Argonne NATIONAL LABORATORY

ANL/EVS/AGEM/TR-07-04

Investigation of Contaminant Sources at Navarre, Kansas

Environmental Science Division

USDA United States Department of Agriculture

Work sponsored by Commodity Credit Corporation,
United States Department of Agriculture

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by
Applied Geosciences and Environmental Management Section
Environmental Science Division, Argonne National Laboratory

July 2007

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Notation

AGEM	Applied Geosciences and Environmental Management
AMSL	above mean sea level
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BGL	below ground level
°C	degree(s) Celsius
CAS	Corrective Action Study
CCC	Commodity Credit Corporation
CD	compact disc
CLP	Contract Laboratory Program
COC	chain of custody
cpm	count(s) per minute
CPT	cone penetrometer
1,2-DCA	1,2-dichloroethane
DF	dilution factor
EPA	U.S. Environmental Protection Agency
ESC	Expedited Site Characterization
ft	foot (feet)
g	gram(s)
gal	gallon(s)
GC-MS	gas chromatograph-mass spectrometer
gpm	gallon(s) per minute
hr	hour(s)
in.	inch(es)
KDHE	Kansas Department of Health and Environment
KGS	Kansas Geological Survey
µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
µm	micrometer(s)
µS/cm	microsiemen(s) per centimeter
MCL	maximum contaminant level
mg/L	milligram(s) per liter
mi	mile(s)
min	minute(s)
mL	milliliter(s)

NAD	North American Datum
NAVD	North American Vertical Datum
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RBSL	Risk Based Screening Level (Kansas Tier 2)
RPD	relative percent difference
SDG	sample delivery group
TOC	top of casing
TU	tritium unit(s)
USDA	U.S. Department of Agriculture
VOC	volatile organic compound

Investigation of Contaminant Sources at Navarre, Kansas

Summary of Findings

The results of the 2006 investigation of contaminant sources at Navarre, Kansas, clearly demonstrate the following:

- Sources of carbon tetrachloride contamination were found on the Navarre Co-op property. These sources are the locations of the highest concentrations of carbon tetrachloride found in soil and groundwater at Navarre. The ongoing groundwater contamination at Navarre originates from these sources.

- The sources on the Co-op property are in locations where the Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA) never conducted grain storage operations.

- No definitive sources of carbon tetrachloride were identified on the portion of the current Co-op property formerly used by the CCC/USDA.

- The source areas on the Co-op property are consistent with the locations of the most intense Co-op operations, both historically and at present. The Co-op historically stored carbon tetrachloride for retail sale and used it as a grain fumigant in these locations.

- The distribution patterns of other contaminants (tetrachloroethene and nitrate) originating from sources on the Co-op property mimic the carbon tetrachloride plume. These other contaminants are not associated with CCC/USDA operations.

- The distribution of carbon tetrachloride at the Co-op source areas, particularly the absence of contamination in soils at depths less than 20 ft below ground level, is consistent with vertical migration into the subsurface through a conduit (well Co-op 2), with subsequent lateral migration through the subsurface.

- The groundwater flow direction, which is toward the west-northwest, is not consistent with migration of carbon tetrachloride in groundwater from the former CCC/USDA property to the source areas on the Co-op property.

- The absence of soil and groundwater contamination along surface drainage pathways on the former CCC/USDA property is not consistent with migration of carbon tetrachloride in surface water runoff from the former CCC/USDA property to the source areas on the Co-op property.

- The contamination detected in soil and groundwater samples collected along the northern boundary of the former CCC/USDA facility can be attributed to migration from the Co-op sources or to operations of the Co-op on the property after CCC/USDA operations ended.

- The southern boundary of the Co-op property has expanded over time, so that the Co-op has operated for a lengthy period in all areas previously leased by the CCC/USDA (Figure S.1). The Co-op began expanding onto the former CCC/USDA property in 1969 and has operated on that property longer than the CCC/USDA did. The use of carbon tetrachloride as a grain fumigant was standard industry practice until 1985, when the compound was banned by the U.S. Environmental Protection Agency.

- Petroleum-related contamination was detected on the southern part of the former CCC/USDA property. This contamination is associated with aboveground storage tanks that are owned and operated by the Co-op.

The major findings of the 2006 investigations are summarized in greater detail below. The 2006 investigation was implemented by the Environmental Science Division of Argonne National Laboratory on behalf of the CCC/USDA.

Findings Based on Technical Data

- **Findings Related to the Co-op Property**

  - Two clear source areas for carbon tetrachloride contamination in groundwater were identified on the Co-op property: one near the south door of the flat storage building, and the other near the former well Co-op 2 and the former Co-op chemical storage area. The CCC/USDA never leased or used this property. Source areas are generally defined as zones of highest contaminant concentrations in soil or groundwater (EPA 2007). The highest concentrations of carbon tetrachloride in soils and groundwater detected during the 2006 investigation occurred at the two locations identified as source areas. Carbon tetrachloride concentrations as high as 454 µg/kg in soil and 866 µg/L in groundwater were detected near the south door of the Co-op's flat storage building; concentrations as high as 1,094 µg/kg in soil and 3,104 µg/L in groundwater were detected in the vicinity of former well Co-op 2 and the former Co-op chemical storage area.

  - The carbon tetrachloride contaminant distribution on the Co-op property indicated the presence of subsurface soil sources for the contamination found in groundwater at Navarre. The highest soil and groundwater concentrations were detected in the vicinity of former well Co-op 2, which could have served as a conduit for vertical contaminant migration. At boreholes in the source areas, high carbon tetrachloride concentrations were found in shallow groundwater samples and in some deeper vadose zone soil samples. In samples collected deeper in the boreholes, the concentrations generally decreased with depth. Figures S.2 and S.3 illustrate the vertical and lateral distribution of carbon tetrachloride in the subsurface at Navarre, along two hydrogeologic cross sections running from north to south and from west to east, respectively. Contamination concentrations detected east, west, north, and south of the source areas (TI-28 and TI-16) were significantly lower than in the source areas, confirming that the primary sources are (1) the area south of the flat

storage building and (2) the area around well Co-op 2 that was formerly used for chemical storage.

- The absence of contamination in the shallow vadose zone throughout the investigation area is consistent with introduction of carbon tetrachloride into the subsurface through a conduit such as former well Co-op 2. The construction details of this well are not known; however, it was plugged in 1991 (KDHE 1992; KGS 2007).

- A total of 10 subsurface soil samples collected on the Co-op property contained carbon tetrachloride concentrations exceeding the Kansas Tier 2 Risk Based Screening Level (RBSL) of 200 µg/kg for the soil-to-groundwater protection pathway; 55 groundwater samples collected on this property exhibited carbon tetrachloride concentrations exceeding the RBSL (and the maximum contaminant level [MCL]) of 5 µg/L for this compound in groundwater.

- Nitrate and tetrachloroethene were detected in groundwater samples collected on the Co-op property at the same source areas. The contaminant plumes of both compounds mimic the carbon tetrachloride plume. The maximum concentrations of nitrate (344 mg/L) and tetrachloroethene (3.4 µg/L) in the 1991 sampling event occurred at well Co-op 2 (KDHE 1992). These compounds are not associated with CCC/USDA operations.

- The Co-op's southern property boundary has expanded over time. This growth is illustrated in Figure S.1. The Co-op operations now encompass the entire area that the CCC/USDA formerly leased. Co-op operations have involved the storage, handling, mixing, and use of fertilizers and chemicals, including carbon tetrachloride. The Co-op has operated for years at the identified source areas and on the former CCC/USDA property, but the CCC/USDA never exclusively operated on or used any part of the Co-op property where the Co-op did not also operate.

- **Findings Related to the Former CCC/USDA Property**

  - No definitive source areas for carbon tetrachloride were found on the former CCC/USDA property. Contaminant patterns adjacent to and on the northern part of the former CCC/USDA property were consistent with migration through the subsurface from the source areas identified on the Co-op property.

  - No soil samples collected on or adjacent to the former CCC/USDA property exhibited carbon tetrachloride concentrations above the RBSL of 200 µg/kg for the soil-to-groundwater protection pathway. Moreover, carbon tetrachloride was not detected above the method quantitation limit of 10 µg/kg in any vadose zone soil sample collected on or adjacent to the former CCC/USDA property, except at location TI-4, near the northern end of the property and also near the Co-op source areas.

  - Sixteen groundwater samples collected on or adjacent to the former CCC/USDA property (near the source areas identified on the Co-op property) exhibited carbon tetrachloride concentrations exceeding the RBSL of 5 µg/L, though the levels were significantly lower than in samples from the Co-op property. These 16 groundwater samples were all taken from locations on the northern third of the former CCC/USDA property, near the Co-op source areas. The carbon tetrachloride contamination in these samples can be attributed to migration through the subsurface from the Co-op source areas.

- **Findings Related to Surface Drainage**

  - Soil and groundwater samples collected along surface drainage pathways on the former CCC/USDA property (locations TI-12, TI-8, TI-7, TI-2; Figure S.1) did not contain significant concentrations of carbon tetrachloride and did not exhibit contaminant distribution patterns that would demonstrate a source on the former CCC/USDA property in 2006 or earlier.

- The absence of significant carbon tetrachloride contamination in vadose zone soils collected along surface drainage pathways on the former CCC/USDA property is not consistent with an explanation asserting that the contamination detected at the identified source areas on the Co-op property originated on the former CCC/USDA property and migrated to the Co-op via surface drainage.

- **Findings Related to the Carbon Tetrachloride Plume**

  - Figure S.4 illustrates the lateral distribution of maximum carbon tetrachloride concentrations in groundwater samples collected from monitoring wells and boreholes in 2006, with the groundwater gradient. The analytical data indicate that the carbon tetrachloride plume in groundwater extends a minimum of 1,500 ft directly downgradient from the source areas identified on the Co-op property and is continuing to migrate toward the west-northwest. The concentration gradients identify the point of origin as the source areas identified on the Co-op property in the vicinity of (1) the south door of the flat storage building and (2) the former chemical storage area and well Co-op 2.

- **Findings Related to the Groundwater Flow Direction**

  - The groundwater flow direction historically has been toward the west-northwest (KDHE 1998a; Papadopulos 2001). Recent groundwater level measurements indicate similar flow patterns. The historical groundwater gradient is not consistent with migration from the former CCC/USDA property onto the Co-op property.

  - The significantly lower concentrations of carbon tetrachloride detected in soil and groundwater on the former CCC/USDA property than at the identified source areas on the Co-op property are also inconsistent with migration from the former CCC/USDA property to the Co-op property.

Related Historical Information

- In the standard practice of the time, the Co-op used carbon tetrachloride as a grain fumigant before the compound was banned in 1985. The Co-op also stored carbon tetrachloride for retail sale (Co-op 2000 [Exhibit 89]).

- The flat storage building on the Co-op property was used to store both grain and chemicals. Carbon tetrachloride was used by the Co-op until the mid 1980s and was used on several occasions in the 1970s at the flat storage building and other locations (iSi 2004; USDA 2007). (Carbon tetrachloride was banned by the EPA in December 1985.)

- Wheat was stored in the Co-op's flat storage building from 1974 to 1983. Milo was stored in the northern part of the building, and chemicals were stored in the southern part from 1990 to 1995 (Johnson 2000; Warders 2000). The earlier uses of the flat storage building, from its construction in 1958 to 1974, are not documented in the historical record.

- The area between the south door of the flat storage building and the dry fertilizer storage building has been and continues to be used intensely by the Co-op for storing, handling, and mixing chemicals. A 1971 aerial photograph (Figure S.5, right) documents the presence of the flat storage building (built in 1958), along with chemical storage containers. The former well (Co-op 2) adjacent to the former chemical storage area was used for chemical mixing and equipment washing (Warders 2000; Servi-Tech [1993] specified the location of well Co-op 2). With these adjacent operations, this well could have provided a direct conduit for contamination to enter the subsurface and migrate to groundwater.

- The Co-op used water from well Co-op 2 for mixing chemicals at and near the source areas (Warders 2000).

- In the 1991 sampling, the maximum carbon tetrachloride concentrations occurred at well Co-op 2 (511 µg/L) and well Co-op 3 (535 µg/L) (KDHE 1992). (Well Co-op 3 lies approximately 450 ft west-northwest

(downgradient) from the location of former well Co-op 2.) Well Co-op 2 was still in use at the time of the 1991 sampling (approximately 25 years after CCC/USDA operations ended at Navarre), but it was plugged later that year (KGS 2007).

- The Co-op filled grain cars on the railroad tracks (Voit 2000) and fumigated the grain with carbon tetrachloride (iSi 2004).

- Grain storage by the CCC/USDA was limited in time. The CCC/USDA operation began in 1954, and removal of its bins began in 1963. By 1965 (Figure S.5, left), only five CCC/USDA bins remained. The use of carbon tetrachloride by other parties continued for another 20 years. For comparison, the Co-op began its operations in about 1919 and was reaching its full capacity by 1965 (Figure S.5, left). The Co-op's grain storage capacity has remained at approximately the same level to the present, though its operation has expanded southward to encompass the entire former CCC/USDA facility (Figure S.1).

- The grain storage capacity of the CCC/USDA operation was limited to a maximum of approximately 97,500 bushels. This capacity was calculated for 30 bins, as shown in the 1957 aerial photograph (Figure S.1, left), and an average capacity of 3,250 bushels per bin. For comparison, the Co-op's current capacity is approximately 895,000 bushels (BNSF Railway 2007). The Co-op's capacity was similar in 1965 (Figure S.5, left). The grain storage capacity ratio for the two facilities is approximately 1:9 (CCC/USDA capacity to Co-op capacity). The ratio of grain fumigant used during each year of operation could reasonably be similar. The CCC/USDA used carbon tetrachloride as a grain fumigant during its lease period (1954-1966). This was the standard industry practice at the time. The CCC/USDA did not store or mix fumigants on its property (PRC 1992). The Co-op reportedly used the pesticide Phostoxin in addition to the 80:20 mixture of carbon tetrachloride:carbon disulfide (Stroda 2000).

- Carbon tetrachloride was brought to the CCC/USDA facility in a fumigant mixture ready for application (PRC 1992). No excess fumigant was left on the property to be stored or discarded.

- Nitrate contamination in groundwater at Navarre has historically been widespread. The maximum nitrate concentration detected was 344 mg/L, at well Co-op 2, in 1991 (KDHE 1992). This well was plugged on September 5, 1991 (KGS 2007); its construction details are not known. A 1997 investigation by the Kansas Department of Health and Environment (KDHE) concluded that an ongoing nitrate source exists in the subsurface soils in the former chemical storage area, where liquid and dry fertilizers were stored and periodically released through spills and leakage. The KDHE linked the 1991 results for nitrate in groundwater from the Co-op 2 well (344 mg/L) to releases at the fertilizer storage area. Well KDHE-2 also contained a high concentration of nitrate (330 mg/L) in 1991; the KDHE interpreted this to be the result of migration from well Co-op 2 along the eastern drainage ditch on the Co-op property (KDHE 1998a). The nitrate contamination at Navarre is directly related to Co-op operations and is unique to the Co-op.

- Tetrachloroethene (also called tetrachloroethylene) was found in well Co-op 2 in 1991, at 3.4 µg/L (KDHE 1992). This contaminant is unique to the Co-op at Navarre.

- Additional documentation of spillage on the Co-op property includes stained soil around the former bulk liquid storage tanks just north of the dry fertilizer building (Servi-Tech 1993, Photo 9); removal of 3 tons of soil contaminated with oil (Linn 1990); and evidence of runoff and damaged vegetation in a drainage ditch adjacent to bulk liquid fertilizer tanks, as observed by KDHE staff on June 6, 1991 (KDHE 2004).

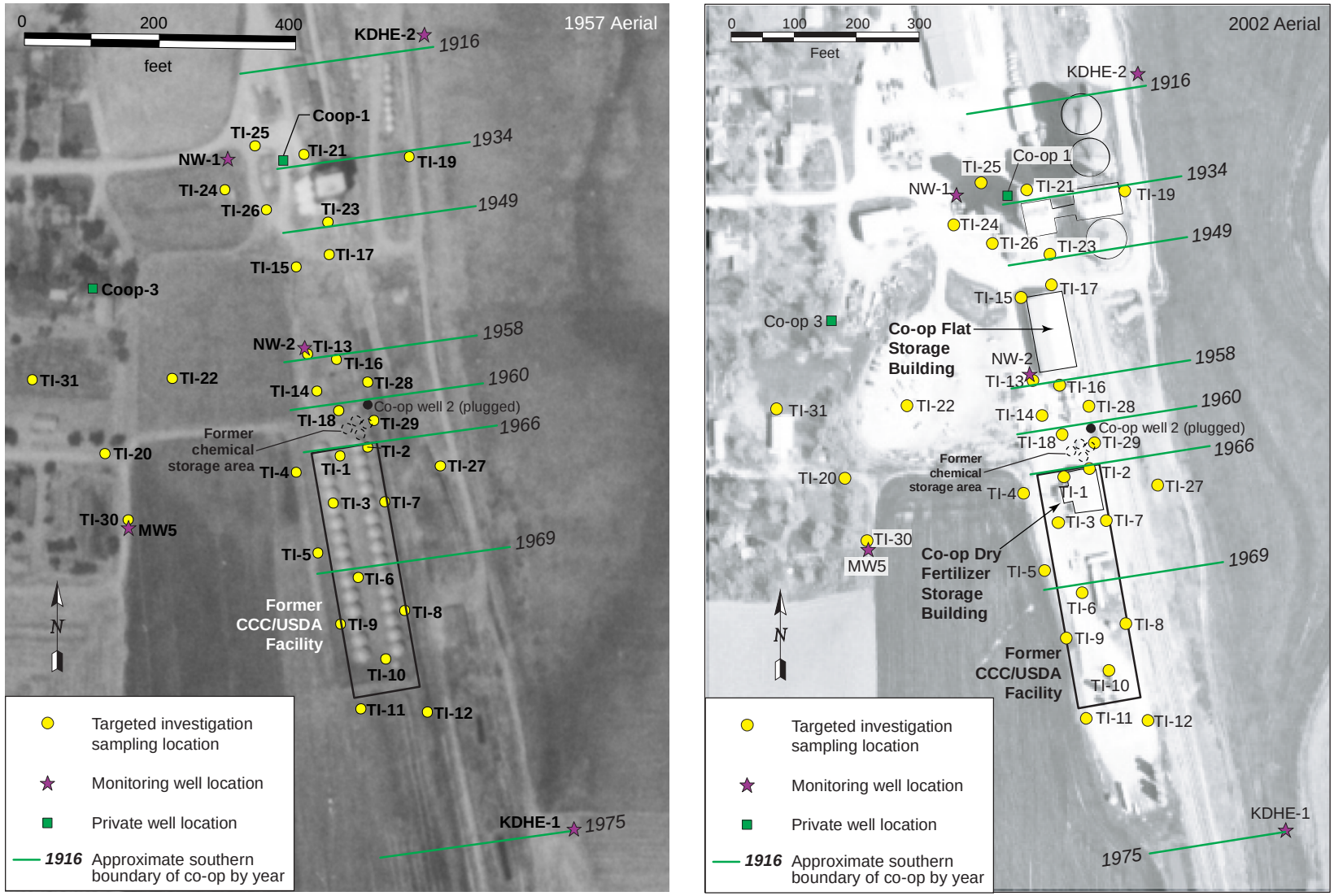

FIGURE S.1 Locations of the former CCC/USDA facility, monitoring and private wells, and 2006 investigation activities at Navarre, with the approximate southern Co-op boundary in each year of the Co-op's southward expansion. Source of photographs: USDA (1957); NAIP (2002).

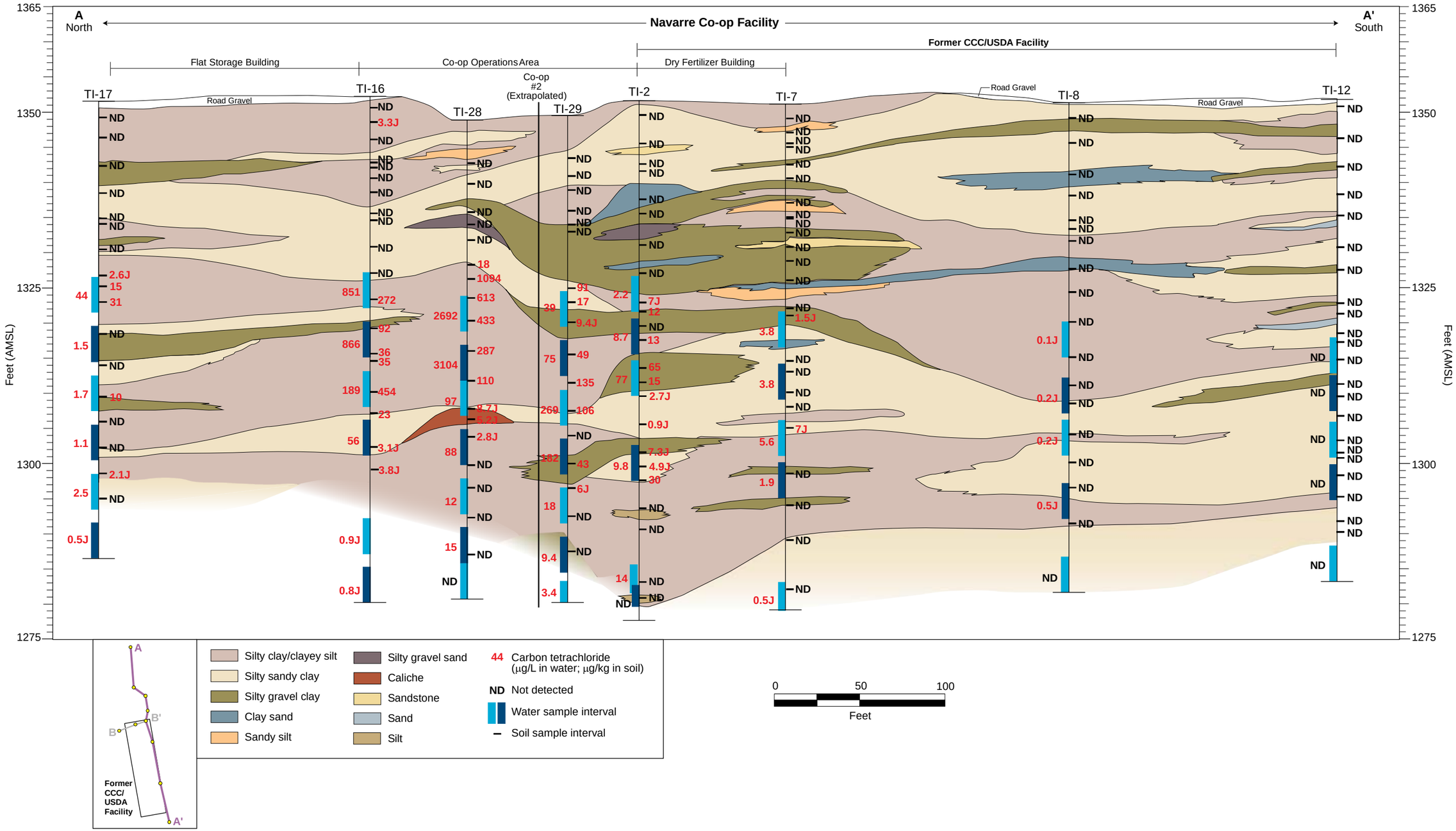

FIGURE S.2 Hydrogeologic cross section A-A′ (vertically exaggerated), showing the vertical and lateral distribution of carbon tetrachloride in subsurface soil and groundwater.

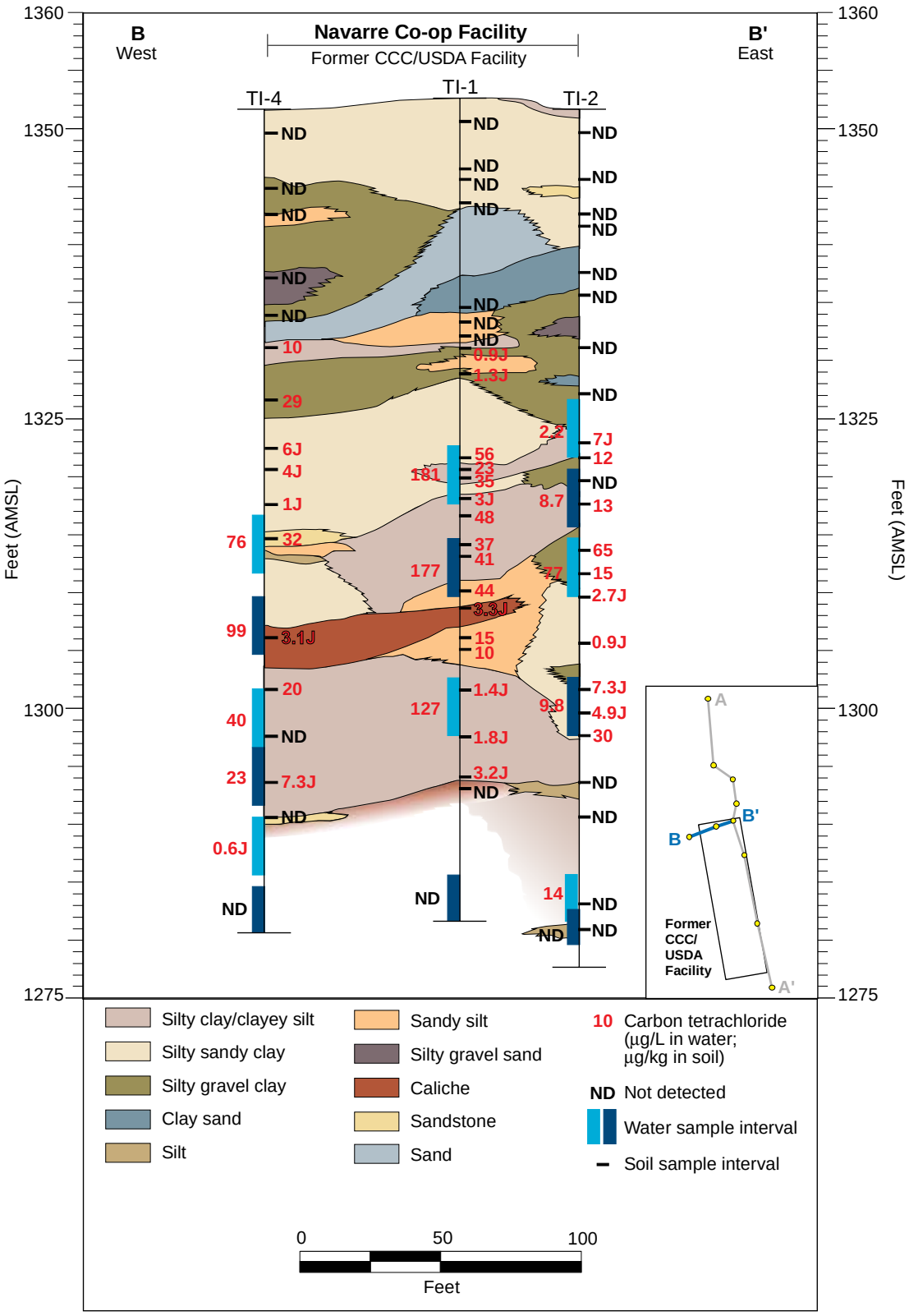

FIGURE S.3 Hydrogeologic cross section B-B′ (vertically exaggerated), showing the vertical and lateral distribution of carbon tetrachloride in subsurface soil and groundwater.

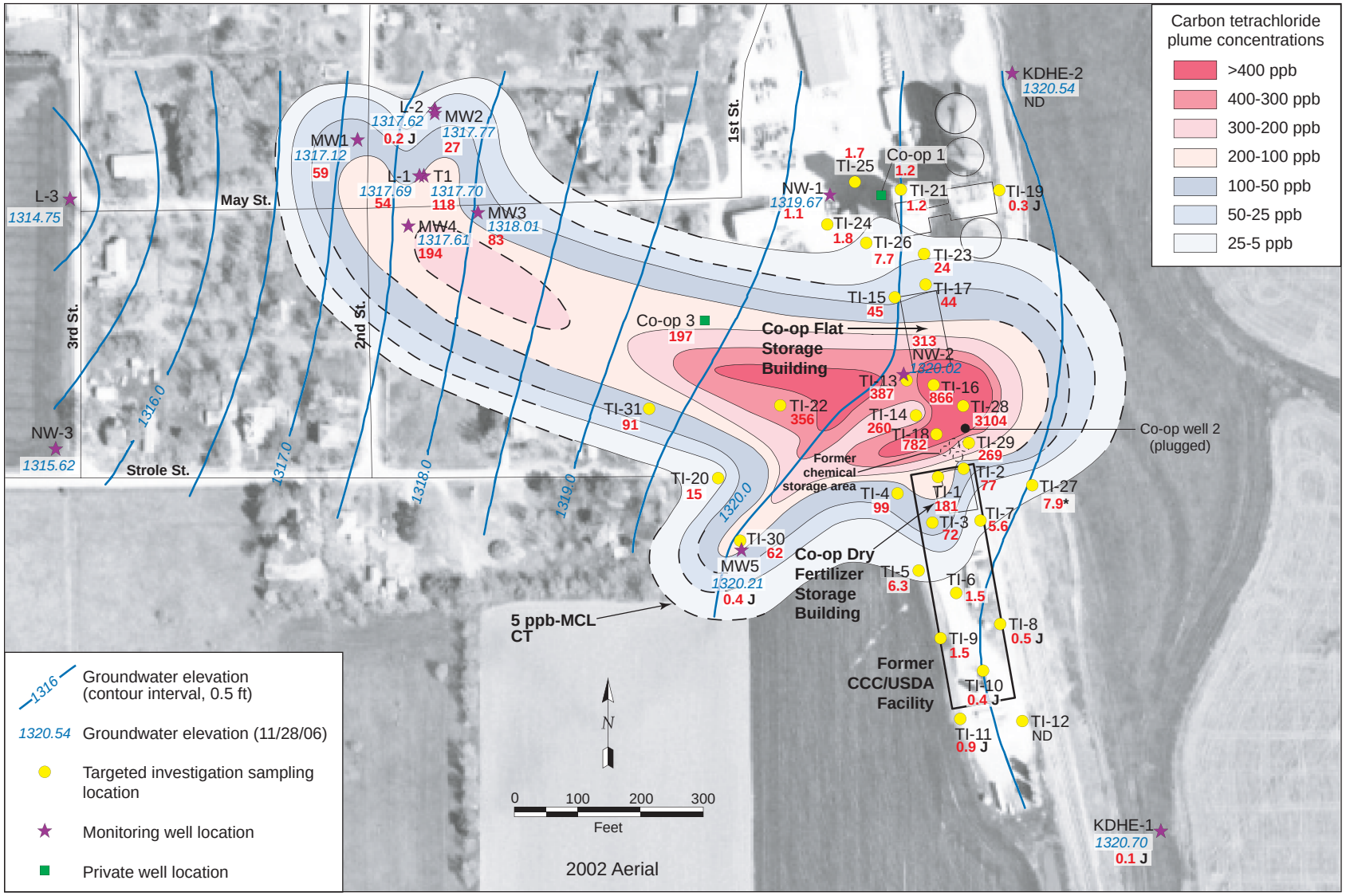

FIGURE S.4 Interpreted distribution of carbon tetrachloride in the groundwater plume, 2006, with groundwater elevations on November 28, 2006. Source of photograph: NAIP (2002).

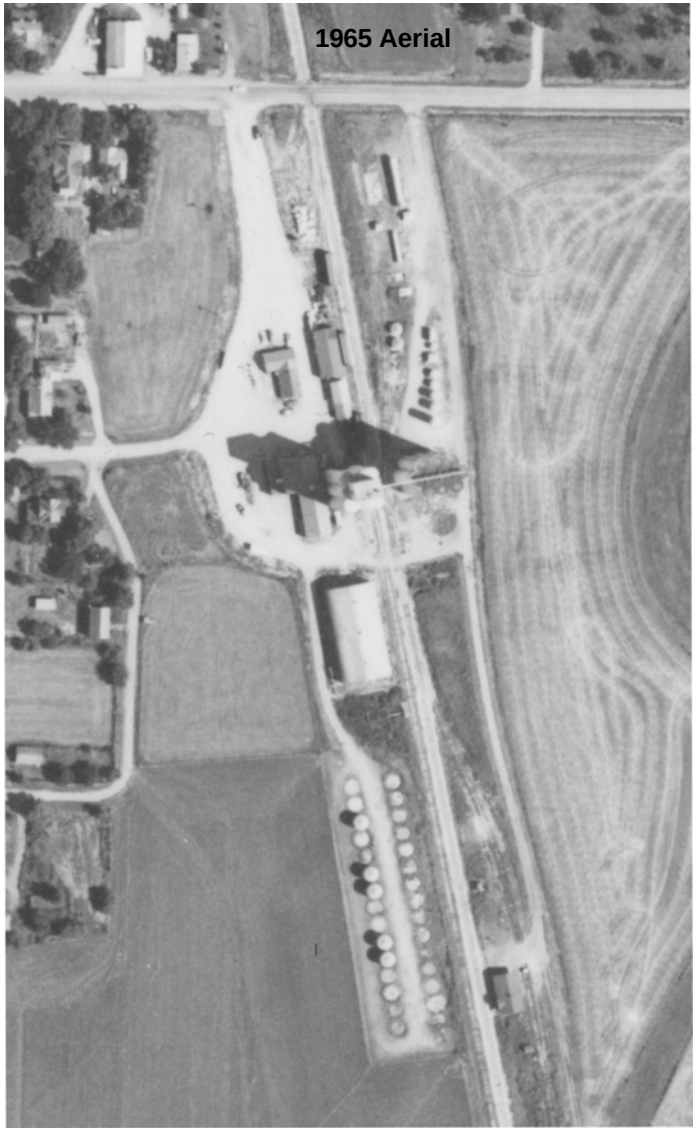

FIGURE S.5 Grain storage facilities at Navarre in 1965 (left) and 1971 (right). Bins are distinguished from foundations in the 1965 photograph (left) by shadows. Source of photographs: USDA (1965, 1971).

1 Introduction

The Environmental Science Division of Argonne National Laboratory implemented the 2006 investigation at Navarre on behalf of the Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA). This investigation was designed to (1) investigate specific areas of concern for potential sources and potential source areas that might be associated with the past use of carbon tetrachloride and (2) evaluate migration pathways for previously identified carbon tetrachloride contamination in groundwater at Navarre. The investigation focused on the properties formerly leased by the CCC/USDA and currently owned by the Co-op. The specific areas of concern are shown in Figure 1.1.

A source is the place or object where the contaminant of concern is released. Source areas are defined as zones of highest contaminant concentrations in the soil or groundwater, or both (EPA 2007).

1.1 Objectives

Three objectives were proposed in the work plan (Argonne 2006). The work plan was approved by the Kansas Department of Health and Environment (KDHE) on February 20, 2006 (Carey 2006). The three objectives were as follows:

1. Determine groundwater contaminant levels and groundwater flow direction in the general study area.

2. Investigate the former CCC/USDA property for soil source areas and pathways for contaminant migration to groundwater.

3. Investigate specific areas of concern (flat storage building, former waste pit area adjacent to former well Co-op 2, and feed mill building) on the Co-op property that may be associated with the past use of carbon tetrachloride.

The investigation locations on the former CCC/USDA property and in the specific areas of concern were chosen on the basis of previously collected analytical data that indicated the presence of carbon tetrachloride in the subsurface, along with information from Co-op

employees that grain and chemical storage and handling occurred at these locations. (Refer to Summary of Findings for a discussion of related historical information.) This report details and interprets the data collected during the 2006 investigation at Navarre. The investigation met the objectives defined in the work plan.

1.2 Background and Previous Investigations

The CCC/USDA operated a grain storage facility at Navarre, Kansas, from 1954 to approximately 1966, on property adjacent to the Navarre Co-op's operation. Over the years, the Co-op has expanded across the area formerly occupied by the CCC/USDA (Figure 1.2).

The unincorporated town of Navarre, Kansas, is located in Logan Township of Dickinson, County, in the eastern part of the state (Figure 1.3). The town lies about 95 mi west of Topeka, Kansas. The Dickinson County Clerk's Office reported that the 2006 population of Logan Township was approximately 208.

In 1991, the KDHE conducted a preliminary assessment of groundwater contamination detected in samples collected in 1990-1991 from drinking water wells in Navarre (KDHE 1992). In the preliminary assessment, the KDHE (1992) indicated that the carbon tetrachloride and nitrate contamination in groundwater resulted from activities conducted on the former CCC/USDA property and at the active Navarre Farmer's Union Co-op (the Co-op). At that time, the Co-op was working with the KDHE to resolve the problem by assisting the KDHE in development of a plan to provide a new drinking water supply to the residents of Navarre.

Site characterization studies conducted for the CCC/USDA by Argonne in the early 1990s (Argonne 1992, 1993, 1995) indicated that two aquifers (upper and lower) were present in Navarre. Separate aquifers could not be validated during the 2006 investigation. The investigations conducted in the 1990s had limited scopes of work and limited investigative techniques. In contrast, new technologies, coupled with the greater detail achieved in the 2006 investigation, enabled a more thorough study of the lithologic and hydrologic properties at Navarre.

In addition to groundwater samples, Argonne analyzed subsurface soil samples collected in 1993 at several locations on the former CCC/USDA property. Elevated carbon tetrachloride

levels were detected in subsurface soil near the north end of the former CCC/USDA facility (Argonne 1993). During previous investigations, Argonne was unable to gain access to the Co-op area north of the former CCC/USDA facility for further investigation of soil sources of carbon tetrachloride (Argonne 2006).

In 2000, S.S. Papadopulos conducted a study on the Co-op and former CCC/USDA properties for the U.S. Department of Justice (Figure 1.4; Papadopulos 2000). The investigation included a soil gas survey at depths of 10 ft and 17.5-26.5 ft below ground level (BGL) and groundwater sampling at depths of 35.5-50 ft BGL. The soil gas survey was conducted in the vicinity of the feed mill, the flat storage building, former well Co-op 2 and chemical storage areas, and the dry fertilizer building. The groundwater survey was conducted in the vicinity of the flat storage building, former well Co-op 2, and the former chemical storage areas on the Co-op property. The soil gas survey and groundwater analyses showed elevated levels of carbon tetrachloride at locations throughout the investigation target area (Figure 1.4).

Because of concerns about potential health hazards, the CCC/USDA funded construction of a connection with the Dickinson County Rural Water District #2 supply line to provide all households and businesses in Navarre with access to safe drinking water (KDHE 1998b). This project was completed on August 6, 2001 (KDHE 2001).

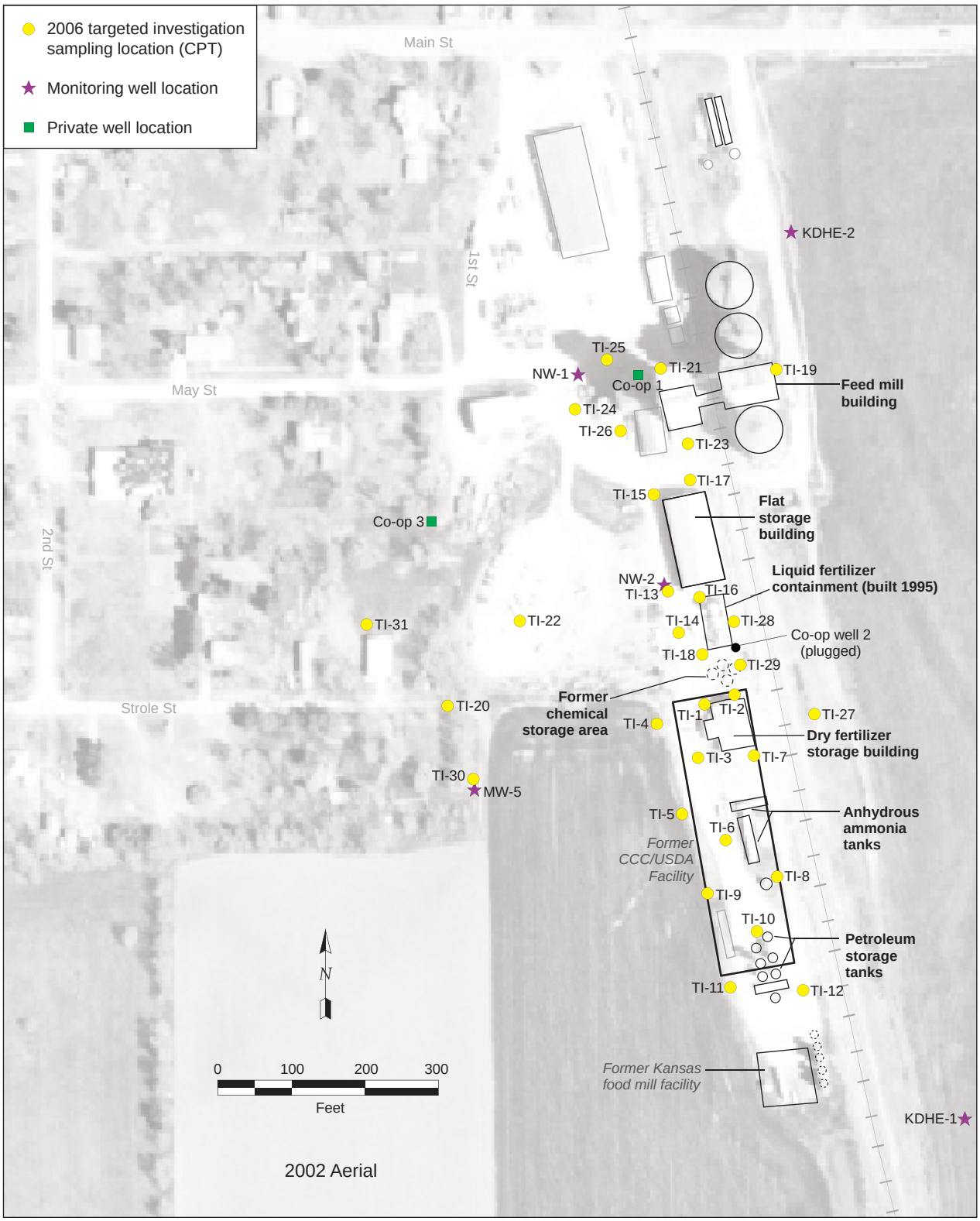

FIGURE 1.1 Specific areas of concern on the properties formerly leased by the CCC/USDA and currently owned by the Co-op. Source of photograph: NAIP (2002).

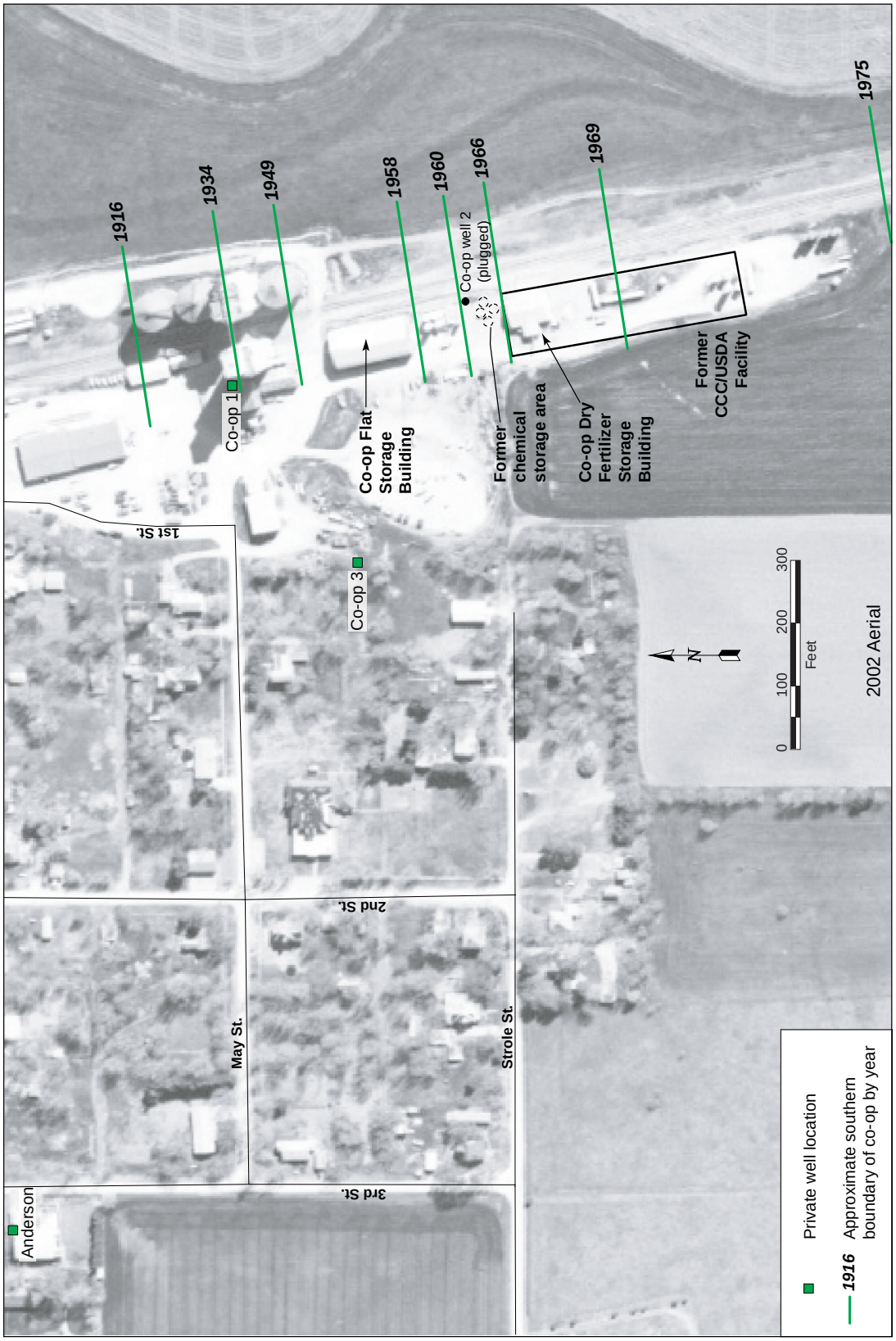

FIGURE 1.2 Historical property ownership in the investigation area at Navarre. Source of photograph: NAIP (2002).

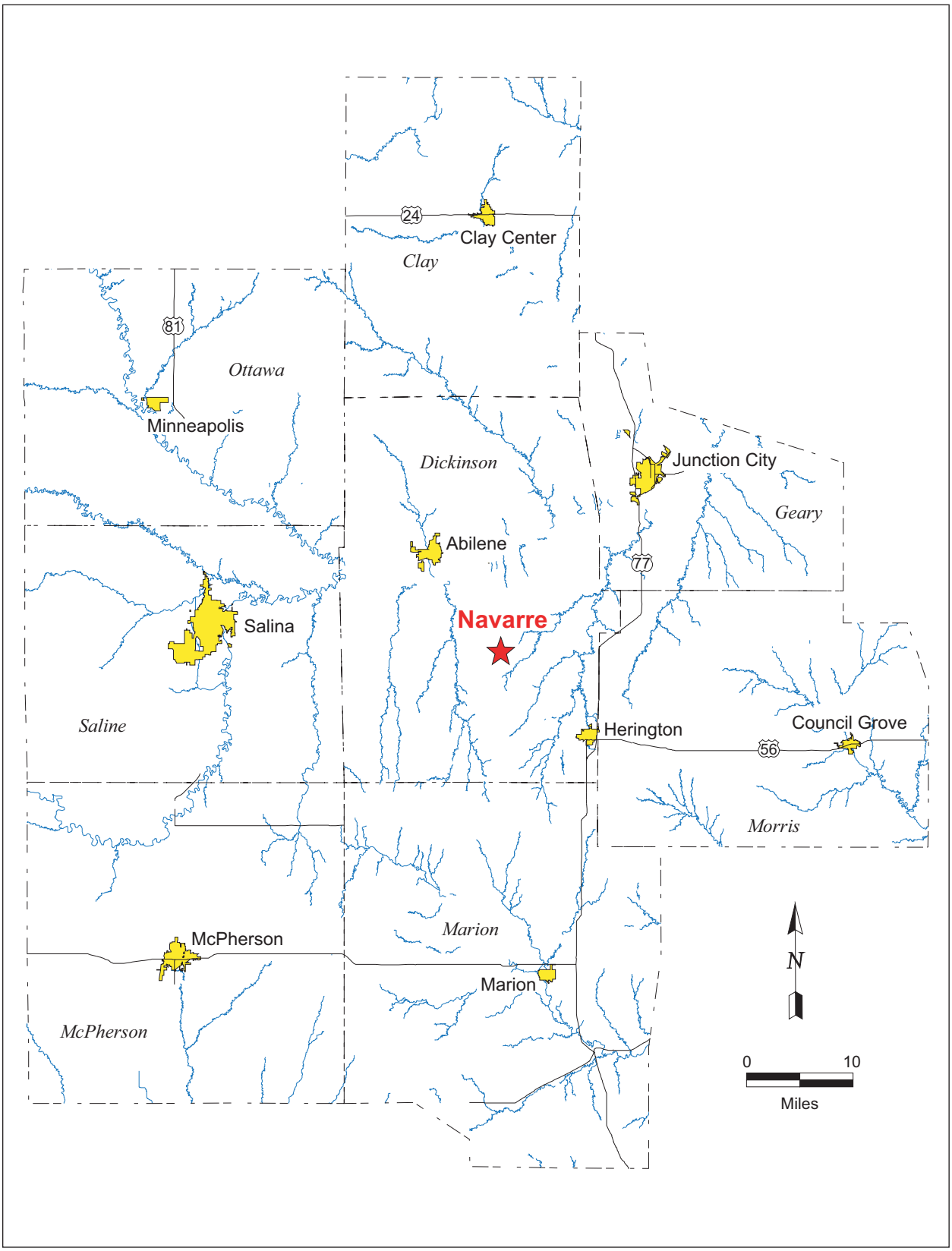

FIGURE 1.3 Location of Navarre, Kansas.

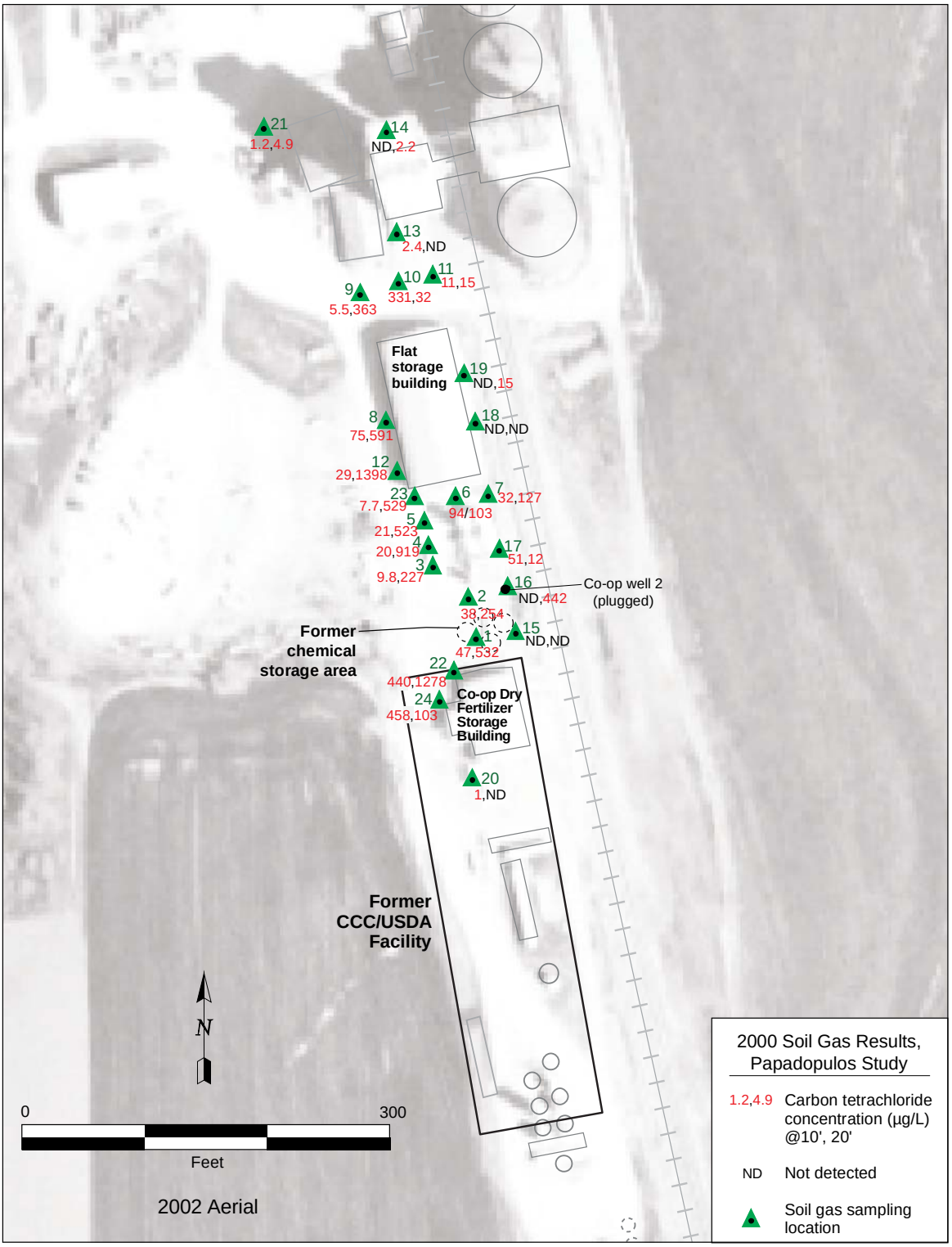

FIGURE 1.4 Results of soil gas analyses in the 2000 Papadopulos study. Source of data: Papadopulos (2000). Source of photograph: NAIP (2002).

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2 Investigative Methods

The 2006 investigation at Navarre was performed by using an iterative process of data collection, evaluation, and interpretation during field activities. This methodology ensured that the data necessary to achieve the specific technical objectives listed in Section 1 were obtained. Throughout data evaluation and interpretation, the CCC/USDA and KDHE project managers were kept informed of the analytical results as they were received, and modifications to the work plan (Argonne 2006) were made with their input and approval.

Throughout the field program, a comprehensive quality assurance/quality control (QA/QC) program was implemented to confirm the reliability of all information as it accumulated. Procedures for the individual techniques employed by Argonne at this site are in the *Master Work Plan* (Argonne 2002). This section provides a brief overview of the methods used to implement this investigation, and it identifies modifications made to the site-specific work plan (Argonne 2006) in response to data acquired during the field work.

The primary data collected in the 2006 investigation at the Navarre site included electronic logs and soil and groundwater samples. Electronic logs were used to evaluate the site lithology and determine target depths for groundwater samples. These data were collected by using the electronic capabilities of Argonne's cone penetrometer (CPT). Potential contaminant source areas were investigated at numerous locations by collecting soil and groundwater samples with the CPT.

All locations investigated in 2006 are shown in Figure 2.1. The activities at each location are summarized in Table 2.1.

The initial task consisted of attempts to collect electronic profiles from ground surface to bedrock at 17 CPT locations, in accordance with the procedures detailed in the *Master Work Plan* (Argonne 2002). The electronic logs are in Appendix A.

Soil samples were collected at 20 CPT locations at 4-ft intervals, from the ground surface to the top of the saturated zone (at most locations) or to bedrock (at some locations). Because of the slow recharge rate at many locations, the depth to the saturated zone was estimated on the basis of groundwater levels in nearby wells and CPT locations. Soil samples were collected by using a 4-ft-long modified Macro-Core® soil sampler that allowed for discrete or continuous

collection of soil samples at specified depths. Lithologic descriptions of soil cores are in Appendix A.

Groundwater samples were collected at 31 CPT locations, at 5-ft intervals from the static water level to bedrock at most locations. Targeted sampling depths were determined from the electronic logs and lithologic descriptions. After targeted sampling intervals were identified, the CPT rods were pushed to the specified depth. The lead CPT rod was fitted with a 5-ft polyvinyl chloride (PVC) screen inserted inside the rod and attached to a disposable tip. After the target depth was reached, PVC riser pipe was inserted into the rods and threaded to the screen. The rods were then withdrawn 5 ft to expose the screened area. If groundwater was not initially present, the CPT rods were withdrawn completely, and the temporary well was left in place until enough groundwater accumulated for sampling. Temporary wells were set at each location to the extent necessary to accomplish the investigational objectives. All temporary wells were subsequently plugged in accordance with KDHE regulations.

Soil and groundwater samples were collected in laboratory-approved containers, sealed, placed on ice (dry ice for soils), and transported to the Applied Geosciences and Environmental Management (AGEM) Laboratory at Argonne National Laboratory for preparation and analysis for volatile organic compounds (VOCs), including carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and 1,2-dichloroethane (1,2-DCA). Selected groundwater samples were analyzed for tritium. In addition, some soil samples were submitted for grain size analysis.

2.1 Methods to Determine Groundwater Contaminant Levels and Groundwater Flow Direction in the General Study Area

The groundwater flow direction was determined from water level measurements collected in 14 monitoring wells (Figure 2.2).

Before groundwater samples were collected for VOCs analyses, each well was purged in accordance with procedures in the *Master Work Plan* (Argonne 2002). To determine contaminant concentrations in the general study area, groundwater samples were collected from 14 existing and new monitoring wells and from 3 private wells (Anderson, Co-op 1, and Co-op 3; Figure 2.3).

The work plan (Argonne 2006) proposed sampling 12 monitoring wells and 2 private wells. The sample locations added during field activities included newly installed monitoring well MW5, existing monitoring well NW-3, and the Anderson private well. The additions were made for the following reasons:

- New monitoring well MW5 was installed during the 2006 investigation at the TI-30 location; it became the 14th monitoring well sampling location. The well was installed because the CPT achieved a depth of 88.5 ft BGL (the maximum reached in the investigation) at this location, offering the opportunity to monitor the deepest accessible portion of the aquifer.

- Monitoring well NW-3 was added after it was located by using a metal detector. Previous attempts to locate that well had been unsuccessful. Several attempts to locate monitoring well NW-4 with a metal detector during the 2006 investigation were unsuccessful.

- The Anderson private well is located approximately 1 block north of monitoring well L-3. The data logger installed at well L-3 showed periodic drawdown with an unknown cause. A search of the area showed one known private well (Anderson well) near monitoring well L-3. To gauge its possible effects on the water level at well L-3, the Anderson well was pumped for a 24-hr period. Three groundwater samples were collected from this well — one at the start of pumping, one after several hours of pumping, and one at the end of the pumping period — to monitor the contaminant concentrations over time.

2.2 Methods to Identify Soil Source Areas Related to the Former CCC/USDA Property and Pathways for Contaminant Migration to Groundwater

The potential soil source areas and contaminant migration pathways were thoroughly investigated by collecting soil samples (Figure 2.4) and groundwater samples (Figure 2.3) in vertical profiles at 12 CPT locations (TI-1 through TI-12) on and near the former CCC/USDA property. For this technical objective, the work plan (Argonne 2006) proposed collecting soil and groundwater samples in vertical profiles at 12 CPT locations on or adjacent to the former CCC/USDA property, as well as installation of monitoring wells through use of conventional

drilling methods in any borehole drilled into the deeper saturated zone (previously differentiated as the lower aquifer). The KDHE approved the 12 sample locations specified in the work plan (Carey 2006). These included locations along surface drainage pathways and near former grain bins.

Vertical-profile soil and groundwater samples were collected at the 12 proposed CPT (TI-1-TI-12) locations on and adjacent to the former CCC/USDA property. Four of the locations (TI-1, TI-2, TI-3, and TI-7) were positioned on the perimeter of the dry fertilizer building.

Monitoring wells were not installed on the former CCC/USDA property, because the presence of two separate aquifers could not be validated, and analytical data did not indicate a definitive source area to be present on the former CCC/USDA property. The lithology showed no distinctive continuous consolidated layers or bedrock to be present in the upper part of the lithologic section. Furthermore, analytical data for soil and groundwater showed no carbon tetrachloride contamination above the AGEM method quantitation limits (10 µg/kg for soil and 1.0 µg/L for water) in samples collected on the former CCC/USDA property at depths from 70 ft to 77.8 ft BGL.

2.3 Methods to Investigate Specific Areas of Concern on the Co-op Property (Flat Storage Building, Former Waste Pit Area Adjacent to Former Well Co-op 2, and Feed Mill Building)

The investigation of specific areas of concern on the Co-op property included collection of soil samples from 8 CPT locations and groundwater samples from 19 CPT locations. Of these target locations, 13 were adjacent to storage buildings and an area that had previously been identified as the location of former well Co-op 2 and chemical storage area. Another 6 locations were upgradient or downgradient from the specific areas of concern on the Co-op property. The following samples were collected specifically to investigate the areas of concern:

- Vertical-profile soil samples at 8 locations adjacent to the flat storage building, former well Co-op 2, and the former chemical storage area: TI-13, TI-14, TI-15, TI-16, TI-17, TI-18, TI-28, and TI-29 (Figure 2.4).

- Vertical-profile groundwater samples at 13 locations adjacent to the feed mill, flat storage building, former well Co-op 2, and the former chemical storage

area: TI-13, TI-14, TI-15, TI-16, TI-17, TI-18, TI-21, TI-23, TI-24, TI-25, TI-26, TI-28, and TI-29 (Figure 2.3).

- Vertical-profile groundwater samples at 6 locations upgradient and downgradient of the specific areas of concern: TI-19, TI-20, TI-22, TI-27, TI-30, and TI-31 (Figure 2.3).

The original scope of work (Argonne 2006) proposed the collection of soil and groundwater samples at up to 22 locations in the specific areas of concern on the Co-op property and at up to 13 additional locations upgradient and downgradient from these areas. In addition, installation of monitoring wells was proposed. The scope of work was modified as analytical data received in the field were discussed with the CCC/USDA and KDHE project managers. All modifications were approved by the CCC/USDA and KDHE project managers. The modifications were as follows:

- No soil and groundwater samples were collected at 7 locations proposed in the KDHE-approved work plan (Argonne 2006), at or near the specific areas of concern. Three of these locations were in an area that was not physically accessible. The decision to eliminate the other 4 locations — along the west side of the flat storage building and former well Co-op 2— was made after discussions with the KDHE and CCC/USDA project managers. Analyses of samples from nearby locations indicated that adequate data had been obtained to confirm a source area in the vicinity of the south door of the flat storage building, former well Co-op 2, and the former chemical storage area.

- No groundwater samples were collected at 4 proposed locations north and west of the feed mill building or at 5 locations south, west, and east of the former CCC/USDA property, because minimal contaminant concentrations had been detected at locations adjacent to these specific areas of concern.

2.4 Methods to Investigate Potential Source Areas Identified on the Former CCC/USDA Property during the Investigation

The original scope of work (Argonne 2006) specified proposing additional work (in consultation with the CCC/USDA and KDHE project managers) if a source area of contamination was detected on the former CCC/USDA facility.

The investigation results did not indicate that a definitive source area was present on the former CCC/USDA property, and therefore additional work was not required.

TABLE 2.1 Summary of activities during the 2006 investigation at Navarre, Kansas.

Location	Type[a]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval	Lithology Log	Cone Penetrometer Sensor Log	Water Level Location
Existing wells										
Co-op 1	DW	1	Unknown	–	–	–	–	–	–	–
Co-op 3	DW	1	Unknown	–	–	–	–	–	–	–
KDHE-1	MW	1	35–55	–	–	–	–	–	–	X
KDHE-2	MW	1	25–45	–	–	–	–	–	–	X
T1	MW	1	40–60	–	–	–	–	–	–	X
MW1	MW	1	43–58	–	–	–	–	–	–	X
MW2	MW	1	42.8–57.8	–	–	–	–	–	–	X
MW3	MW	1	44–59	–	–	–	–	–	–	X
MW4	MW	1	45–60	–	–	–	–	–	–	X
NW-1	MW	1	40–50	–	–	–	–	–	–	X
NW-2	MW	1	35.5–45.5	–	–	–	–	–	–	X
NW-3	MW	1	38–48	–	–	–	–	–	–	X
L-1	MW	1	75–95	–	–	–	–	–	–	X
L-2	MW	1	80–90	–	–	–	–	–	–	X
L-3	MW	1	80–90	–	–	–	–	–	–	X
Anderson	DW	3	68[b]	–	–	–	–	–	–	–
New 2006 locations associated with former CCC/USDA facility										
TI-1	CPT	4	30–71	24	2–59.5	–	–	Yes	Yes	–
TI-2	CPT	6	25–72	23	2–70.7	15	13.2-71.5	Yes	Yes	–
TI-3	CPT	3	32.2–56	16	6–62	4	21-42.5	Yes	Yes	–
TI-4	CPT	6	35–71	16	2–61	3	16-31.5	Yes	–	–
TI-5	CPT	4	28–77.8	16	2–61	–	–	–	Yes	–
TI-6	CPT	4	38–73	15	2–61	–	–	Yes	Yes	–
TI-7	CPT	5	29.5–72	24	2–69	4	33-68.6	Yes	Yes	–
TI-8	CPT	5	31–69.5	17	2–59.7	–	–	–	Yes	–
TI-9	CPT	4	40–64	21	4–69	–	–	Yes	Yes	–
TI-10	CPT	5	40–71	20	4.5–65.5	–	–	–	Yes	–
TI-11	CPT	6	26–70.9	17	2–60.5	–	–	–	Yes	–
TI-12	CPT	5	34–68.7	22	1–61.5	–	–	Yes	Yes	–

TABLE 2.1 (Cont.)

Location	Type[a]	Number of Water Samples	Water Sampling Interval (ft BGL)	Number of Soil Samples	Soil Sampling Interval (ft BGL)	Number of Grain Size Samples	Grain Size Sampling Interval	Lithology Log	Cone Penetrometer Sensor Log	Water Level Location
New 2006 locations on and downgradient from the Co-op property										
TI-13	CPT	6	25–71.8	23	2–58.9	–	–	–	Yes	–
TI-14	CPT	6	26–72.4	24	2–61.25	–	–	Yes	Yes	–
TI-15	CPT	6	15–72.1	20	1–60.75	–	–	–	–	–
TI-16	CPT	6	25–72	19	1.5–53	–	–	Yes	–	–
TI-17	CPT	6	25–65	17	2.25–56.5	–	–	Yes	–	–
TI-18	CPT	7	25–71.5	13	5–61	–	–	–	–	–
TI-19	CPT	7	25–69.5	0	–	–	–	–	–	–
TI-20	CPT	4	35–77	0	–	–	–	–	–	–
TI-21	CPT	6	25–65	0	–	–	–	–	–	–
TI-22	CPT	6	32–73.2	0	–	–	–	–	Yes	–
TI-23	CPT	6	32–71.8	0	–	–	–	–	Yes	–
TI-24	CPT	7	23–74.4	0	–	–	–	–	–	–
TI-25	CPT	7	32–77.2	0	–	–	–	–	–	–
TI-26	CPT	8	25–76.8	0	–	–	–	–	–	–
TI-27	CPT	7	25–71.2	0	–	–	–	–	–	–
TI-28	CPT	7	25–68	18	6–61.75	–	–	Yes	Yes	–
TI-29	CPT	7	25–69.3	17	6–62	–	–	Yes	–	–
TI-30/MW5[c]	CPT, P	8	32–88.5	0	–	–	–	–	Yes	X (MW5)
TI-31	CPT	4	42–75.7	0	–	–	–	–	–	

[a] Types: CPT, cone penetrometer; DW, domestic well; MW, monitoring well; P, piezometer.

[b] Total depth.

[c] Well installed at this location during 2006 investigation.

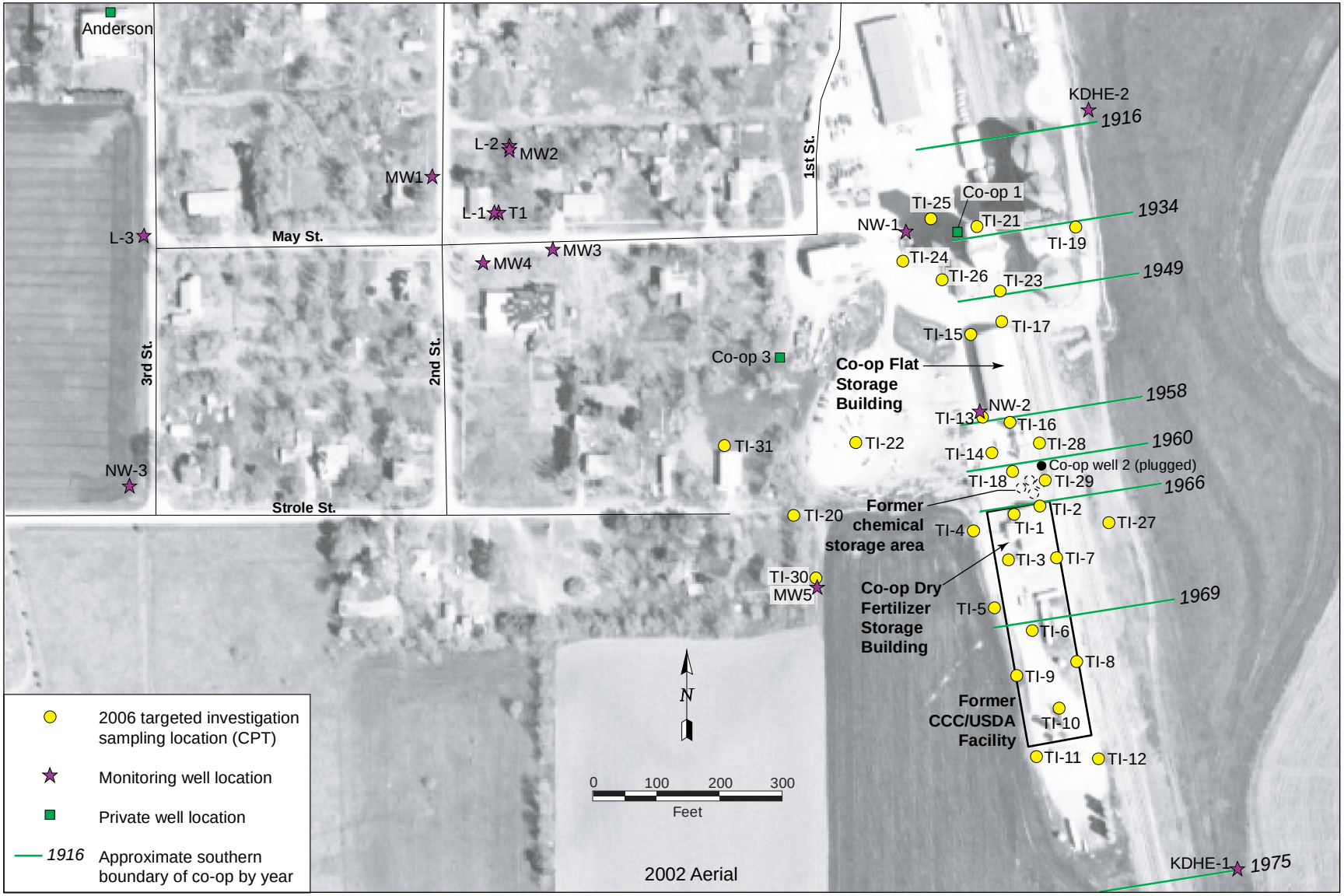


FIGURE 2.1 Investigated locations in the 2006 study at Navarre. Source of photograph: NAIP (2002).

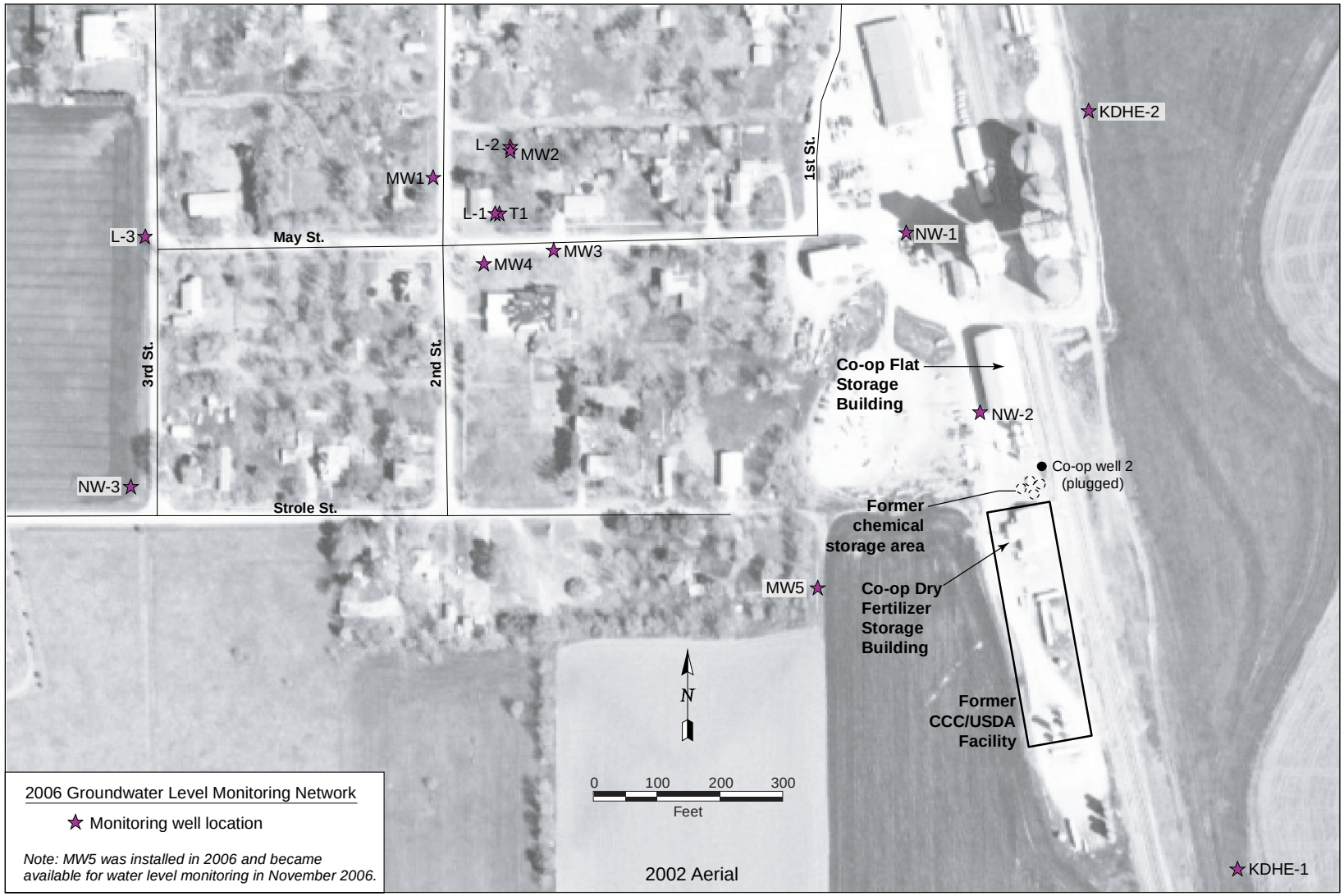


FIGURE 2.2 Groundwater level monitoring network. Source of photograph: NAIP (2002).

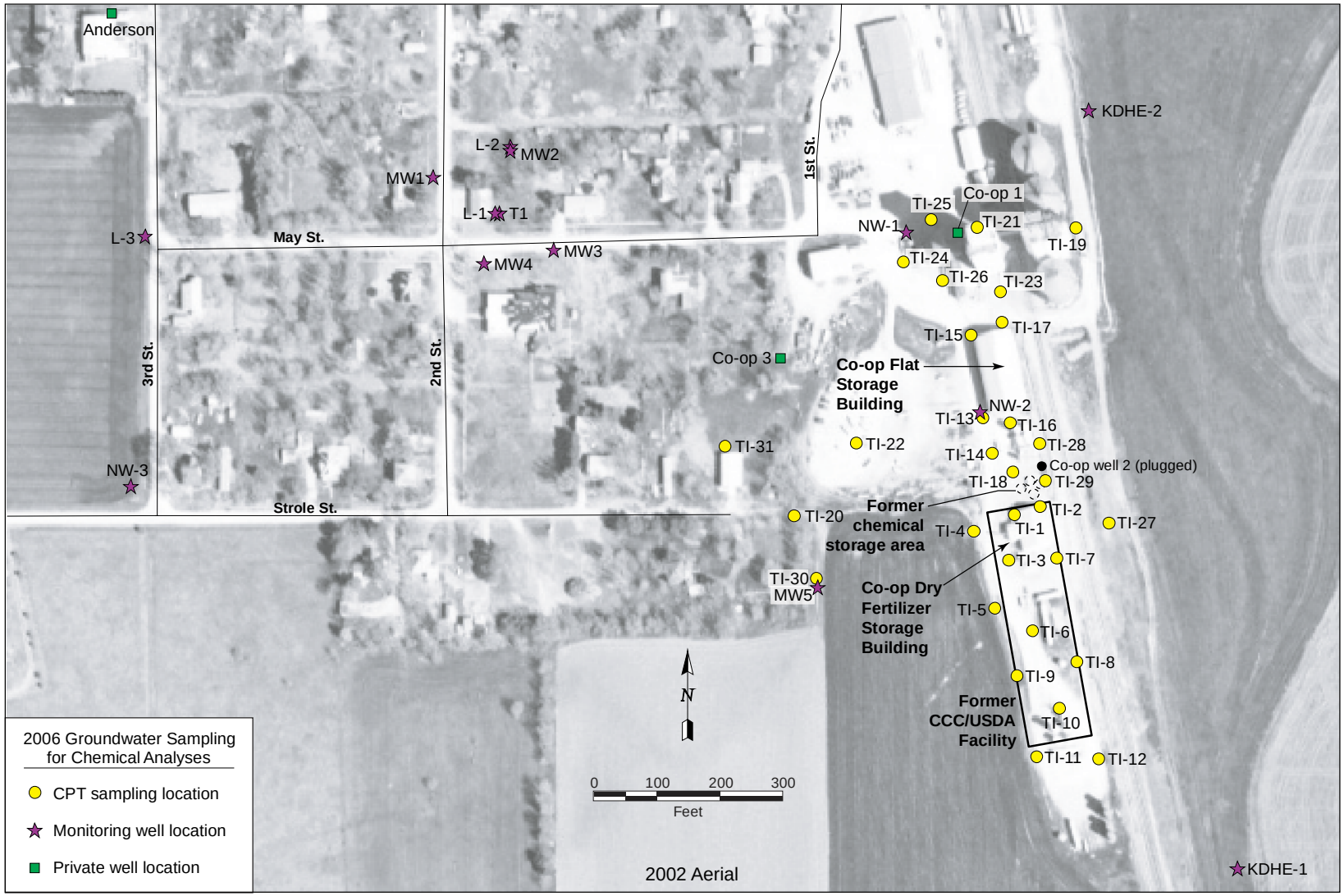


FIGURE 2.3 Groundwater sampling locations for chemical analyses. Source of photograph: NAIP (2002).

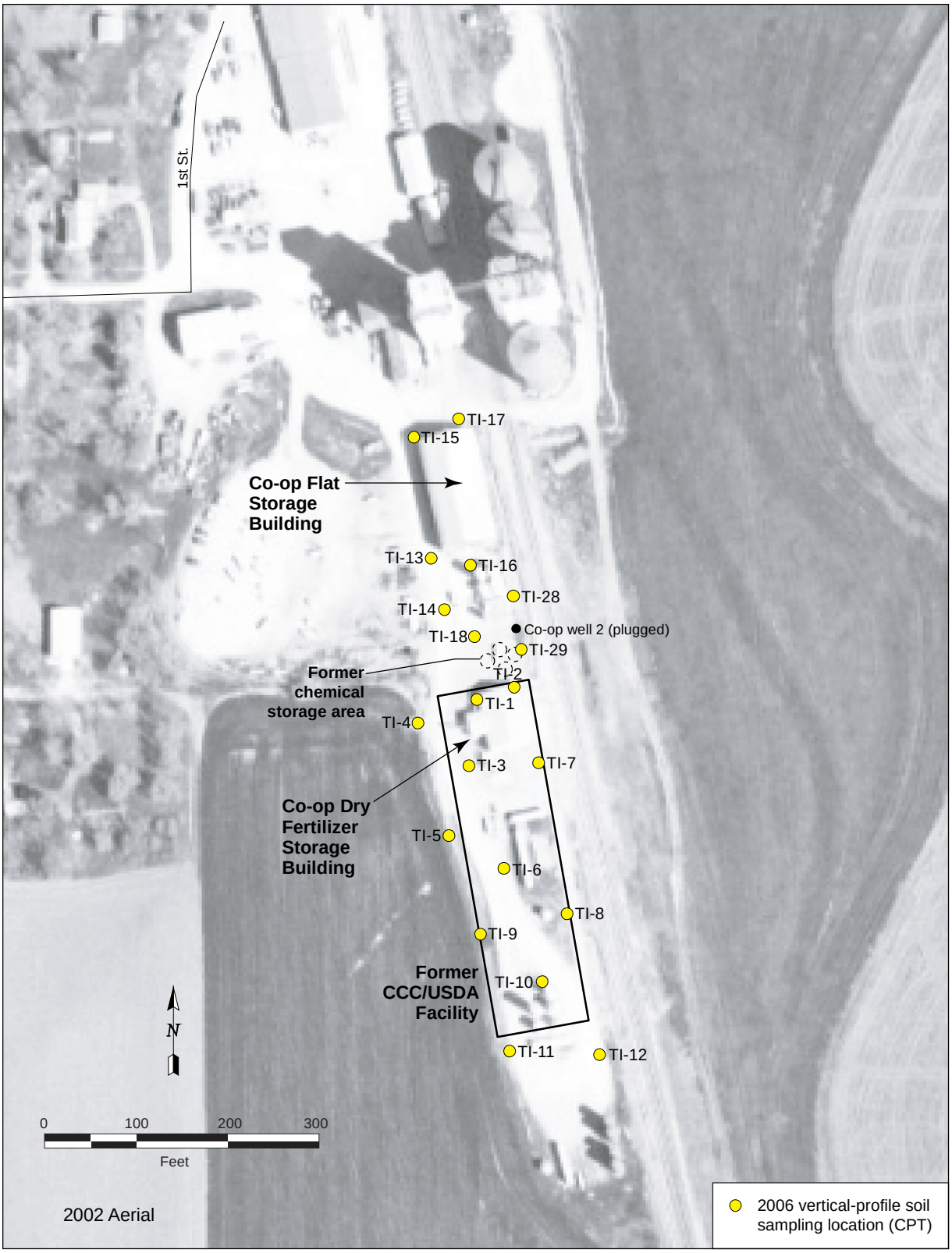


FIGURE 2.4 Vertical-profile soil sampling locations. Source of photograph: NAIP (2002).

3 Field and Laboratory Data

This section presents the field and laboratory data generated during the Navarre investigation. The methods and procedures followed in collecting the data are described in detail in Section 2 of this document and in the *Master Work Plan* (Argonne 2002). A detailed interpretation of the data is in Section 4 of this document.

3.1 Cone Penetrometer Sensor Data

The CPT was used in an attempt to collect tip, sleeve, and (in some instances) conductance electronic sensor data from 17 boreholes (Figure 3.1). Electronic logs from some locations provided only limited data because of the type of lithology encountered. The electronic logs are in Appendix A. The investigated locations were distributed as follows:

- Eleven locations on and near the former CCC/USDA property (TI-1, TI-2, TI-3, TI-5, TI-6, TI-7, TI-8, TI-9, TI-10, TI-11, and TI-12).

- Four locations on or near the specific areas of concern on the Co-op property (TI-13, TI-14, TI-23, and TI-28).

- Two locations downgradient from the specific areas of concern (TI-22 and TI-30).

Measurements of tip and sleeve stresses were used to identify target zones for groundwater sampling and to estimate depth to bedrock. Tip stress is a measure of the resistance of the soil on the tip of the cone during penetration, and sleeve stress is a measure of the drag created along the sidewall of the cone. The ratio of tip stress to sleeve stress, called the friction ratio, is a tool for evaluating subsurface lithology. Because conductance data indicate the presence of water, these data are used to identify optimal intervals for water sampling.

The electronic sensor data collected during the Navarre investigation were limited by the type of lithology encountered. Zones of discontinuous consolidated material were encountered at various depths. This material limited cone penetration in several boreholes. Data from 4 locations (TI-2, TI-3, TI-6, and TI-9) were collected to depths ranging from approximately 51 ft

to 72.5 ft BGL, and data from 7 locations (TI-1, TI-7, TI-8, TI-13, TI-22, TI-28, and TI-30) were collected to depths ranging from approximately 13.5 ft to 24 ft BGL. At 5 locations (TI-10, TI-11, TI-12, TI-14, and TI-23), pilot holes were used to obtain data at depths ranging from approximately 49.5 ft to 72 ft BGL.

The electronic sensor data did not indicate significant or distinct continuous zones of sand or gravel. This observation was supported by the soil cores collected from selected boreholes. Bedrock depths were determined by pushing Macro-Core® samplers until refusal was met. Depth to bedrock ranged from approximately 64 ft BGL in TI-3 to 88.5 ft BGL in TI-30. To ensure that refusal was indicative of bedrock, confirmatory soil cores were collected to total depth from some boreholes.

3.2 Piezometer Construction

The CPT was used to install a permanent piezometer (sand point well), MW5 (Figure 2.2), at the TI-30 location, in accordance with Kansas Article 30 regulations. Piezometer MW5 was installed flush to the ground, to a depth of 88 ft BGL. This location was chosen because of the depth achieved by the CPT. This is the deepest borehole completed during the 2006 investigation at Navarre. The construction diagram and the state well database registration for this piezometer are in Appendix B.

3.3 Coordinates Survey Data

The subsurface soil and groundwater sampling locations were surveyed by Schwab-Eaton, PA, of Manhattan, Kansas, to provide horizontal and vertical control for stratigraphic correlation and water level monitoring. Coordinates survey data are in Appendix C, Table C.1. A metal pin driven into the ground at each soil boring location was surveyed, and the top of the casing of each monitoring well was surveyed.

3.4 Analytical Data for Subsurface Soil Samples

A total of 382 subsurface soil samples were collected for VOCs analyses at 20 CPT locations throughout the investigation area. The results for carbon tetrachloride and chloroform

(maximum concentration at each location) are depicted in Figures 3.2 and 3.3. Results of all analyses for VOCs are in Supplement 1, Table S1.1. All supplements are on a compact disc (CD) inside the back cover of this report.

Discrete subsurface soil samples were collected from each borehole at approximately 4-ft intervals. The shallowest sample was collected at a depth of 2 ft BGL, and the deepest was at 70.7 ft BGL. The primary purpose was to investigate specific areas of concern for potential sources and migration pathways for carbon tetrachloride. Soil boring locations were chosen on the basis of analytical data from past investigations, as well as a review of areas where grain handling or chemical storage was thought to have occurred on the former CCC/USDA property or the Co-op property. Typically, grain- and chemical-handling activities are associated with doorways, equipment such as auger systems that transport grain from or to storage, and areas where maintenance or storage of equipment and chemicals occurred.

In addition to VOCs, selected soil samples from TI-2, TI-3, TI4, TI-6, TI-7, TI-12, TI-14, TI-16, and TI-29 were analyzed for particle size distribution and composition (Supplement 1, Table S1.2).

3.4.1 Carbon Tetrachloride and Chloroform in Soils on and near the Former CCC/USDA Property

On and near the former CCC/USDA property, 231 soil samples were collected from boreholes TI-1 through TI-12 (Figure 2.4). The samples were prepared and analyzed for VOCs by using U.S. Environmental Protection Agency (EPA) Methods 5030B and 8260B. The complete results of soil analyses for VOCs are in Supplement 1, Table S1.1. The results for these soil samples are summarized in Table 3.1 and in Figure 3.2 (carbon tetrachloride) and Figure 3.3 (chloroform). Table 3.1 and the other Section 3 data summary tables are grouped at the end of the section's text, before the figures.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 µg/kg in 20 soil samples from boreholes TI-1, TI-2, TI-3, TI-4, and TI-5. Trace levels (below the quantitation limit) were detected in 26 samples from TI-1, TI-2, TI-3, TI-4, TI-6, TI-7, and TI-9. All other soil samples collected at borehole locations on and near the southern boundary of the former CCC/USDA property, including all samples from boreholes TI-8, TI-10,

TI-11, and TI-12, showed no detectable concentration of carbon tetrachloride (Figure 3.2 and Table 3.1).

Chloroform was detected at or above the AGEM Laboratory detection limit of 1.0 µg/kg in soil samples from boreholes TI-1, TI-2, TI-3, TI-4, TI-10, and TI-12 (Figure 3.3 and Table 3.1). Chloroform concentrations at or above the AGEM Laboratory method quantitation limit of 10 µg/kg were detected in 4 samples from TI-1 and 1 sample from TI-10.

No 1,2-DCA was detected above the AGEM Laboratory method quantitation limit of 10 µg/kg in soil samples from any boreholes on or near the former CCC/USDA property.

The highest carbon tetrachloride concentrations on or adjacent to the former CCC/USDA property occurred in the soil samples collected at locations TI-1 and TI-2 (Figure 3.2 and Table 3.1). These boreholes are along the northern boundary of the former CCC/USDA property, near the Co-op's dry fertilizer storage building. Nine of the 24 samples at TI-1 (collected at 31-47 ft BGL) contained carbon tetrachloride above the AGEM method quantitation limit of 10 µg/kg, at concentrations ranging from 10 µg/kg at 47.5 ft BGL to 56 µg/kg at 31 ft BGL. At TI-2, 5 samples contained carbon tetrachloride at or above the AGEM method quantitation limit, at concentrations ranging from 12 µg/kg at 30 ft BGL to 65 µg/kg at 38 ft BGL. All of these concentrations are well below the Risk-Based Screening Level (RBSL) of 200 µg/kg for the soil-to-groundwater protection pathway.

Chloroform was detected above the method quantitation limit in 4 soil samples collected from borehole TI-1 (at concentrations ranging from 10 µg/kg to 12 µg/kg) and in 1 soil sample from borehole TI-10 (at 30 µg/kg; Figure 3.3). Trace levels of carbon tetrachloride and chloroform were found in additional samples from both boreholes (Table 3.1).

3.4.2 Carbon Tetrachloride and Chloroform in Soils on the Co-op Property

On the Co-op property, 151 soil samples were collected from boreholes TI-13 through TI-18, TI-28, and TI-29 (Figure 2.4). These locations were at or near the specific areas of concern. The samples were prepared and analyzed for VOCs by using EPA Methods 5030B and 8260B. The complete results of analyses for VOCs in soil samples are in Supplement 1,

Table S1.1. The results for the soil samples collected on the Co-op property are summarized in Table 3.2 and in Figure 3.2 (carbon tetrachloride) and Figure 3.3 (chloroform).

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 µg/kg in 51 soil samples from boreholes TI-13 through TI-18, TI-28, and TI-29 (Figure 3.2 and Table 3.2). Ten of the samples from TI-13, TI-14, TI-16, TI-18, and TI-28 contained carbon tetrachloride concentrations above the RBSL of 200 µg/kg. The concentrations above the RBSL ranged from 224 µg/kg to 1,094 µg/kg at depths of 22.5 ft to 42 ft BGL. Trace levels of carbon tetrachloride (below the method quantitation limit of 10 µg/kg) were detected in 18 samples from the boreholes on the Co-op property. These 18 samples were distributed as follows: 3 samples from each of boreholes TI-13, TI-16, and TI-28; 2 samples from each of boreholes TI-14, TI-27, TI-18, and TI-29; and 1 sample from borehole TI-15. The other 82 soil samples from these boreholes contained no detectable concentrations of carbon tetrachloride.

Chloroform was found at trace to low concentrations (up to 107 µg/kg) across the Co-op property, at TI-13 through TI-18, TI-28, and TI-29 (Figure 3.3). No 1,2-DCA was detected above the AGEM Laboratory method quantitation limit of 10 µg/kg in soil samples from any boreholes on the Co-op property.

The highest carbon tetrachloride concentration found in soil on the Co-op property (Table 3.2) occurred in a sample collected from the unsaturated zone at TI-28 (1,094 µg/kg at 22.5 ft BGL). Carbon tetrachloride was also detected above the method quantitation limit of 10 µg/kg in 5 additional samples from TI-28, at concentrations ranging from 18 µg/kg (20.5 ft BGL) to 613 µg/kg (25.2 ft BGL). Trace levels of carbon tetrachloride and chloroform also occurred at this location.

Soil samples from boring TI-16 on the Co-op property had the second highest levels of carbon tetrachloride (concentrations of 23-454 µg/kg, at depths of 28.8-45 ft BGL).

3.5 Groundwater Analytical Data

A total of 196 groundwater samples were collected during the field activities. Of these, 18 samples were from 13 existing monitoring wells and 3 private wells. Historical data regarding the permanent monitoring points are summarized in Table D.1, Appendix D. The remaining 178

groundwater samples were collected at 31 CPT investigation locations, at discrete depths between 15 ft and 88.5 ft BGL.

Groundwater sampling locations are shown in Figure 2.3. Sample descriptions are on CD in Supplement 2, Table S2.1. Results of field parameter measurements on the samples are in Table S2.2. Results for VOCs are in Table S2.3, and tritium values are in Table S2.4.

Samples were collected from wells to estimate the extent of carbon tetrachloride contamination in groundwater in the general investigation area. Groundwater profiling at CPT locations was conducted to identify source areas and migration pathways for the carbon tetrachloride contamination. Locations for groundwater sampling with the CPT were selected on the basis of analytical data from past investigations and a review of areas where grain handling or chemical storage was thought to have occurred on the former CCC/USDA property and the Co-op property. In addition, several groundwater samples were collected at CPT locations elsewhere in the general investigation area to evaluate the extent of the contamination.

3.5.1 Volatile Organic Compounds in Groundwater on and near the Former CCC/USDA Property

Fifty-seven groundwater samples were collected at boreholes TI-1 through TI-12 on and near the former CCC/USDA property (Figure 2.3), at depths from 25 ft to 77.8 ft BGL. All samples were analyzed for VOCs by using EPA Method 524.2. Complete results for VOCs are in Table S2.3 in Supplement 2. Table 3.3 summarizes the VOCs results for groundwater samples collected on and adjacent to the former CCC/USDA property. Figure 3.4 illustrates the maximum carbon tetrachloride concentration detected in groundwater at all locations. Figures 3.5 and 3.6 show chloroform and tetrachloroethene concentrations in groundwater, respectively.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 1.0 µg/L in 26 groundwater samples from locations TI-1 through TI-7 and TI-9 (Figure 3.4 and Table 3.3). In addition, trace levels of carbon tetrachloride (below the AGEM Laboratory method quantitation limit) were detected in 15 groundwater samples from locations TI-4 and TI-6 through TI-11. No carbon tetrachloride was detected in the 5 samples collected at location TI-12. Carbon tetrachloride levels at TI-1, TI-2, TI-3, TI-4, TI-5, and TI-7 exceeded the RBSL and maximum contaminant level (MCL) of 5.0 µg/L.

The highest carbon tetrachloride concentrations found in groundwater on and adjacent to the former CCC/USDA property occurred in samples collected at TI-1, TI-2, TI-3, and TI-4. Three samples collected at TI-1 contained concentrations of 127-181 µg/L at 30-55 ft BGL. Five samples from TI-2 contained concentrations of 2.2-77 µg/L at 25-70 ft BGL. Three samples from TI-3 contained concentrations of 7.6-72 µg/L at 32.2-56 ft BGL. Four samples from TI-4 contained quantifiable concentrations of 23-99 µg/L at 35-60 ft BGL, and a trace concentration was found in a fifth sample collected at 61-66 ft BGL.

Sample locations TI-1 and TI-2 are along the northern boundary of the former CCC/USDA property (Figure 3.4). Location TI-3 is on the southwest corner of the Co-op's dry fertilizer building. Location TI-4 is near the northwest corner of the former CCC/USDA property, in a low area that collects drainage from the Co-op property to the north, the former CCC/USDA property to the south, and an agricultural field to the southwest.

Chloroform was detected at or above the method quantitation limit of 1.0 µg/L in 23 groundwater samples from locations TI-1 through TI-7, as well as at trace levels in 5 samples from TI-5, TI-6, TI-7, and TI-11. All of the chloroform concentrations were below the RBSL and MCL of 80 µg/L for this compound (Figure 3.5 and Table 3.3).

All five groundwater samples from location TI-12, just south of the former CCC/USDA property, contained no detectable concentrations of carbon tetrachloride or chloroform. 1,2-Dichloroethane was not found in any groundwater sample collected on or near the former CCC/USDA property.

The only other VOCs detected on or near the former CCC/USDA property were methylene chloride, tetrachloroethene, benzene, and toluene. Methylene chloride was detected in samples collected at TI-1, TI-4, TI-10, and TI-11, at concentrations ranging from a trace (below the method quantitation limit of 1.0 µg/L) to 36 µg/L (Table 3.3). The MCL and RBSL for methylene chloride are both 5.0 µg/L. Tetrachloroethene was detected at trace levels in 2 samples from TI-1, 1 sample from TI-2, and 3 samples from TI-4 (Figure 3.6). These CPT locations are along or near the northern border between the former CCC/USDA and Co-op properties.

Benzene and toluene were detected in 4 samples from TI-10 and 1 sample from TI-11 (Table S2.3, Supplement 3). Both of these locations are adjacent to active aboveground storage tanks (ASTs) that are owned and operated by the Co-op.

3.5.2 Volatile Organic Compounds in Groundwater on the Co-op Property

On the Co-op property, 105 groundwater samples were collected at boreholes TI-13 through TI-19 and TI-21 through TI-29 (Figure 2.3). Sampling at these locations occurred at discrete depths between 15 ft and 77.2 ft BGL. Groundwater samples were also collected from 5 wells on the Co-op property: private wells Co-op 1 and Co-op 3 and existing monitoring wells KDHE-2, NW-1, and NW-2 (Figure 2.3). All samples were analyzed for VOCs by using EPA Method 524.2. Complete analytical results are in Supplement 2, Table S2.3. Table 3.4 summarizes the results of VOCs analyses on groundwater samples collected on the Co-op property. Figure 3.4 shows the maximum carbon tetrachloride concentration detected in groundwater at each location. Figures 3.5 and 3.6 show maximum chloroform and tetrachloroethene concentrations in groundwater, respectively.

Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 1.0 µg/L in the 4 groundwater samples from wells Co-op-1, Co-op-3, NW-1, and NW-2, as well as in 70 groundwater samples from boreholes TI-13 through TI-18 and TI-21 through TI-29 (Table 3.4 and Figure 3.4). Trace levels (below the method quantitation limit) were detected in 11 additional samples from boreholes TI-13, TI-16, TI-17, TI-19, TI-21, and TI-25. Carbon tetrachloride at or above the MCL (and the RBSL) of 5.0 µg/L was detected in the 2 samples from wells Co-op-3 and NW-2 and in 47 samples from boreholes TI-13 through TI-18, TI-22, TI-23, and TI-26 through TI-29.

Chloroform was detected at or above the AGEM Laboratory method quantitation limit of 1.0 µg/L in 63 samples from all CPT locations on the Co-op property, except for TI-19 and TI-21 (Table 3.4 and Figure 3.5). Trace concentrations of chloroform (below the quantitation limit) were found in 21 additional samples from well Co-op-1 and NW-1 and from boreholes TI-13, TI-16, TI-17, TI-18, TI-21, TI-23, TI-24, TI-25, TI-26, and TI-27. Chloroform at concentrations above the RBSL of 80 µg/L was detected in 13 samples from boreholes TI-13, TI-14, TI-16, TI-18, TI-28, and TI-29.

The highest maximum carbon tetrachloride concentrations in groundwater samples from the Co-op property occurred at locations TI-13, TI-14, TI-16, TI-18, TI-22, TI-28, and TI-29, most often at depths of approximately 40 ft BGL (except for TI-22, where the maximum concentration in groundwater occurred approximately 15 ft deeper). The highest concentrations of carbon tetrachloride in soil also occurred at TI-13, TI-14, TI-16, TI-18, TI-28, and TI-29. No soil samples were collected at TI-22. These correlations are shown in Figure 3.7.

The only other VOCs detected in groundwater samples collected on the Co-op property were tetrachloroethene and methylene chloride (Table 3.4 and Figure 3.6). Tetrachloroethene was detected at trace concentrations (below the method quantitation limit of 1.0 µg/L) in samples from 2 monitoring wells (Co-op 3 and NW-2). Tetrachloroethene was also detected at 6 CPT locations on the Co-op property (TI-13, TI-14, TI-16, TI-18, TI-22, and TI-28). Concentrations were at the trace level except at TI-28, where the highest concentration was 3.1 µg/L. Methylene chloride was detected in samples collected from the same two monitoring wells (Co-op 3 and NW-2) and 8 at CPT locations on the Co-op property (TI-13, TI-14, TI-16, TI-18, TI-22, TI-27, TI-28, and TI-29). The highest concentration (12.6 µg/L) was detected at TI-14. The MCL and RBSL values for tetrachloroethene and methylene chloride are 5.0 µg/L.

3.5.3 Volatile Organic Compounds in Groundwater in Areas Downgradient or Upgradient from the Target Areas

The CPT was used to collect 16 groundwater samples downgradient from the former CCC/USDA property and the Co-op property, at locations TI-20, TI-30/MW5, and TI-31. In addition, 14 groundwater samples were collected from 11 monitoring wells and 1 privately owned water well (Anderson) outside the former CCC/USDA property and the Co-op property. Table 3.5 summarizes the distribution of VOCs in these samples. The results provide additional information concerning the extent and concentrations of VOCs contamination in the groundwater plume in the general investigation area. Carbon tetrachloride concentrations at these locations are displayed in Figure 3.4, chloroform in Figure 3.5, and tetrachloroethene in Figure 3.6. Methylene chloride was not detected in any of the downgradient or upgradient samples.

Groundwater samples from the 3 CPT boreholes downgradient from (west of) the Co-op and CCC/USDA properties contained carbon tetrachloride at levels above the AGEM Laboratory method quantitation limit of 1.0 µg/L. The highest contaminant levels were in boreholes TI-30 and TI-31, with concentrations in 2 samples from TI-30 and 3 samples from TI-31 exceeding the

RBSL of 5 μg/L for carbon tetrachloride. In addition, 3 samples from TI-20 exceeded the RBSL of 5 μg/L for carbon tetrachloride, though the concentrations were lower.

The downgradient private well (Anderson) and 10 monitoring wells (T1, MW1, MW2, MW3, MW4, MW5, NW-3, L-1, L-2, and L-3) discussed here are located downgradient (west) of the Co-op property and northwest of the former CCC/USDA property; the upgradient monitoring well (KDHE-1) is southeast of the former CCC/USDA property (Figure 2.3).

Carbon tetrachloride was detected at concentrations above the RBSL of 5.0 μg/L in 7 of the off-site monitoring wells (T1, MW1, MW2, MW3, MW4, NW-3, and L-1) and in the private well. The other four monitoring wells (MW5, KDHE-1, L-2, and L-3) exhibited trace to nondetectable levels of carbon tetrachloride (Figure 3.4) and no detectable chloroform (Figure 3.5).

3.6 Groundwater Gradient Data

The direction of groundwater flow in the general investigation area was historically interpreted to be toward the northwest. The groundwater flow direction and contaminant migration (both currently and in the past) may be influenced, however, by the use of private wells to the west and northwest of the former CCC/USDA property and the Co-op property.

During the 2006 investigation, groundwater levels in monitoring wells and piezometers were initially measured by hand on April 24-25, 2006. Manual measurements were also made on May 11, 2006, November 3, 2006 (partial set), and November 28, 2006. The levels were measured (with an electronic meter) to the nearest 0.01 ft from a surveyed reference point (the top of the casing in each well). Results are in Supplement 3, Table S3.1.

In April and May 2006, Argonne placed downhole pressure sensors with automatic data loggers in monitoring wells KDHE-1, KDHE-2, T1, MW1, MW2, MW3, MW4, NW-1, NW-2, NW-3, L-1, L-2, and L-3. The loggers record water levels at 4-hr intervals. The complete set of water levels recorded by the data loggers in April to November 2006 is in Supplement 3, Table S3.2.

The data show that the hydraulic gradient did not vary significantly over the period of record, and indicate a predominant direction of groundwater flow toward the west-northwest. The addition of a (hand measured) groundwater depth measurement from MW5 for the first time on November 28, 2006, resulted in a reduced hydraulic gradient and an apparent flow direction that is slightly more toward the northwest in the area directly west of the former CCC/USDA property. The overall results are consistent with the previously determined northwesterly flow direction. Hydrographs developed from the data logger records indicate periodic drawdown of the water levels at well L-3 and in several additional monitoring wells. The cause of this drawdown is unknown. A discussion of the hydrogeology, along with groundwater flow maps and hydrographs, is in Section 4.1.2.

3.7 Results of Quality Control Activities

The QA/QC procedures for sample collection, handling, and analysis during the Navarre investigation are described in detail in the *Master Work Plan* (Argonne 2002) and the site-specific work plan (Argonne 2006). A detailed QA/QC report addressing activities related to sample collection, handling, and analysis during the investigation is in Supplement 4 (on CD).

Results of QA/QC activities are summarized as follows:

- Sample integrity was maintained successfully throughout the collection, shipping, and analysis activities by documentation of samples as they were collected and the use of custody seals and chain-of-custody records. Chain-of-custody records are in Supplement 5 (on CD).

- All samples were received with custody seals intact and at appropriate preservation conditions. With the exception of one trip blank that was broken during shipment, all samples were analyzed within required holding times. Carbon tetrachloride and chloroform were not detected in laboratory method blanks. Methylene chloride was present at trace concentrations in the methanol used for extraction of the soil samples. Detection of methylene chloride at similar concentrations in the soil samples is not reported.

- As an indicator of cross-contamination of samples during shipment, 58 trip blanks were prepared and packed with soil or water samples shipped for organic analysis. Analytical results indicate that, overall, sample handling procedures were followed during the 2006 investigation; however, one trip blank broke during shipment. Because the trip blank was broken and not analyzed, three groundwater samples from location TI-27 with low levels of carbon tetrachloride reported (1.1-7.9 μg/L) are qualified to reflect the potential for cross-contamination during shipment.

- One field blank was collected to represent water used during equipment decontamination. Carbon tetrachloride and chloroform, the contaminants of primary concern in the investigation, were not detected in the field blank.

- To monitor decontamination procedures for reusable sampling equipment, 28 equipment rinsates were collected. Neither carbon tetrachloride nor chloroform was detected in the rinsate samples at concentrations above the method quantitation limit, indicating that cross-contamination of groundwater samples did not occur during sample collection. Trace concentrations of carbon tetrachloride (0.1-0.8 μg/L) were detected in three rinsate samples collected from the decontaminated sampling equipment following collection of groundwater samples with high levels (118-260 μg/L) of the contaminant present. These trace-level detections indicate that the decontamination procedures during the 2006 field investigation were good.

- One groundwater sample was rejected as non-representative of site conditions and was re-collected. During initial sampling at location TI-20 from a depth interval of 42-47 ft BGL, very limited water was available for collection. After an overnight wait, sufficient water was available to collect the needed aliquots. The initial sample was rejected and is not included in the investigation data generated.

- Soil and groundwater samples were analyzed for VOCs at the AGEM Laboratory by using the purge-and-trap method. Dual analyses of samples were conducted as a measure of consistency in the sampling and analytical methodologies. The dual analyses were accomplished through analysis of

replicate samples submitted to the laboratory or duplicate analyses of samples selected by the laboratory. Consistency in both the sampling and analytical methodologies is indicated by the average relative percent difference (RPD) values of 14.3% for carbon tetrachloride, 11.3% for chloroform, and 17.9% for methylene chloride in the dual analyses with the contaminants present. The data from the AGEM Laboratory are acceptable for quantitative determination of contaminant distribution.

- The analyses of water samples at the AGEM Laboratory by EPA Method 524.2 were verified at a second laboratory using EPA-defined Contract Laboratory Program (CLP) methodology. Of the 196 groundwater samples analyzed at the AGEM Laboratory, 21 samples (10.7%) were also analyzed according to CLP methodology by Envirosystems, Inc., in Columbia, Maryland. Agreement was good over the range of contaminant concentrations detected. Samples analyzed at the AGEM Laboratory with no detection of contamination were analyzed by the CLP laboratory with similar results. Because of the higher quantitation limit for the CLP analysis of 5.0 µg/L, very low concentrations detected by purge-and-trap analysis were sometimes not detected by the CLP analysis. For samples with contaminant concentrations above the purge-and-trap quantitation limit of 1.0 µg/L, the average RPD values between the two laboratories were 20.5% for carbon tetrachloride and 16.3% for chloroform. Significant concentrations of methylene chloride (indicative of biodegradation of carbon tetrachloride to chloroform and then to methylene chloride) were confirmed by the CLP analysis. The Envirosystems data are in Supplement 5 (on CD).

- The analyses of soil samples at the AGEM Laboratory with EPA Method 8260B were verified at a second laboratory using the same analytical method. Of the 382 vertical-profile soil samples analyzed at the AGEM Laboratory, 34 samples (8.9%) were also analyzed by Severn-Trent Laboratories, Inc., in Colchester, Vermont. Agreement was good over the range of contaminant concentrations detected. Soil samples analyzed at the AGEM Laboratory with no detection of contamination were analyzed by Severn-Trent with similar results. For samples in which contamination was detected, the average RPD

values between the two laboratories were 56.2% for carbon tetrachloride 28.3% for chloroform. The Severn-Trent data are in Supplement 5 (on CD).

- For the tritium analyses of groundwater samples at the University of Miami Tritium Laboratory in Miami, Florida, the instrument was calibrated with a standard, and dual analyses of samples gave comparable results. The data are acceptable for age dating of groundwaters.

- Soil samples selected for particle size analysis at the HWS Laboratory in Lincoln, Nebraska, were analyzed in accordance with ASTM D422-63 (2002), "Standard Test Method for Particle-Size Analysis of Soils" (ASTM International, http://www.astm.org). The distribution of particle sizes larger than 75 µm was determined by sieving, while the distribution of smaller particle sizes was determined by a sedimentation process using a hydrometer. The data are suitable for use in evaluation of site lithology.

3.8 Waste Characterization, Handling, and Disposal

Wastewater generated by field activities was stored in polyurethane containers and aerated. Neither carbon tetrachloride nor chloroform was not detected above the method detection limit of 1.0 µg/L (Supplement 6 [on CD]). The water was discharged on-site, with the approval of the KDHE.

3.9 Property Documentation

Property documentation for the grain storage areas at Navarre is in Supplement 7 (on CD).

3.10 Summary of Analytical Data

The data collected during this investigation address the objectives detailed in the KDHE-approved site-specific work plan (Argonne 2006). Key results of the investigation are summarized below.

3.10.1 Former CCC/USDA Property

3.10.1.1 Soil Data for the Former CCC/USDA Property

- Carbon tetrachloride was detected — at or above the AGEM Laboratory method quantitation limit of 10 µg/kg — in 20 of the 231 soil samples collected (at 5 of the 12 locations sampled) on or near the former CCC/USDA property. The highest carbon tetrachloride concentrations in these soil samples occurred at location TI-1 (56 µg/kg at 31 ft BGL, just above the saturated zone), along the northern border between the former CCC/USDA property and the Co-op property. Other soil samples that contained carbon tetrachloride above the method quantitation limit were at depths just above or within the saturated zone. The only exception was at TI-4, where groundwater was encountered at about 35 ft BGL, and carbon tetrachloride was detected in soil samples from depths of 20.5 ft BGL and 25.0 ft BGL.

- Contaminant levels in all of the soil samples collected on or near the former CCC/USDA property were *below* the RBSL values for the soil-to-groundwater protection pathway of 200 µg/kg for carbon tetrachloride and 960 µg/kg for chloroform.

3.10.1.2 Groundwater Data for the Former CCC/USDA Property

- Carbon tetrachloride was detected at or above the RBSL of 5.0 µg/L in 16 of the 57 groundwater samples collected (at 6 of 12 locations sampled) on or near the former CCC/USDA property. The highest concentration (181 µg/L at 30-35 ft BGL) was detected at location TI-1.

- Chloroform was detected at or above the method quantitation limit of 1.0 µg/L in 23 groundwater samples from locations TI-1 through TI-7; however, all of the chloroform concentrations were below the RBSL of 80 µg/L for this compound.

- Tetrachloroethene was detected at trace levels in groundwater samples collected at TI-1, TI-2, and TI-4. None of the samples exceeded the RBSL of 5.0 µg/L for this compound in groundwater.

- Methylene chloride was detected at concentrations above the RBSL of 5.0 µg/L in 7 groundwater samples from locations TI-1, TI-4, TI-10, and TI-11. The highest concentration, 36 µg/L, occurred in the sample collected at 40-45 ft BGL at location TI-10.

- Benzene was detected above the RBSL of 5 µg/L in 3 groundwater samples collected at locations TI-10 and TI-11. The highest concentration, 41 µg/L, occurred in the sample collected at 33-38 ft BGL at location TI-11. Benzene is often found near petroleum storage facilities. The Co-op has active ASTs near TI-10 and TI-11. This location exhibited high concentrations of several VOCs that are typically associated with petroleum products.

- Toluene was detected in 4 groundwater samples from TI-10 and TI-11. The highest concentration was 27 µg/L in the sample collected at 40-45 ft BGL from TI-10. None of the samples had concentrations exceeding the RBSL. Toluene is often found near petroleum storage facilities. The Co-op has active ASTs near TI-10 and TI-11.

3.10.2 Co-op Property

3.10.2.1 Soil Data for the Co-op Property

- Carbon tetrachloride was detected at or above the AGEM Laboratory method quantitation limit of 10 µg/kg in 51 of the 151 soil samples collected at all 8 locations investigated on the Co-op property. The maximum concentration was 1,094 µg/kg at 22.5 ft BGL at location TI-28.

- Carbon tetrachloride was detected above the RBSL of 200 µg/kg in 10 of the 151 soil samples collected on the Co-op property (in 5 of the 8 locations investigated). The highest concentrations were detected near the south door of

the flat storage building, the former well Co-op 2, and the former chemical storage area.

- Chloroform was found in soil at trace to low concentrations across the Co-op property, at all 8 locations investigated. None of the concentrations exceeded the RBSL value of 960 µg/kg for the soil-to-groundwater protection pathway.

3.10.2.2 Groundwater Data for the Co-op Property

- Carbon tetrachloride was detected at or above the RBSL of 5.0 µg/L in 47 of the 105 groundwater samples collected with the CPT on the Co-op property (at 12 of 16 locations investigated) and in 2 of the 5 wells sampled on the Co-op property (197 µg/L in well Co-op 3 and 313 µg/L in well NW-2). The highest concentrations in groundwater occurred near the south door of the flat storage building, the former well Co-op 2, and the former chemical storage area.

- Chloroform was detected above the RBSL of 80 µg/L in 13 groundwater samples from boreholes TI-13, TI-14, TI-16, TI-18, TI-28, and TI-29. (There is no MCL for chloroform.) The highest concentrations occurred in samples collected near the south door of the flat storage building, former well Co-op 2, and the former chemical storage area: 535 µg/L at TI-16 (25-37 ft BGL) and 646 µg/L at TI-28 (32-37 ft BGL).

- Tetrachloroethene was detected at trace to low levels in samples collected from wells Co-op 3 and NW-2, as well as at CPT locations TI-13, TI-14, TI-16, TI-18, TI-22, and TI-28. None of the concentrations exceeded the RBSL of 5.0 µg/L for groundwater. The highest concentration was detected at TI-28 (3.1 µg/L at 32-37 ft BGL), which is near the former well Co-op 2 and the former chemical storage area.

- Methylene chloride was detected above the RBSL of 5.0 µg/L in 6 groundwater samples from TI-14, TI-16, TI-18, and TI-28 on the Co-op property. The highest concentration was 12.6 µg/L in the sample collected at

67.4-72.4 ft BGL at location TI-14, which is near the former chemical storage area.

TABLE 3.1 Summary of organic analytical results for soil samples collected at the former CCC/USDA facility during the 2006 investigation at Navarre, Kansas.

				Concentration (µg/kg)		
Location	Sample Date	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	Methylene Chloride
TI-1	4/7/06	2.0–9.0	4	ND[a]	ND	ND
TI-1	4/7/06	18.0	1	ND	1.0 J[b]	ND
TI-1	4/8/06–4/11/06	19.2–20.5	2	ND	ND	ND
TI-1	4/11/06	21.5	1	0.9 J	ND	ND
TI-1	4/11/06	23.8	1	1.3 J	ND	ND
TI-1	4/8/06	31.0	1	56	3.7 J	ND
TI-1	4/13/06	32.0	1	23	1.6 J	ND
TI-1	4/13/06	32.7	1	35	12	ND
TI-1	4/13/06	34.5	1	3.0 J	11	ND
TI-1	4/13/06	36.0	1	48	10	ND
TI-1	4/13/06	38.5	1	37	3.8 J	ND
TI-1	4/13/06	39.5	1	41	3.5 J	ND
TI-1	4/13/06	42.5	1	44	10	ND
TI-1	4/13/06	44.0	1	3.3 J	2.6 J	ND
TI-1	4/13/06	46.5	1	15	4.1 J	ND
TI-1	4/13/06	47.5	1	10	2.3 J	ND
TI-1	4/13/06	51.0	1	1.4 J	ND	ND
TI-1	4/13/06	55.0	1	1.8 J	ND	ND
TI-1	4/13/06	58.5	1	3.2 J	2.2 J	ND
TI-1	4/13/06	59.5	1	ND	ND	ND
TI-2	4/5/06–4/6/06	2.0–24.5	8	ND	ND	ND
TI-2	4/6/06	28.7	1	7.0 J	1.5 J	ND
TI-2	4/6/06	30.0	1	12	6.8 J	ND
TI-2	4/6/06	32.0	1	ND	2.2 J	ND
TI-2	4/6/06	34.0	1	13	6.1 J	ND
TI-2	4/6/06	38.0	1	65	3.9 J	ND
TI-2	4/6/06	40.0	1	15	4.4 J	ND
TI-2	4/6/06	42.0	1	2.7 J	ND	ND
TI-2	4/6/06	46.0	1	0.9 J	1.9 J	ND
TI-2	4/6/06	50.0	1	7.3 J	1.3 J	ND
TI-2	4/6/06	52.0	1	4.9 J	3 J	ND
TI-2	4/6/06	54.0	1	30	5.1 J	ND
TI-2	4/6/06	58.0–70.7	4	ND	ND	ND
TI-3	4/4/06	6.0–10.0	2	ND	ND	ND
TI-3	4/6/06	22.0	1	ND	1.0 J	ND
TI-3	4/5/06–4/7/06	24.5–32.0	3	ND	ND	ND
TI-3	4/6/06	36.0	1	2.7 J	1.6 J	ND
TI-3	4/6/06	37.0	1	ND	1.1 J	ND
TI-3	4/6/06	40.0	1	1.4 J	1.3 J	ND
TI-3	4/6/06	44.0	1	1.6 J	ND	ND
TI-3	4/6/06	48.0	1	2.6 J	1.2 J	ND
TI-3	4/13/06	49.2	1	ND	1.9 J	ND
TI-3	4/13/06	52.8	1	21	ND	ND
TI-3	4/13/06	56.5	1	1.3 J	ND	ND
TI-3	4/13/06	60.0–62.0	2	ND	ND	ND

TABLE 3.1 (Cont.)

Location	Sample Date	Depth (ft BGL)	Number of Samples	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride
TI-4	4/8/06	2.0–17.7	5	ND	ND	ND
TI-4	4/8/06	20.5	1	10	ND	ND
TI-4	4/9/06	25.0	1	29	1.3 J	ND
TI-4	4/9/06	29.2	1	6.0 J	1.5 J	ND
TI-4	4/9/06	31.0	1	4.0 J	ND	ND
TI-4	4/9/06	34.0	1	1.0 J	ND	ND
TI-4	4/9/06	37.0	1	32	8.3 J	ND
TI-4	4/9/06	45.5	1	3.1 J	ND	ND
TI-4	4/9/06	50.0	1	20	1.8 J	ND
TI-4	4/9/06	54.0	1	ND	ND	ND
TI-4	4/9/06	58.0	1	7.3 J	0.9 J	ND
TI-4	4/9/06	61.0	1	ND	ND	ND
TI-5	4/10/06–4/11/06	2.0–52.0	14	ND	ND	ND
TI-5	4/11/06	53.0	1	15	ND	ND
TI-5	4/12/06	61.0	1	ND	ND	ND
TI-6	4/20/06	2.0–46.0	12	ND	ND	ND
TI-6	4/20/06	50.0	1	1.3 J	ND	ND
TI-6	4/21/06	53.4–61.0	2	ND	ND	ND
TI-7	4/9/06	2.0–29.0	14	ND	ND	ND
TI-7	4/9/06	30.0	1	1.5 J	ND	ND
TI-7	4/9/06	36.5–43.0	4	ND	ND	ND
TI-7	4/9/06	46.0	1	7.0 J	ND	ND
TI-7	4/10/06	52.5–69.0	4	ND	ND	ND
TI-8	4/26/06–4/27/06	2.0–59.7	17	ND	ND	ND
TI-9	4/22/06–4/23/06	4.0–45.0	15	ND	ND	ND
TI-9	4/23/06	50.0	1	2.7 J	ND	ND
TI-9	4/23/06	53.0–69.0	5	ND	ND	ND
TI-10	4/25/06	4.5–13.5	5	ND	ND	ND
TI-10	4/25/06	17.0	1	ND	2.0 J	ND
TI-10	4/25/06	19.5	1	ND	8.0 J	ND
TI-10	4/25/06	20.8	1	ND	30	112
TI-10	4/26/06	25.5	1	ND	1.2 J	ND
TI-10	4/26/06	29.5–65.5	11	ND	ND	ND
TI-11	4/22/06–4/25/06	2.0–60.5	17	ND	ND	ND
TI-12	5/3/06	1.0–53.5	19	ND	ND	ND
TI-12	5/3/06	56.5	1	ND	1.0 J	ND
TI-12	5/3/06	60.0–61.5	2	ND	ND	ND

[a] ND, not detected at a method detection limit of 1.0 µg/kg.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10.0 µg/kg.

TABLE 3.2 Summary of organic analytical results for soil samples collected on the Co-op property during the 2006 investigation at Navarre, Kansas.

				Concentration (µg/kg)		
Location	Sample Date	Depth (ft BGL)	Number of Samples	Carbon Tetra-chloride	Chloro-form	Methylene Chloride
TI-13	5/2/06–5/3/06	2.0–19.1	9	ND[a]	ND	ND
TI-13	5/4/06	22.8	1	ND	1.6 J[b]	ND
TI-13	5/3/06	27.0	1	176	33	ND
TI-13	5/3/06	28.0	1	224	34	ND
TI-13	5/4/06	30.5	1	37	14	ND
TI-13	5/3/06	34.5	1	22	6.3 J	ND
TI-13	5/3/06	36.0	1	16	5.1 J	ND
TI-13	5/3/06	38.0	1	45	29	ND
TI-13	5/3/06	40.0	1	18	8 J	ND
TI-13	5/3/06	42.9	1	30	5.6 J	ND
TI-13	5/3/06	47.0	1	11	3 J	ND
TI-13	5/3/06	50.0	1	20	2.4 J	ND
TI-13	5/3/06	51.5	1	3.1 J	1.8 J	ND
TI-13	5/3/06	54.8	1	3.5 J	ND	ND
TI-13	5/3/06	58.9	1	1.9 J	1.2 J	ND
TI-14	5/5/06	2.0–26.8	12	ND	ND	ND
TI-14	5/5/06	29.0	1	19	3.7 J	ND
TI-14	5/5/06	32.8	1	73	2.1 J	ND
TI-14	5/5/06	35.2	1	364	16	ND
TI-14	5/5/06	38.0	1	194	15	ND
TI-14	5/5/06	40.5	1	306	25	ND
TI-14	5/5/06	44.5	1	114	2.3 J	ND
TI-14	5/5/06	46.2	1	160	2.6 J	ND
TI-14	5/5/06	49.0	1	66	5.5 J	ND
TI-14	5/6/06	52.8	1	2.6 J	1.8 J	ND
TI-14	5/6/06	56.8	1	6.6 J	3.6 J	ND
TI-14	5/6/06	57.8	1	50	4.0 J	ND
TI-14	5/6/06	61.2	1	ND	ND	ND
TI-15	5/5/06	1.0–24.6	9	ND	ND	ND
TI-15	5/5/06	26.1	1	93	2.5 J	ND
TI-15	5/5/06	29.0	1	27	ND	ND
TI-15	5/5/06	33.5	1	23	ND	ND
TI-15	5/5/06	34.6	1	13	ND	ND
TI-15	5/5/06	37.5	1	13	3.5 J	ND
TI-15	5/5/06	41.5	1	91	4.7 J	ND
TI-15	5/5/06	45.0	1	3.3 J	ND	ND
TI-15	5/6/06	51.9–60.8	4	ND	ND	ND
TI-16	5/7/06	1.5	1	ND	ND	ND
TI-16	5/7/06	3.5	1	3.3 J	ND	ND
TI-16	5/7/06	6.0–25.0	9	ND	ND	ND
TI-16	5/7/06	28.8	1	272	107	ND
TI-16	5/7/06	32.9	1	92	33	ND
TI-16	5/7/06	36.5	1	36	9.0 J	ND
TI-16	5/7/06	37.5	1	35	8.6 J	ND
TI-16	5/7/06	42.0	1	454	34	ND
TI-16	5/7/06	45.0	1	23	8.8 J	ND
TI-16	5/7/06	49.8	1	3.1 J	ND	ND
TI-16	5/7/06	53.0	1	3.8 J	1.7 J	ND

TABLE 3.2 (Cont.)

Location	Sample Date	Depth (ft BGL)	Number of Samples	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride
TI-17	5/7/06	2.2–21.0	7	ND	ND	ND
TI-17	5/7/06	24.8	1	2.6 J	ND	ND
TI-17	5/7/06	26.2	1	15	1.5 J	ND
TI-17	5/7/06	28.5	1	31	ND	ND
TI-17	5/7/06	33.0	1	ND	7.9 J	ND
TI-17	5/7/06	37.5	1	ND	ND	ND
TI-17	5/7/06	42.0	1	10	ND	ND
TI-17	5/7/06	45.5–49.2	2	ND	ND	ND
TI-17	5/7/06	52.9	1	2.1 J	ND	ND
TI-17	5/7/06	56.5	1	ND	ND	ND
TI-18	5/18/06	5.0–20.8	5	ND	ND	ND
TI-18	5/19/06	29.0	1	10	ND	ND
TI-18	5/19/06	33.5	1	56	ND	ND
TI-18	5/19/06	37.0	1	109	ND	ND
TI-18	5/19/06	41.0	1	400	9.2 J	ND
TI-18	5/21/06	45.0	1	46	ND	ND
TI-18	5/21/06	53.0	1	4.0 J	2.0 J	ND
TI-18	5/21/06	57.0	1	ND	1.4 J	ND
TI-18	5/21/06	61.0	1	2.9 J	1.5 J	ND
TI-28	5/18/06–5/19/06	6.0–17.0	5	ND	ND	ND
TI-28	5/18/06	20.5	1	18	1.7 J	ND
TI-28	5/18/06	22.5	1	1094	4.4 J	ND
TI-28	5/18/06	25.2	1	613	ND	ND
TI-28	5/18/06	28.5	1	433	ND	ND
TI-28	5/18/06	32.8	1	287	ND	ND
TI-28	5/18/06	37.0	1	110	ND	ND
TI-28	5/18/06	41.0	1	8.7 J	ND	ND
TI-28	5/18/06	42.5	1	5.2 J	1.9 J	ND
TI-28	5/18/06	45.0	1	2.8 J	ND	ND
TI-28	5/19/06	49.0–61.8	4	ND	ND	ND
TI-29	5/19/06–5/21/06	6.0–15.5	5	ND	ND	ND
TI-29	5/19/06	16.5	1	ND	0.7 J	ND
TI-29	5/19/06	24.5	1	91	ND	ND
TI-29	5/19/06	26.5	1	17	10	ND
TI-29	5/19/06	29.4	1	9.4 J	7.8 J	ND
TI-29	5/19/06	34.0	1	49	16	ND
TI-29	5/19/06	38.0	1	135	8 J	ND
TI-29	5/19/06	42.0	1	106	5.2 J	ND
TI-29	5/19/06	45.5	1	ND	ND	ND
TI-29	5/19/06	49.5	1	43	5.9 J	ND
TI-29	5/19/06	53.0	1	6.0 J	1.9 J	ND
TI-29	5/21/06	57.0–62.0	2	ND	ND	ND

[a] ND, not detected at a method detection limit of 1.0 µg/kg.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10.0 µg/kg.

TABLE 3.3 Summary of results of organic analyses of vertical-profile groundwater samples collected with the cone penetrometer at the former CCC/USDA facility during the 2006 investigation at Navarre, Kansas.

				Concentration (µg/L)			
Location	Depth (ft below TOC)	Number of Samples	Sample Date	Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene
TI-1	30–35	1	4/13/06	181	60	10	0.2 J[a]
TI-1	38–43	1	4/13/06	177	64	10	0.2 J
TI-1	50–55	1	4/13/06	127	56	8.2	ND[b]
TI-1	67–71	1	4/14/06	ND	ND	ND	ND
TI-2	25–30	1	4/21/06	2.2	2.0	ND	ND
TI-2	31–36	1	4/21/06	8.7	7.8	ND	ND
TI-2	37–42	1	4/21/06	77	9.2	ND	< 0.1
TI-2	49–54	1	4/21/06	9.8	2.7	ND	ND
TI-2	66–70	1	4/21/06	14	2.8	ND	ND
TI-2	69–72	1	4/7/06	ND	ND	ND	ND
TI-3	32.2–37.2	1	4/7/06	27	7.9	ND	ND
TI-3	43–48	1	4/14/06	72	12	ND	ND
TI-3	51–56	1	4/14/06	7.6	1.6	ND	ND
TI-4	35–40	1	4/10/06	76	55	3.6	0.2 J
TI-4	42–47	1	4/14/06	99	75	6.1	ND
TI-4	50–55	1	4/11/06	40	58	0.8 J	0.2 J
TI-4	55–60	1	4/11/06	23	7.0	ND	< 0.1
TI-4	61–66	1	4/12/06	0.6 J	3.6	ND	ND
TI-4	67–71	1	4/12/06	ND	ND	ND	ND
TI-5	28–33	1	4/13/06	1.1	1.2	ND	ND
TI-5	36–41	1	4/12/06	1.1	2.0	ND	ND
TI-5	49–54	1	4/13/06	6.3	0.4 J	ND	ND
TI-5	72.8–77.8	1	4/20/06	ND	ND	ND	ND
TI-6	38–43	1	4/22/06	1.3	1.0	ND	ND
TI-6	49–54	1	4/21/06	0.4 J	ND	ND	ND
TI-6	58–63	1	4/22/06	1.5	0.1 J	ND	ND
TI-6	68–73	1	4/22/06	ND	ND	ND	ND
TI-7	29.5–34.5	1	4/20/06	3.8	1.7	ND	ND
TI-7	37–42	1	4/20/06	3.8	1.9	ND	ND
TI-7	45–50	1	4/20/06	5.6	2.7	ND	ND
TI-7	51–56	1	4/21/06	1.9	2.0	ND	ND
TI-7	68–72	1	4/21/06	0.5 J	0.3 J	ND	ND
TI-8	31–36	1	4/28/06	0.1 J	ND	ND	ND
TI-8	39–44	1	4/28/06	0.2 J	ND	ND	ND
TI-8	45–50	1	4/28/06	0.2 J	ND	ND	ND
TI-8	54–59	1	5/2/06	0.5 J	ND	ND	ND
TI-8	64.5–69.5	1	5/2/06	ND	ND	ND	ND
TI-9	40–45	1	4/24/06	ND	ND	ND	ND
TI-9	46–51	1	4/21/06	1.2	ND	ND	ND
TI-9	54–59	1	4/23/06	0.8 J	ND	ND	ND
TI-9	59–64	1	4/22/06	1.5	ND	ND	ND

TABLE 3.3 (Cont.)

Location	Depth (ft below TOC)	Number of Samples	Sample Date	Concentration (μg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene
TI-10	40–45	1	4/26/06	0.4 J	ND	36	ND
TI-10	46–51	1	4/27/06	0.4 J	ND	11	ND
TI-10	54–59	1	4/27/06	0.4 J	ND	ND	ND
TI-10	59–64	1	4/27/06	0.3 J	ND	ND	ND
TI-10	66–71	1	4/25/06	ND	ND	ND	ND
TI-11	26–31	1	4/26/06	ND	ND	ND	ND
TI-11	33–38	1	4/27/06	ND	0.2 J	9.5	ND
TI-11	40–45	1	4/25/06	ND	ND	ND	ND
TI-11	46.3–51.3	1	4/23/06	0.9 J	0.1 J	ND	ND
TI-11	52.6–57.6	1	4/27/06	0.6 J	ND	ND	ND
TI-11	65.9–70.9	1	4/27/06	0.4 J	ND	ND	ND
TI-12	34–68.7	5	4/28/06–5/4/06	ND	ND	ND	ND

[a] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 μg/L.

[b] ND, not detected at a method detection limit of 0.1 μg/L.

TABLE 3.4 Summary of results of organic analyses of well samples and vertical-profile groundwater samples collected with the cone penetrometer on and near the Co-op property during the 2006 investigation at Navarre, Kansas.

			Concentration (µg/L)			
Location	Depth (ft below TOC)	Sample Date	Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene
Domestic wells						
Co-op 1	Unknown	4/8/06	1.2	0.8 J[a]	ND[b]	ND
Co-op 3	Unknown	4/8/06	197	44	3.6	0.2 J
Monitoring wells						
KDHE-2	25–45	4/7/06	ND	ND	ND	ND
NW-1	40–50	4/8/06	1.1	0.3 J	ND	ND
NW-2	35.5–45.5	4/9/06	313	74	3.2	0.2 J
Cone penetrometer samples						
TI-13	25–30	5/9/06	27	16	ND	ND
TI-13	35–40	5/5/06	387	197	0.6 J	ND
TI-13	42–47	5/5/06	116	60	1.2	0.1 J
TI-13	48–53	5/4/06	22	5.4	ND	ND
TI-13	54–59	5/5/06	22	5.8	ND	ND
TI-13	66.8–71.8	5/4/06	0.6 J	0.3 J	ND	ND
TI-14	26–31	5/6/06	148	36	1.9	0.2 J
TI-14	32–37	5/6/06	198	71	ND	0.3 J
TI-14	38–43	5/6/06	260	126	8.0	0.5 J
TI-14	47–52	5/6/06	229	90	5.2	0.4 J
TI-14	54–59	5/6/06	72	48	2.8	0.2 J
TI-14	67.4–72.4	5/5/06	6.0	280	12.6	ND
TI-15	15–20	5/8/06	ND	ND	ND	ND
TI-15	25–30	5/9/06	45	9.2	ND	ND
TI-15	35–40	5/7/06	21	6.0	ND	ND
TI-15	40–45	5/6/06	3.4	1.7	ND	ND
TI-15	47–52	5/6/06	2.4	2.3	ND	ND
TI-15	67.1–72.1	5/6/06	ND	ND	ND	ND
TI-16	25–30	5/9/06	851	535	2.6	0.1 J
TI-16	32–37	5/9/06	866	535	ND	0.3 J
TI-16	39–44	5/8/06	189	123	6.0	0.3 J
TI-16	46–51	5/9/06	56	32	ND	ND
TI-16	60–65	5/8/06	0.9 J	0.6 J	ND	ND
TI-16	67–72	5/8/06	0.8 J	2.4	ND	ND
TI-17	25–30	5/9/06	44	3.2	ND	ND
TI-17	32–37	5/8/06	1.5	0.7 J	ND	ND
TI-17	39–44	5/9/06	1.7	1.6	ND	ND
TI-17	46–51	5/9/06	1.1	0.6 J	ND	ND
TI-17	53–58	5/9/06	2.5	1.5	ND	ND
TI-17	60–65	5/9/06	0.5 J	0.9 J	ND	ND

TABLE 3.4 (Cont.)

Location	Depth (ft below TOC)	Sample Date	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene
Cone penetrometer samples (cont.)						
TI-18	25–30	5/23/06	57	11	ND	ND
TI-18	30–35	5/21/06	266	27	1.1	ND
TI-18	35–40	5/10/06	782	47	2.7	0.2 J
TI-18	42–47	5/21/06	218	48	7.3	ND
TI-18	49–54	5/21/06	325	92	2.8	0.4 J
TI-18	56–61	5/21/06	70	35	1.5	ND
TI-18	66.5–71.5	5/22/06	ND	0.2 J	ND	ND
TI-19	25–30	5/11/06	ND	ND	ND	ND
TI-19	32–37	5/11/06	ND	ND	ND	ND
TI-19	39–44	5/11/06	0.3 J	ND	ND	ND
TI-19	46–51	5/11/06	0.3 J	ND	ND	ND
TI-19	53–58	5/11/06	0.3 J	ND	ND	ND
TI-19	60–65	5/11/06	ND	ND	ND	ND
TI-19	65.5–69.5	5/11/06	ND	ND	ND	ND
TI-21	25–30	5/11/06	ND	ND	ND	ND
TI-21	32–37	5/11/06	0.9 J	0.9 J	ND	ND
TI-21	39–44	5/11/06	0.9 J	0.8 J	ND	ND
TI-21	46–51	5/11/06	1.2	0.8 J	ND	ND
TI-21	53–58	5/11/06	0.7 J	0.3 J	ND	ND
TI-21	60–65	5/11/06	ND	0.4 J	ND	ND
TI-22	32–37	5/10/06	120	17	ND	0.2 J
TI-22	39–44	5/10/06	26	12	ND	ND
TI-22	46–51	5/9/06	119	31	1.3	0.1 J
TI-22	53–58	5/10/06	356	29	1.1	ND
TI-22	60–65	5/10/06	116	21	1.1	ND
TI-22	68.2–73.2	5/10/06	ND	ND	ND	ND
TI-23	32–37	5/10/06	24	2.6	ND	ND
TI-23	39–44	5/11/06	11	6.5	ND	ND
TI-23	46–51	5/11/06	5.1	2.0	ND	ND
TI-23	53–58	5/11/06	1.5	0.5 J	ND	ND
TI-23	60–65	5/10/06	1.0	ND	ND	ND
TI-23	66.8–71.8	5/10/06	ND	ND	ND	ND
TI-24	23–30	5/11/06	ND	ND	ND	ND
TI-24	32–37	5/10/06	ND	ND	ND	ND
TI-24	39–44	5/10/06	1.5	1.9	ND	ND
TI-24	46–51	5/10/06	1.8	2.4	ND	ND
TI-24	53–58	5/10/06	1.4	1.7	ND	ND
TI-24	60–65	5/10/06	1.0	0.6 J	ND	ND
TI-24	69.4–74.4	5/10/06	ND	ND	ND	ND
TI-25	32–37	5/12/06	ND	ND	ND	ND
TI-25	39–44	5/11/06	ND	0.2 J	ND	ND
TI-25	46–51	5/11/06	1.7	1.4	ND	ND
TI-25	53–58	5/11/06	0.8 J	0.2 J	ND	ND

TABLE 3.4 (Cont.)

Location	Depth (ft below TOC)	Sample Date	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene
Cone penetrometer samples (cont.)						
TI-25	60–65	5/12/06	ND	ND	ND	ND
TI-25	66–71	5/12/06	ND	ND	ND	ND
TI-25	72.2–77.2	5/12/06	ND	ND	ND	ND
TI-26	25–30	5/12/06	1.1	0.7 J	ND	ND
TI-26	32–37	5/11/06	2.7	3.7	ND	ND
TI-26	39–44	5/11/06	1.0	3.5	ND	ND
TI-26	46–51	5/12/06	5.0	4.3	ND	ND
TI-26	53–58	5/11/06	4.8	3.1	ND	ND
TI-26	60–65	5/12/06	7.7	11	ND	ND
TI-26	66–71	5/12/06	3.2	8.1	ND	ND
TI-26	71.8–76.8	5/12/06	ND	ND	ND	ND
TI-27	25–30	5/19/06	1.0	0.7 J	ND	ND
TI-27	30–35	5/20/06	1.1[c]	2.3[c]	0.2 J[c]	ND
TI-27	35–40	5/19/06	ND	1.6	ND	ND
TI-27	42–47	5/20/06	7.9[c]	3.5[c]	ND	ND
TI-27	49–54	5/20/06	2.0[c]	0.7 J[c]	ND	ND
TI-27	56–61	5/21/06	ND	0.6 J	ND	ND
TI-27	66.2–71.2	5/20/06	ND	ND	ND	ND
TI-28	25–30	5/21/06	2692	238	1.3	1.3
TI-28	32–37	5/20/06	3104	646	6.3	3.1
TI-28	37–42	5/20/06	97	91	1.0	ND
TI-28	44–49	5/20/06	88	14	ND	0.1 J
TI-28	51–56	5/19/06	12	2.7	ND	ND
TI-28	58–63	5/19/06	15	8.9	ND	ND
TI-28	63–68	5/19/06	ND	ND	ND	ND
TI-29	25–30	5/23/06	39	39	2.6	ND
TI-29	32–37	5/22/06	75	55	4.2	ND
TI-29	39–44	5/21/06	269	87	3.9	ND
TI-29	46–51	5/21/06	182	86	3.3	ND
TI-29	53–58	5/21/06	18	31	1.5	ND
TI-29	60–65	5/21/06	9.4	21	0.9 J	ND
TI-29	66.3–69.3	5/21/06	3.4	4.3	ND	ND

[a] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 µg/L.

[b] ND, not detected at a method detection limit of 0.1 µg/L.

[c] Cross-contamination possible. See discussion in Supplement 4, Section S4.1.3.

TABLE 3.5 Summary of results of organic analyses of well samples and vertical-profile groundwater samples collected with the cone penetrometer at locations downgradient or upgradient from the targeted areas during the 2006 investigation at Navarre, Kansas.

			Concentration (µg/L)			
Location	Depth (ft below TOC)	Sample Date	Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene
Monitoring wells						
KDHE-1	35–55	4/7/06	0.1 J[a]	ND[b]	ND	ND
MW1	43–58	4/5/06	59	12	ND	ND
MW2	42.8–57.8	4/6/06	27	7.7	ND	ND
MW3	44–59	4/6/06	83	20	ND	0.1 J
MW4	45–60	4/6/06	194	21	ND	ND
MW5	78–88	5/25/06	0.4 J	ND	ND	ND
NW-3	38–48	5/25/06	34	2.0	ND	ND
L-1	75–95	4/8/06	54	11	ND	ND
L-2	80–90	4/6/06	0.2 J	ND	ND	ND
L-3	80–90	4/7/06	ND	ND	ND	ND
T1	40–60	4/7/06	118	20	ND	ND
Domestic well						
Anderson	68[d]	5/23/06	36	6.0	ND	ND
Anderson	68[d]	5/24/06	20	3.5	ND	ND
Anderson	68[d]	5/25/06	17	2.7	ND	ND
Cone penetrometer locations						
TI-20	35–40	5/22/06	15	5.4	ND	ND
TI-20	42–47	5/24/06	13	3.4	ND	ND
TI-20	56–61	5/23/06	7.8	7.4	ND	ND
TI-20	72–77	5/23/06	ND	ND	ND	ND
TI-30	32–37	5/25/06	0.4 J	0.5 J	ND	ND
TI-30	39–44	5/23/06	1.1	0.4 J	ND	ND
TI-30	43.8–48.8	5/23/06	2.5	0.9 J	ND	ND
TI-30	53–58	5/23/06	62	6.9	ND	ND
TI-30	60–65	5/23/06	43	5.5	ND	ND
TI-30	75–80	5/23/06	ND	ND	ND	ND
TI-30	83.5–88.5	5/24/06	ND	ND	ND	ND
TI-31	42–47	5/25/06	30	4.3	ND	ND
TI-31	53–58	5/25/06	91	14	ND	ND
TI-31	60–65	5/25/06	28	3.4	ND	ND
TI-31	70.7–75.7	5/24/06	ND	ND	ND	ND

[a] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 µg/L.

[b] ND, not detected at a method detection limit of 0.1 µg/L.

[c] Sample from 1-in. piezometer installed in 2006 at the TI-30 location.

[d] Total depth.

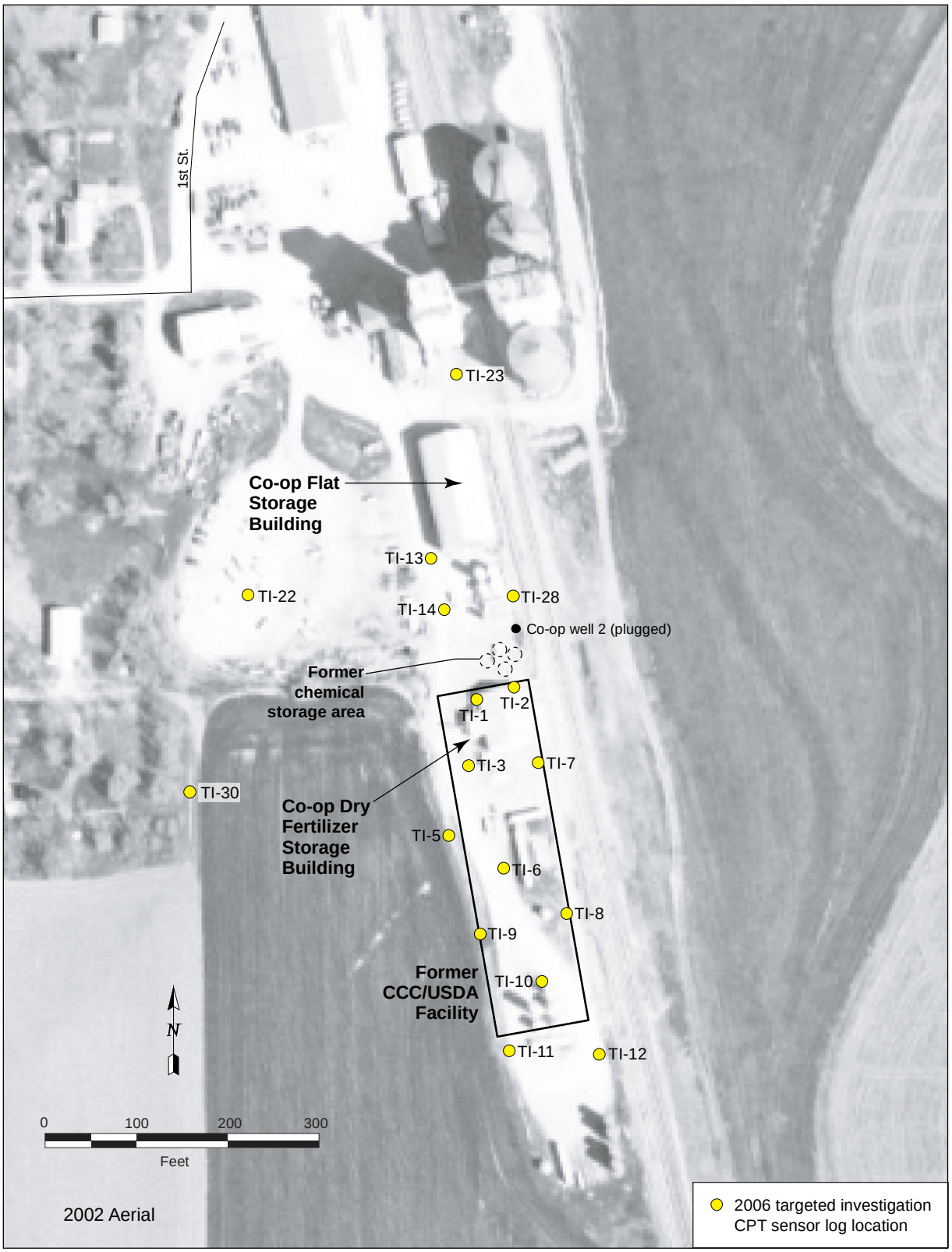


FIGURE 3.1 Cone penetrometer electronic sensor logging locations. Source of photograph: NAIP (2002).

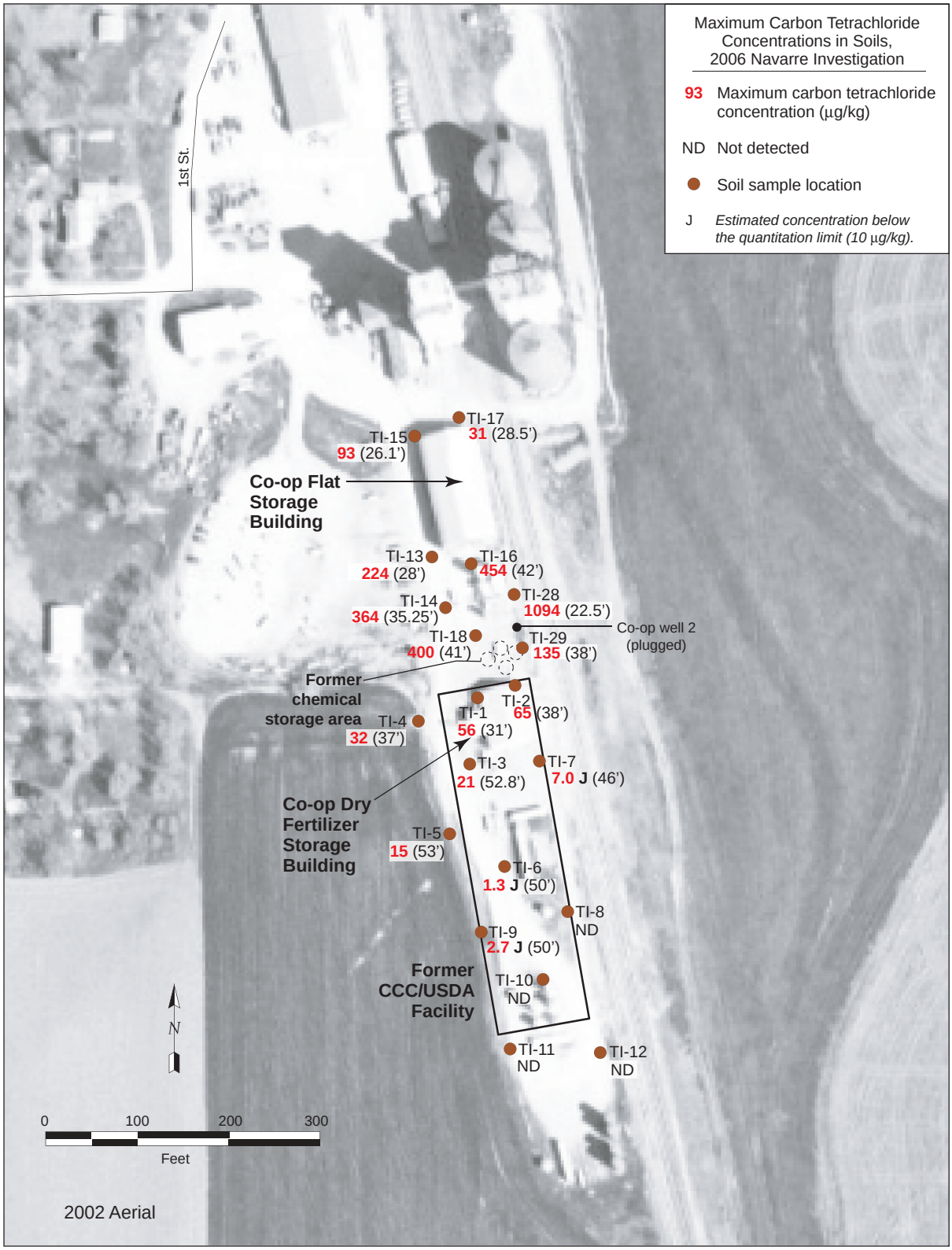


FIGURE 3.2 Maximum carbon tetrachloride concentrations in soil samples. Source of photograph: NAIP (2002).

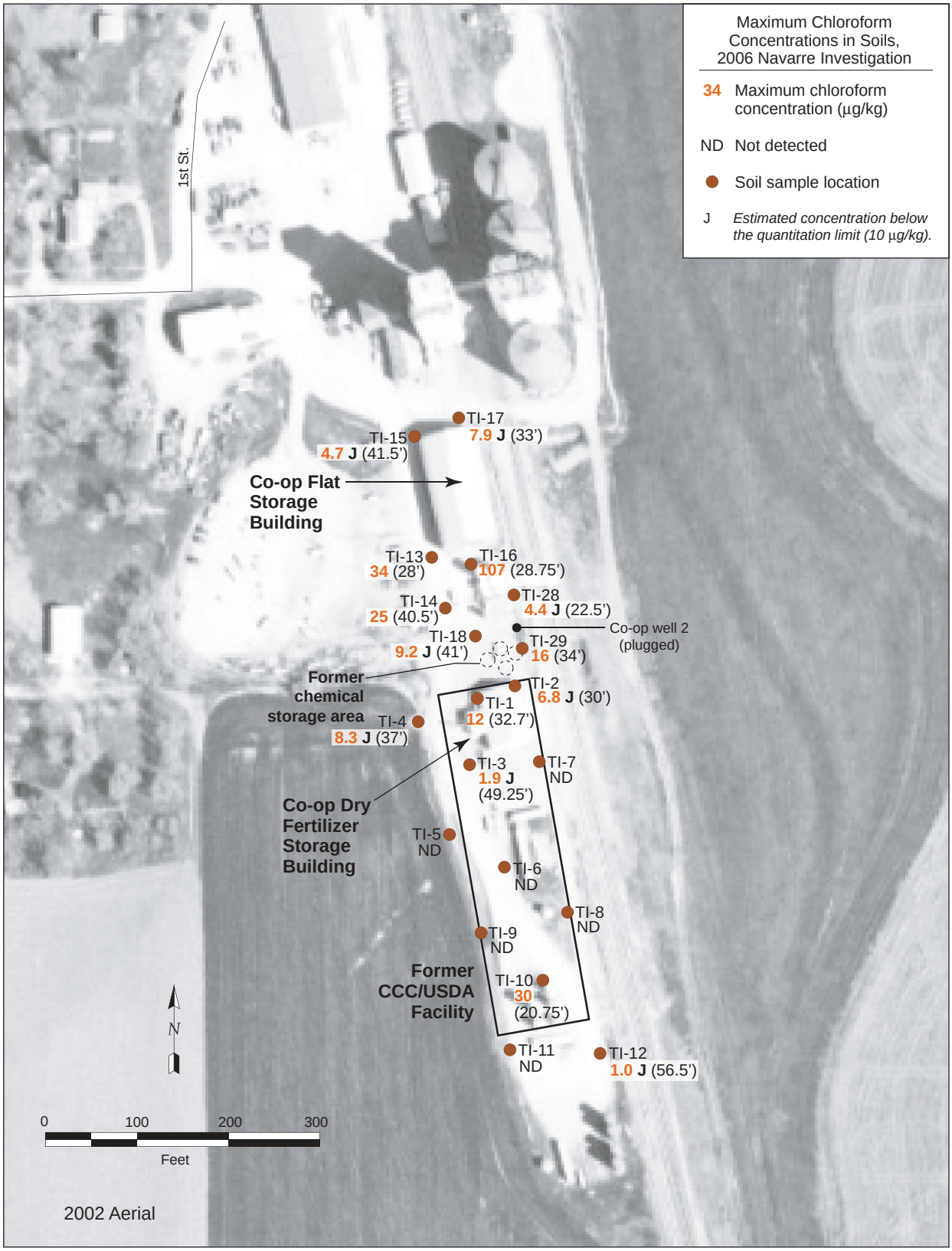


FIGURE 3.3 Maximum chloroform concentrations in soil samples. Source of photograph: NAIP (2002).

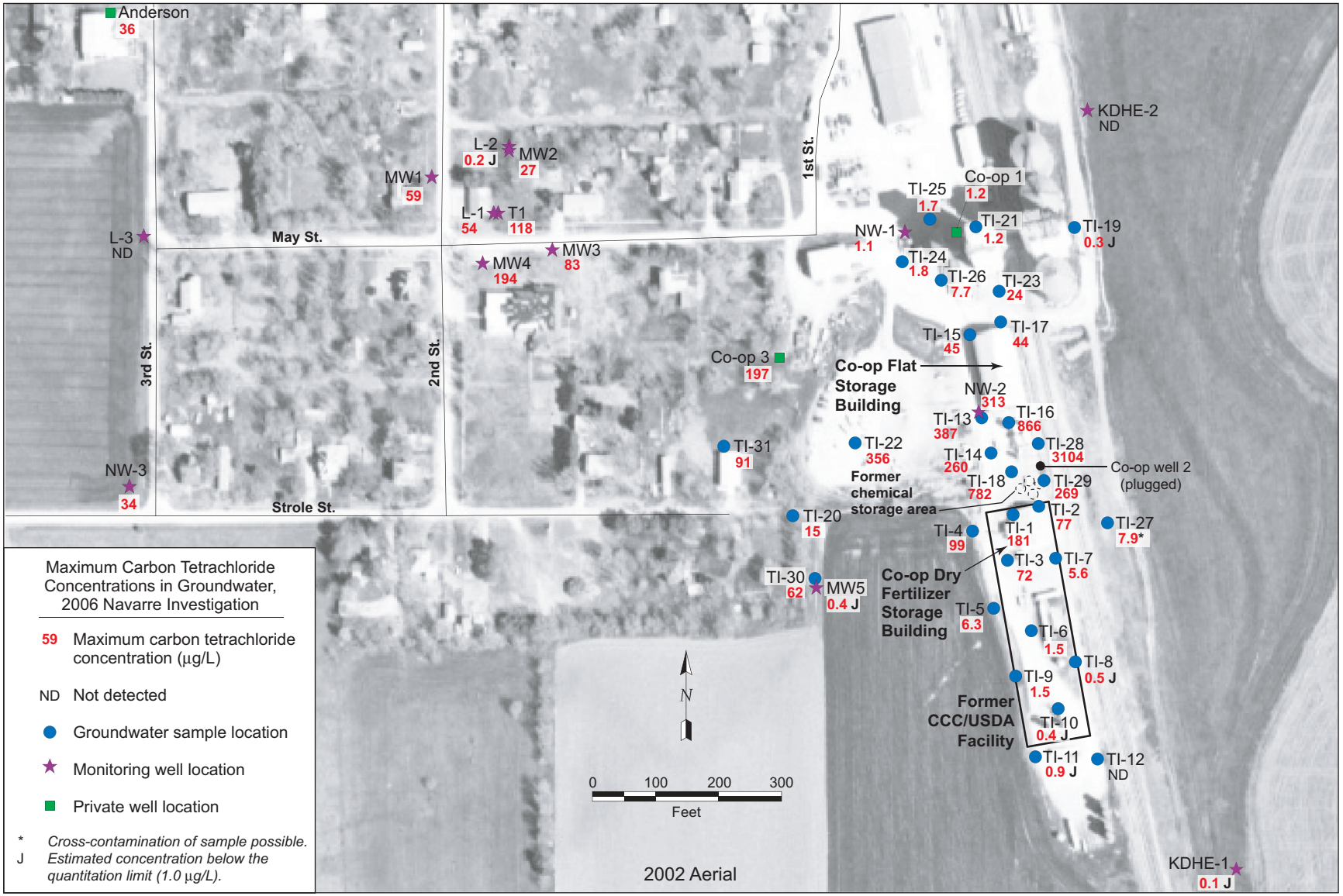


FIGURE 3.4 Maximum carbon tetrachloride concentrations in groundwater samples. Source of photograph: NAIP (2002).

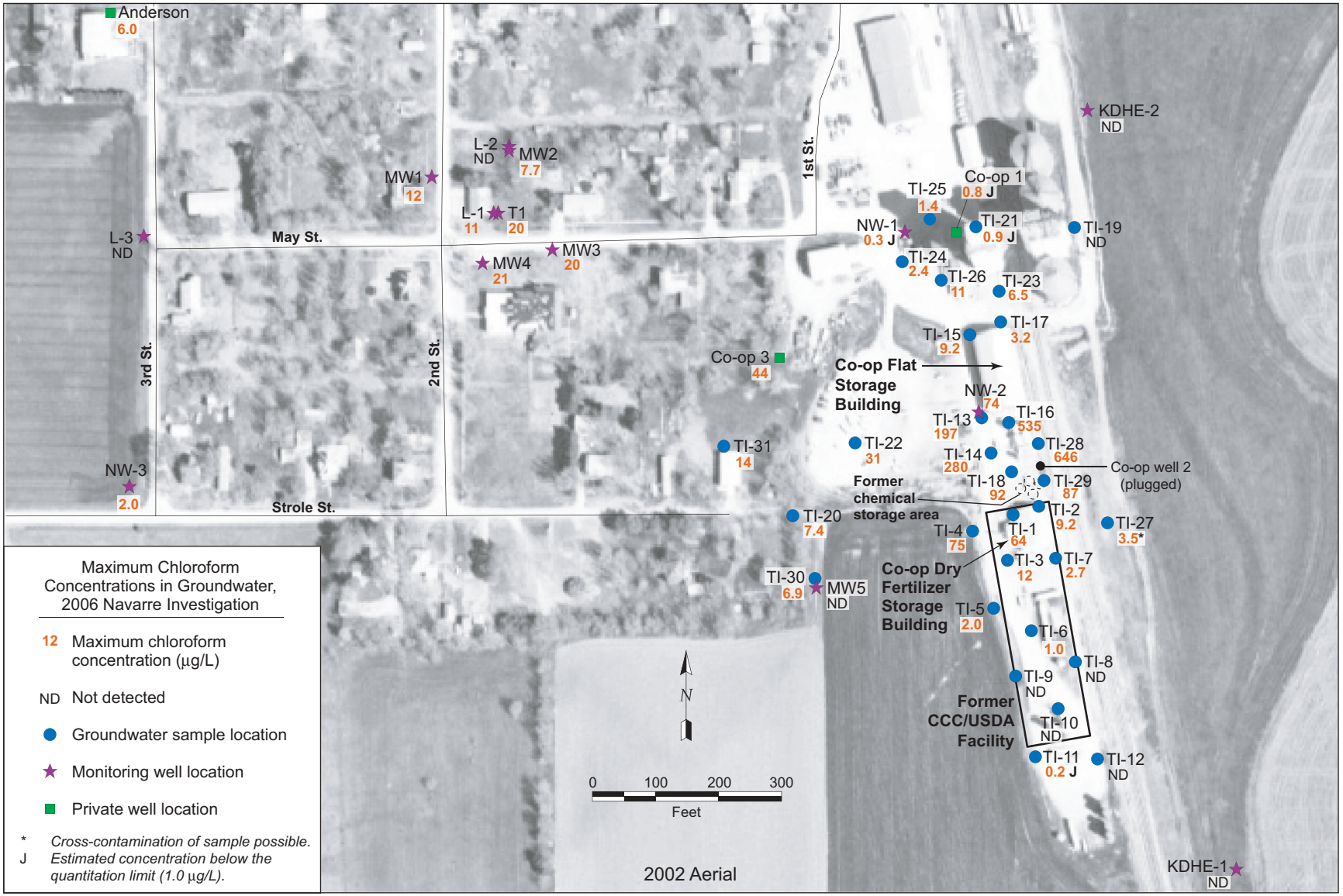


FIGURE 3.5 Maximum chloroform concentrations in groundwater samples. Source of photograph: NAIP (2002).

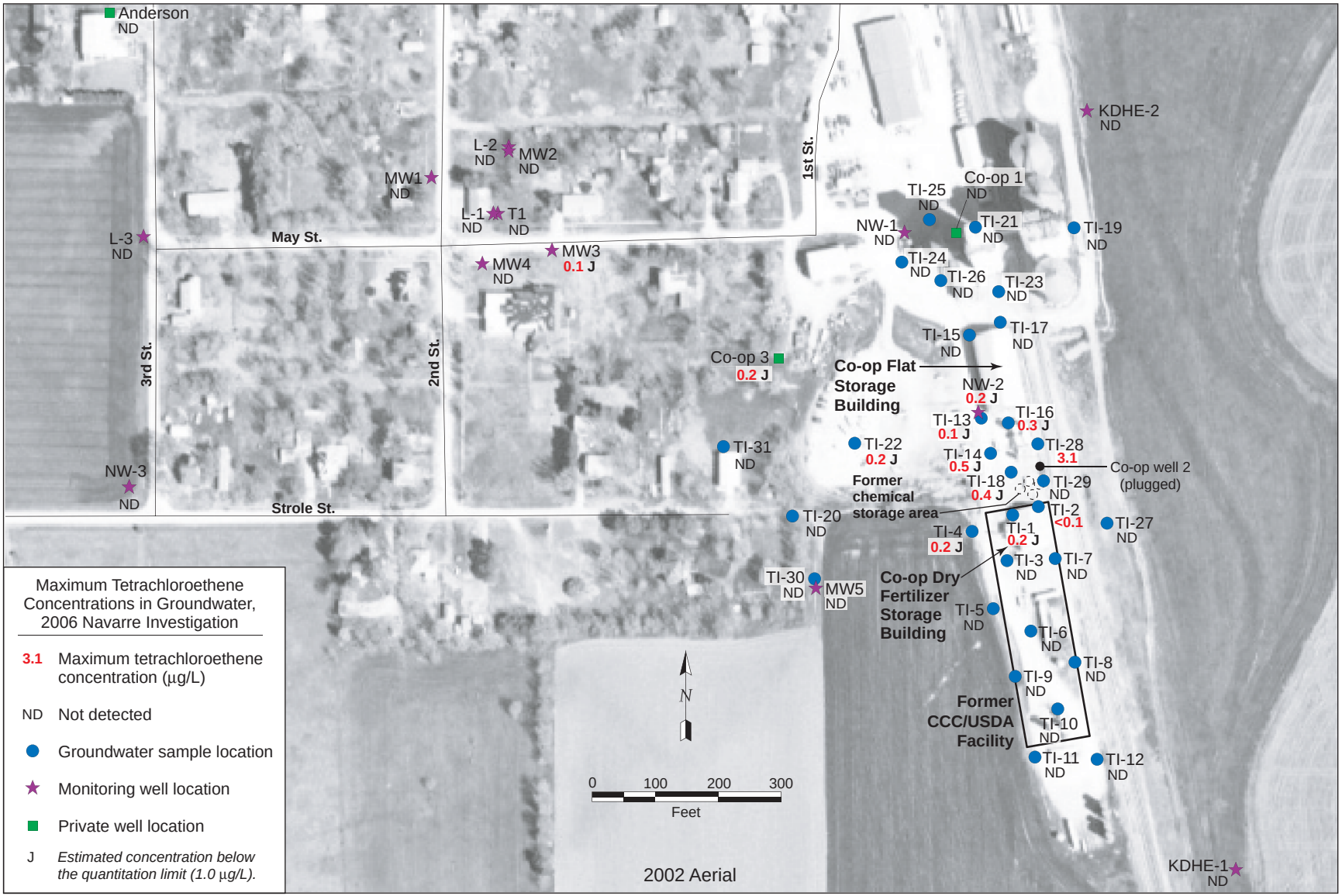
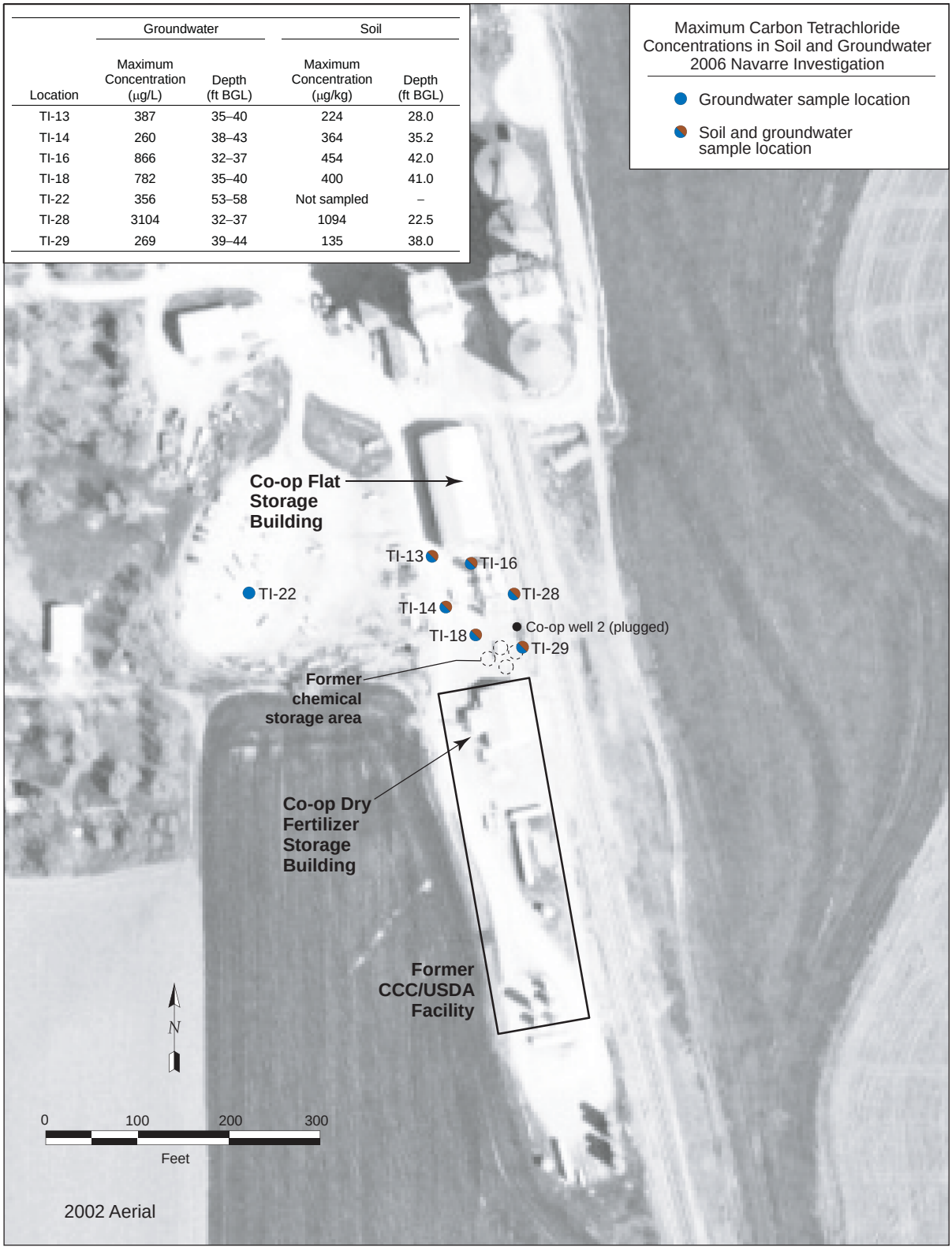


FIGURE 3.6 Maximum tetrachloroethene concentrations in groundwater samples. Source of photograph: NAIP (2002).



Location	Groundwater Maximum Concentration (µg/L)	Groundwater Depth (ft BGL)	Soil Maximum Concentration (µg/kg)	Soil Depth (ft BGL)
TI-13	387	35–40	224	28.0
TI-14	260	38–43	364	35.2
TI-16	866	32–37	454	42.0
TI-18	782	35–40	400	41.0
TI-22	356	53–58	Not sampled	–
TI-28	3104	32–37	1094	22.5
TI-29	269	39–44	135	38.0

FIGURE 3.7 Maximum carbon tetrachloride concentrations in soil and groundwater samples, with sample depths, in the area of greatest contamination. Source of photograph: NAIP (2002).

4 Data Interpretation

The 2006 investigation at Navarre was designed to accomplish two primary goals: (1) investigate specific areas of concern for potential sources that may be associated with the past use of carbon tetrachloride and (2) evaluate migration pathways for previously identified carbon tetrachloride contamination in groundwater. The task of accomplishing these goals included meeting the three technical objectives detailed in the KDHE-approved work plan (Section 1.1) and conducting further investigation at several locations on the former CCC/USDA property and on the Co-op property. The primary goals and technical objectives were met.

A source is the place or object where the contaminant of concern is released, and source areas are zones of highest contaminant concentrations in the soil or groundwater, or both (EPA 2007). Soil and groundwater analytical data collected during the Navarre investigation identified two primary source areas, both on the Co-op property. The primary source areas identified are as follows (Figure 4.1):

- The vicinity of the south door of the Co-op's flat storage building.
- The former well Co-op 2 and the area around the well that was formerly used for chemical storage.

The flat storage building was constructed in 1958. The identification of a location near this building as a source area is consistent with information in the Co-op's August 31, 2004, work plan (iSi 2004), which indicates that carbon tetrachloride was used by the Co-op until the mid 1980s and was used on several occasions at the flat storage building in the 1970s.

Former well Co-op 2 was used for chemical mixing and equipment washing (Warders 2000) until it was plugged on September 5, 1991 (KGS 2007). The date of this well's construction is not known; however, it may have been installed by the railroad prior to the Co-op's use of the area in which it was located (Stroda 2007). The former chemical storage area was used to store fertilizers.

Interpretations of the analytical data supporting these findings are presented in Section 4.2.

4.1 Site Geology and Hydrogeology

4.1.1 Site Geology

The site lithology and potential migration pathways were evaluated by identifying soil types in samples collected during probing activities, evaluating CPT electronic sensor data, and conducting grain size analyses on selected soil samples. The soil samples and the electronic sensor data were evaluated by Kansas licensed geologists, and grain size analyses were conducted by a laboratory certified for geotechnical testing. Selected lithologic logs and complete electronic sensor data are in Appendix A. The grain size analysis results are in Table S1.2 in Supplement 1. The lithologic data were further compiled and are depicted on two generalized geologic cross sections constructed for the locations shown in Figure 4.2. The cross sections are shown in Figure 4.3 (north-south; A-A') and Figure 4.4 (west-east; B-B').

The predominant lithology observed in all boreholes consisted of unconsolidated zones of silty clay and silty sandy clay with intermixed layers of sandy silt, silty sand, clayey sand, silty gravelly sand, sand, and silt. Also observed in most boreholes were calcite crystals with vuggy porosity, intermixed throughout the lithologic column. Bedrock consisting of sandstone and limestone fragments was encountered in three boreholes near the dry fertilizer building.

The northern and southern portions of the site show thicker and more persistent zones of silty clay and silty sandy clay with minor zones of silty gravel clay and clayey sand and sand. This pattern is evident at TI-17, TI-16, and TI-28 on the Co-op property and at TI-12 and TI-8 on and adjacent to the former CCC/USDA property (Figure 4.3). The silty clay and clayey silt layers that predominate at TI-17, TI-16, TI-28, and TI-8 would likely slow contaminant migration. The highest carbon tetrachloride concentrations detected in the soil and groundwater were within the silty clay zones at TI-16 and TI-28.

In the central portion of the site, near former well Co-op 2 and the dry fertilizer building, lithology was more variable, with thicker zones of silty sandy clay with gravel or limestone fragments, clayey sand, and thin sandstone layers. This type of lithology, which is evident at TI-29, TI-2, and TI-7 (Figure 4.3) and at TI-1 (Figure 4.4) typically exhibits higher permeability that could facilitate contaminant migration. This central portion of the site with more variable lithology is also near the identified sources at former well Co-op 2 and the former chemical storage area.

Thin layers of consolidated and semi-consolidated material were observed in four boreholes near the dry fertilizer building. These layers consisted of sandstone and caliche (zones of white to lighter colored very fine grained hard calcium carbonate deposits). A thin layer of poorly cemented, fragmented sandstone with occasional limestone fragments was encountered along the border between the former CCC/USDA property and the Co-op property (TI-2 and TI-4; Figure 4.4) and on the south side of the dry storage building at TI-3. Sandstone was encountered at 11-11.2 ft BGL at TI-2, at 25.5-26 ft BGL at TI-3, and at 34.8-35.2 ft BGL and 61-61.2 ft BGL at TI-4. These thin layers do not appear to be continuous throughout the area and are above the saturated zone at all locations except TI-4. Caliche was observed in three boreholes at depths below the water table: 59.8 ft BGL at TI-1, at 44.8-46 ft BGL at TI-3, and at 44.5-46.5 ft BGL and 61.2-62 ft BGL at TI-4. These sandstone and caliche layers typically have lower permeability that could slow contaminant migration.

Limited comparable lithologic units continue across the area of the investigation. The most prevalent units are the silty clay, clayey silts, and the silty sandy clay layers that are evident at varying depths in all boreholes. No definitive lithologic data generated in the 2006 investigation would indicate the presence of a continuous confining layer separating the water-bearing zone into two distinct units. The data indicated that only one aquifer is present throughout the area investigated. This interpretation is evident from soil core data, which showed only limited thin layers of consolidated material, as well as the fact that groundwater samples were collected *continuously* throughout the water column to CPT refusal.

On the former CCC/USDA property, the shallowest depth to refusal was 56 ft BGL at TI-3, and the deepest was 77.8 ft BGL at TI-5. On the Co-op property, refusal occurred between 65 ft BGL (at TI-17 and TI-21) and 77.2 ft BGL (at TI-25). At borehole locations downgradient from the former CCC/USDA and Co-op properties, the deepest groundwater sample was collected at TI-30, at a depth of 88.5 ft BGL.

The vertical and horizontal distribution of carbon tetrachloride in soil and groundwater at Navarre is displayed on generalized geologic cross sections A-A' (north-south; Figure 4.3) and B-B' (west-east; Figure 4.4). The cross sections show that the highest concentrations of carbon tetrachloride were detected in the silty clay and clayey silt layers at the areas near (1) former well Co-op 2 and the former chemical storage area (CPT location TI-28) and (2) the south door of the flat storage building (CPT location TI-16). These areas have been used intensely by the Co-op

for storing, handling, and mixing of chemicals. Lower concentrations of carbon tetrachloride were also observed in silty gravel clay layers and to a lesser extent in silty sandy clay layers.

The depths of the highest carbon tetrachloride concentrations in groundwater were correlated with the depths of the highest soil concentrations. The highest soil concentrations were detected in the capillary fringe and at the groundwater interface in boring TI-28. The highest groundwater concentrations were detected in the upper 10-12 ft of the saturated column encountered in borings TI-16 and TI-28, at roughly 25-40 ft BGL.

The high concentrations detected in the deeper vadose zone soil samples and in the upper part of the saturated column (at roughly 25-40 ft BGL) at locations TI-16 and TI-28 indicate the presence of an ongoing soil source. An additional significant finding is nearly complete absence of carbon tetrachloride in soil samples collected in the shallow vadose zone (shallower than a depth of approximately 20 ft BGL), except for a trace amount at 3.5 ft BGL at TI-16. These findings are consistent with a migration pathway involving introduction of carbon tetrachloride into the subsurface through a conduit such as former well Co-op 2, with subsequent lateral movement of the contaminant to groundwater.

4.1.2 Site Hydrogeology

4.1.2.1 Regional and Local Geologic and Hydrogeologic Background

Navarre is located on a local surface drainage divide trending approximately north-south, at an average elevation of about 1,350 ft above mean sea level (AMSL). Drainage east of the town is toward Carry Creek (trending north-south) and several small, incised feeder streams to Carry Creek (trending east-west). Drainage to the west is toward Turkey Creek (trending north-south, approximately 4 mi west of the town), again along with several small feeder streams trending east-west.

Navarre lies within the Flint Hills physiographic province. The Permian bedrock units that underlie this area dip to the west, but they have been regionally eroded to form an eastward-sloping paleosurface. This paleosurface is now undergoing dissection by modern streams. Regional stratigraphic studies (Lee 1956; Moore et al. 1951) suggest that individual units consisting predominantly of shale and limestone within the Lower Permian bedrock have

average thicknesses of 10-30 ft in the Navarre area. The water-bearing unit of concern at Navarre consists of variably to highly weathered sediments of the Permian Wellington Formation.

Estimates of regional dip ranging from 15 ft/mi to 35 ft/mi (due east to west) have been reported for the greater Flint Hills (Moore et al. 1951; Myers and Bigsby 1989). On this basis, local topographic relationships suggest that the groundwater-bearing unit identified at Navarre (or its lateral stratigraphic equivalents) is likely to have been penetrated by erosion along Turkey Creek, Carry Creek, and several of their associated feeder streams, thus forming natural hydraulic boundaries marking the potential maximum extent of groundwater migration to the east, west, or north from the vicinity of the town. Numerous springs identified at the headwaters of several of the streams trending east-west and feeding into Carry Creek are consistent with inferred groundwater discharge to the surface, within approximately 1 mi east of the town.

Groundwater in the Flint Hills region of Dickinson County in general is obtained from more permeable horizons within the Permian bedrock units. The production capacity of registered wells in the vicinity of Navarre that are completed in these units is variable but generally low (5-25 gpm). Testing performed by Argonne (1993) suggested a potential long-term yield for well T1, installed near the center of the town, of roughly 4.5-9 gpm. The well was pumped for the Argonne test at 5.7 gpm.

At least 40 private wells have reportedly been drilled within the town of Navarre. Records for these wells are largely unavailable; however, information obtained by the KDHE for a limited number of wells (KDHE 1998a) suggests that private well depths may range from about 30 ft to 85 ft. This range is generally comparable to the depth range represented by the screened intervals in the existing monitoring well network at the site (including wells MW5, L-1, L-2, and L-3). The KDHE findings indicate that most of the private wells and the monitoring wells are screened at depths shallower than 80 ft BGL.

Several previous investigations have been performed to estimate hydraulic parameters for the water-bearing unit at Navarre. These include attempted pumping tests by Argonne in both the shallower and deeper portions of the saturated zone (Argonne 1993, 1995), slug testing of the existing monitoring wells and interpretation of the resulting data by Papadopulos (2001), and subsequent reinterpretation of the latter slug test data by Argonne. The quantitative results of these efforts have yielded estimated hydraulic conductivities ranging from < 1 ft/day to approximately 18 ft/day for the shallower portion of the water-bearing unit (≤ 65 ft BGL), and

approximately 36 ft/day for the deeper interval screened at L-3 (79-89 ft BGL). The results for the monitoring wells grouped near the center of town (MW1-MW4, T1) showed considerable variation; the results of the analyses together suggest that the permeability distribution at Navarre is probably heterogeneous over relatively short distances, both laterally and vertically.

4.1.2.2 Results of the Groundwater Level Monitoring

To obtain detailed information on the patterns of groundwater level variations and flow at Navarre, groundwater levels were measured continuously in a suite of 12 monitoring wells (L-1, L-2, L-3, MW1, MW2, MW3, MW4, NW-1, NW-2, NW-3, KDHE-1, and KDHE-2) by using downhole pressure sensors with automatic data loggers. The loggers were programmed to collect one measurement every 4 hr. Periodically, water levels were also measured by hand in all of the monitoring wells at the site, by using an electronic drop line.

The results of the continuous water level monitoring are summarized in Figure 4.5. Complete data from the water level measurement activities in April to November 2006 are in Supplement 3 (on CD).

Figure 4.5 presents the hydrographs generated from the data logger records. With the exception of well L-3 (see below), the groundwater level traces for all of the monitored wells at Navarre are very similar in general morphology, showing a relatively slow, steady decline in levels throughout the spring and early summer of 2006, followed by a brief rebound in late August. The groundwater levels at the site subsequently remained fairly stable, declining only slightly during the fall and early winter of 2006. A maximum fluctuation in static water levels of approximately 3 ft to 4 ft was observed at a majority of the wells during the monitoring period.

Monthly rainfall totals for Enterprise, Kansas (approximately 7 mi north of Navarre), indicate that relatively average precipitation was received in the Navarre area during the period of declining water levels prior to August 2006 (Table 4.1). More detailed precipitation records for Enterprise are not available; however, daily precipitation data for Manhattan, Kansas (approximately 35 mi northeast of Navarre), are available (Table 4.2). The Manhattan precipitation data are compared in Figure 4.6 to the water level traces for selected monitoring wells at Navarre. Rainfall in April-July 2006 was received in numerous relatively small events, each yielding less than 1.5 in. of rain. In contrast, Figure 4.6 shows that the water level rebounds

(by up to 2 ft or more) observed at Navarre in August 2006 occurred in response to several heavy rains over a period of approximately 3 weeks. The available data for Enterprise and Manhattan suggest that Navarre received from 9 in. to 11 in. of rain during August 2006.

Figure 4.6 suggests that the apparent groundwater level responses to rainfall events are the greatest at wells NW-1, NW-2, and KDHE-2, on and near the northern portion of the Co-op property. This observation is consistent with a hypothesis that the greater responses reflect, in part, more effective vertical infiltration of precipitation in the northern portion of the Co-op property than in the remainder of the study area — due to the relatively large, flat areas of coarse surface gravel and the absence of vegetation in this portion of the property.

Argonne has previously identified static water levels that were both significantly lower (approximately 1,310 ft AMSL at MW1-MW4, in August 1992), and higher (approximately 1,325 ft at MW1-MW4, in May 1993) at Navarre than those observed during the current monitoring period. This pattern suggests that the recent data do not reflect the full range of groundwater levels that might have historically existed during (and following) the CCC/USDA grain storage activities at this site. Argonne water level monitoring also documented a rise of approximately 8 ft in groundwater levels at MW1-MW4 in response to approximately 8.5 in. of rain over a 30-day period in April and May 1993, demonstrating that water level fluctuations can be greater and can occur more rapidly than those observed during the recent monitoring (Argonne 1995).

The hydrograph for monitoring well L-3 (Figure 4.5), located at the western edge of Navarre, depicts numerous large, downward “spikes” that appear to be superimposed on the common “background” pattern of water level variations observed at the other monitoring locations. Coincident spikes (of much smaller magnitude) are also apparent in the water level traces for almost all of the other wells, with the possible exceptions of KDHE-1 and KDHE-2. Additional small spikes in the traces for MW1, MW2, MW3, MW4, NW-1, and NW-2 are coincident with each other but seem to be unrelated to those detected at L-3. These observations strongly suggest the following:

1. Both vertical and lateral hydraulic communication exists throughout much, if not all, of the groundwater-bearing unit at Navarre. This communication is attributable to natural permeable hydraulic pathways, further facilitated by

artificial pathways created by the continuous gravel packs or dual screens installed in some of the 40 or more private wells reported in Navarre.

2. Groundwater levels across much of the investigation site were influenced during the monitoring period by drawdown associated with the pumping of one (or more) nearby wells. As of this report, the well(s) responsible for the observed pumping effects have not been identified; however, there are no known large-capacity irrigation wells or other wells in the vicinity of the town.

Many of the prominent drawdown events identified at well L-3 began either in the early morning or mid to late afternoon and lasted from 8 hr to 24 hr or longer, although no regular pattern or time frame for water usage can be identified. Water level recovery to near-static levels appeared to require from 3-4 days at well L-3 following many of the individual drawdown events. These events occurred most frequently during the spring and early summer months of 2006, coinciding with the general decline in water levels observed across the site. Frequent pumping apparently ended following the heavy rains in late August 2006, because the groundwater levels briefly rebounded then remained fairly stable thereafter. These observations *suggest* that the frequent pumping might have contributed to the widespread decline in groundwater levels observed at Navarre during the spring and early summer of 2006. Nevertheless, a clear cause-and-effect relationship between the pumping and the groundwater level decline *cannot* be conclusively identified from the existing data.

Groundwater level measurements made by hand on April 24-25 and November 28, 2006, and values extracted from the data logger records for August 11 and September 23, 2006, were used to estimate the patterns of groundwater flow at Murdock under spring, summer, fall, and winter conditions. An additional data set for August 31, 2006, was also selected to illustrate the groundwater response to the late August rainfall/recharge event described above. The data were mechanically contoured to generate the potentiometric surface diagrams in Figure 4.7 (April 24-25), Figure 4.8 (August 11), Figure 4.9 (August 31), Figure 4.10 (September 23), and Figure 4.11 (November 28).

Figures 4.7-4.11 indicate that relatively little apparent change occurred in the direction of groundwater flow throughout the monitoring period, despite the fluctuations in groundwater elevations shown in Figure 4.5. Groundwater movement beneath the town to the west of the

former CCC/USDA facility and the Co-op is predominantly toward the west or slightly northwest. The figures suggest that the hydraulic gradient driving groundwater movement increases slightly to the west under all of the observed flow conditions.

Figures 4.9 (August 31) and 4.10 (September 23) depict the groundwater conditions at the site, respectively, at the peak of the late August 2006 rainfall/recharge event and shortly after a smaller rainfall event in late September 2006. The slight "bowing" of the groundwater levels toward the west (suggested in each of these diagrams in the vicinity of the Co-op property) is qualitatively consistent with the hypothesis of preferential recharge to the saturated zone described above. The hydrographs in Figure 4.5 indicate that such effects are expected to be transient and relatively short lived.

A manual groundwater level measurement was available at monitoring well MW5 for the November 28, 2006, data set only. The resulting potentiometric surface (Figure 4.11) suggests a region of reduced hydraulic gradient and a slightly more northwestward component of groundwater flow in the vicinity of the former CCC/USDA facility.

4.2 Source Area Identification

The 2006 investigation at Navarre targeted several locations on the Co-op property and the former CCC/USDA property. The goal was to identify potential source areas and contaminant migration pathways. Activities to accomplish this goal included collection of soil samples from 20 CPT boreholes (TI-1 through TI-18, TI-28, and TI-29) and groundwater samples at 26 CPT locations (TI-1 through TI-19, TI-21, TI-23 through TI-26, TI-28, and TI-29). All investigated locations were near previously identified potential source areas (Figure 4.1).

Two source areas were identified at CPT boreholes TI-16 and TI-28 (Figure 4.12). Borehole TI-16 is at the door on the south side of the flat storage building. Borehole TI-28 is adjacent to the former location of well Co-op 2 and chemical storage areas on the Co-op property. Analytical data from CPT boreholes TI-13, TI-14, and TI-18 further substantiate the presence of a source in this area. Contaminant concentrations in both soil and groundwater decrease significantly at locations north, south, and west of the TI-16 and TI-28, consistent with origination of the contamination at and near these locations. Both TI-16 and TI-28 are near the

former well Co-op 2, which could have functioned as a conduit for vertical contaminant migration.

Analytical data for soil and groundwater show that the area between the south end of the flat storage building (location TI-16 in cross section A-A'; Figure 4.3) and the north end of the dry fertilizer building (location TI-2 in Figure 4.3) exhibited the highest concentrations of carbon tetrachloride detected during the 2006 investigation. The groundwater data, coupled with the soil data, further indicate that the contamination detected in this area could have been introduced into the subsurface through a conduit such as former well Co-op 2.

The area between the flat storage building and the dry fertilizer building is owned by the Co-op and has been intensely used for chemical storage, handling, and mixing throughout the history of Co-op operation in this area. The CCC/USDA has never operated on or leased this area of the Co-op. Furthermore, the Co-op's southern property boundary has expanded over time to include all of the former CCC/USDA property (Figure 4.13). By 1969 the Co-op owned the entire northern half of the former CCC/USDA property, and by 1975 the Co-op owned the entire former CCC/USDA property. The Co-op used carbon tetrachloride as a grain fumigant at its facility until the mid 1980s (iSi 2004).

4.2.1 Evidence from Groundwater Data

Groundwater samples collected at TI-28 showed carbon tetrachloride concentrations of 2,692 µg/L at a depth of 25-30 ft BGL and 3,014 µg/L at 32-37 ft BGL. These results represent the highest contaminant levels detected at all groundwater sampling locations during the 2006 investigation. As s Figure 4.3 shows, the concentrations at location TI-28 decreased significantly with depth (Table 3.4). The following pattern of high concentrations in the shallower zones and decreasing concentrations with depth at TI-28 indicates the presence of a carbon tetrachloride source in the immediate vicinity of this location:

- 2,692 µg/L at 25-30 ft BGL
- 3,104 µg/L at 32-37 ft BGL
- 97 µg/L at 37-42 ft BGL

- 88 µg/L at 44-49 ft BGL
- 12 µg/L at 51-56 ft BGL
- 15 µg/L at 58-63 ft BGL
- Not detected at 63-68 ft BGL

A similar trend at location TI-16 (Table 3.4 and Figure 4.3) indicates the presence of another source area at this location. Results for carbon tetrachloride in groundwater at TI-16 were as follows:

- 851 µg/L at 25-30 ft BGL
- 866 µg/L at 32-37 ft BG
- 189 µg/L at 39- 44 ft BGL
- 56 µg/L at 46-51 ft BGL
- Trace levels at 60-65 ft BGL and at 67-72 ft BGL

At downgradient and cross-gradient locations (TI-1, TI-2, TI-3, TI-4, TI-5, TI-7, TI-13, TI-14, TI-15, TI-18, and TI-29; Tables 3.3 and 3.4), lower carbon tetrachloride concentrations and contaminant distribution throughout the saturated column indicate that a source is nearby. At all of these locations except TI-1, the observation of maximum carbon tetrachloride concentrations at intermediate depths, with lower concentrations above and below, indicates lateral migration from a nearby source area. At TI-1, the concentrations were significantly lower than at the source areas. The highest concentration at TI-1 was detected in the shallower sample (181 µg/L at 30-35 ft BGL), and concentrations decreased with depth. Location TI-1 is adjacent to the former chemical storage area on the Co-op property.

Groundwater samples from the southern part of the former CCC/USDA property showed only trace to low concentrations of carbon tetrachloride. None of the concentrations indicated

that a source area for carbon tetrachloride was present. Other VOCs detected in the southern part of the former CCC/USDA property were benzene, toluene, and methylene chloride at TI-10 and TI-11. The active ASTs owned and operated by the Co-op in this area are the source of these compounds.

Chloroform concentrations in groundwater samples at the source areas (TI-16 and TI-28) showed trends similar to the carbon tetrachloride distribution. Chloroform is a degradation product of carbon tetrachloride. The presence of chloroform at concentrations and with concentration trends that are comparable to those for carbon tetrachloride indicates that natural degradation is occurring. Other VOCs detected at the source areas and adjacent locations were tetrachloroethene and methylene chloride. Methylene chloride can also be a degradation product of carbon tetrachloride.

4.2.2 Evidence from Soil Data

Soil analytical data from locations TI-16 and TI-28 confirm that an ongoing source for carbon tetrachloride is present at these locations, as indicated by the concentrations detected and the contaminant distribution throughout the soil column (Table 3.2). Figure 4.3 shows the vertical distribution of carbon tetrachloride at both locations. The nearly complete absence of contamination in the upper part of the vadose zone at all sample soil locations during this investigation is further evidence that contamination may have migrated through a conduit such as former well Co-op 2.

At TI-28, the highest concentration of carbon tetrachloride (1,094 µg/kg) was detected in a soil sample just above the water table. This concentration far exceeds the RBSL of 200 µg/kg for the soil-to-groundwater protection pathway. Below this sample, the concentrations at TI-28 gradually decreased with depth.

Similar results were observed at TI-16 (Table 3.2). The primary differences between soil analytical data from TI-16 and TI-28 are that at TI-16, the following trends were observed:

1. The carbon tetrachloride concentrations were lower.

2. No carbon tetrachloride (above the AGEM method quantitation limit of 10 µg/kg) was detected above the water table.

3. One sample collected in an intermediate zone (42 ft BGL, 454 µg/kg) showed a higher concentration than any other sample at the location.

Soil samples collected at adjacent locations (TI-1, TI-2, TI-14, and TI-18) generally showed higher carbon tetrachloride concentrations in the intermediate zone, with lower concentrations above and below. The only exception was the samples from location TI-13; here the highest carbon tetrachloride concentrations were detected in the upper zone, at the surface of the water table. This location is at the southwest corner of the flat storage building, where grain was loaded onto trucks.

The highest concentration detected in soil at or adjacent to the former CCC/USDA property was 65 µg/kg at 38 ft BGL at TI-2 (Table 3.1). This concentration does not exceed the RBSL of 200 µg/kg for the soil-to-groundwater protection pathway. Lower concentrations were detected in soil samples at CPT locations TI-1, TI-3, and TI-4, as well as in one sample from location TI-5. The concentrations detected and their distribution throughout the soil column indicate that a source is nearby and that the contamination is likely associated with migration through groundwater.

The only other location on or adjacent to the former CCC/USDA property that contained soil contamination above the AGEM method quantitation limit of 10 µg/kg was TI-10 (Table 3.1). Carbon tetrachloride was not detected at any depth at this location; however, several other VOCs, including chloroform, were detected at depths from 17-25.5 ft BGL. This location is adjacent to ASTs that are owned by the Co-op and are actively being used to store and dispense diesel fuel and gasoline. The compounds detected in soil samples at this location include chloroform, methylene chloride, benzene, 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,1-dichloroethane, 1,2-dichloropropane, chlorobenzene, chlorodibromomethane, and toluene. Most of these compounds are typically associated with petroleum fuels or are breakdown products of fuels. The concentrations detected in the soil exceeded the RBSL for methylene chloride, benzene, 1,1,2,2-tetrachloroethane, and 1,1,2-trichloroethane. Petroleum-related contamination detected at this location is not associated with past activities of the CCC/USDA.

4.3 Contaminant Migration Pathways

Potential horizontal and vertical migration pathways explored during this investigation included unsaturated and saturated flow, the influence of pumping wells, surface spillage, surface runoff, and potential migration through a conduit such as former well Co-op 2.

Soil and groundwater samples collected at locations approved by the KDHE along surface drainage pathways and near former locations of grain bins on the former CCC/USDA property did not contain significant concentrations of carbon tetrachloride and did not exhibit contaminant distribution patterns that would demonstrate a source from surface drainage or spillage on the former CCC/USDA property. This is evident from the absence of any detectable level of carbon tetrachloride or chloroform in shallow soil samples and the low concentrations (below the RBSL of 200 µg/kg for the soil-to-groundwater protection pathway) detected in soils at all locations on the former CCC/USDA property.

The absence of soil contamination (at concentrations above the AGEM method detection limit) in the upper part of the vadose zone (at depths shallower than approximately 20 ft BGL) at all soil sampling locations indicates that contamination may have been introduced through a conduit such as former well Co-op 2. As Figure 4.13 illustrates, this well was located near TI-28 and was intensely used for chemical mixing and equipment washing before it was plugged on September 5, 1991 (KGS 2007). The date and type of construction for this well are not known.

The predominance of soil contamination in the saturated zone at locations downgradient and cross-gradient from the source areas at TI-16 and TI-28 indicates that contamination is likely associated with horizontal migration through the saturated zone.

The residual contamination detected at the cross-gradient locations on the former CCC/USDA property is likely associated with documented liquid grain fumigant handling and application activities on the Co-op property, at and near the south door of the flat storage building, former well Co-op 2, and the former chemical storage area.

The trace to low residual contaminant concentrations detected in groundwater on the southern portion of the former CCC/USDA facility are likely associated with the normal use of grain fumigants on the property by the CCC/USDA or the Co-op. The CCC/USDA operated in this area from 1954 to approximately 1965. The Co-op has owned and operated in the area

formerly occupied by the CCC/USDA from approximately 1969 to the present. The Co-op continued to use carbon tetrachloride until the mid 1980s (iSi 2004).

4.4 Contaminant Distribution throughout the General Investigation Area

To identify the contaminant plume in the general investigation area, groundwater samples were collected from 13 monitoring wells, 3 private wells, and 3 CPT locations (Table 2.1 and Figure 3.4). The private wells sampled are not used as potable water sources; however, one well (Co-op 3) was historically used by the Co-op to wash equipment and mix bulk chemicals at the active chemical storage area, which is located within the area of highest contamination and is adjacent to TI-14, TI-16, TI-18, and TI-28. Water from well Co-op 3 drains into a concrete basin and also is discharged onto the gravel surrounding the active chemical storage tanks. These activities were observed by Argonne personnel during the investigation.

The analytical data for groundwater from the wells sampled in the general investigation area indicate that the carbon tetrachloride contamination is generally widespread and that the plume is migrating in a generally west to northwesterly direction. Figure 4.12 shows the known extent of the contaminant plume with concentration gradients. Groundwater level data collected during the investigation confirmed a west to northwestern flow direction.

The carbon tetrachloride concentrations detected in groundwater from monitoring wells downgradient from the source areas on the Co-op property have generally decreased, as compared to previous sampling events (Table D.1 in Appendix D). This trend is illustrated as follows:

- MW1: 59 μg/L in 2006; 157 μg/L in 1993
- MW2: 27 μg/L in 2006; 99 μg/L in 1993
- MW3: 83 μg/L in 2006; 395 μg/L in 1993
- MW4: 194 μg/L in 2006; 198 μg/L in 1993
- Co-op 3: 197 μg/L in 2006; 440 μg/L in 1992

- T1: 118 µg/L in 2006; 249 µg/L in 1993

- L-1: 54 µg/L in 2006; 100 µg/L in 1994

Well data from one downgradient location (NW-3) showed no significant change in carbon tetrachloride levels through time (30.8 µg/L in 2000 and 34 µg/L in 2006).

The 2006 carbon tetrachloride concentrations in most monitoring wells were the lowest since the wells were initially sampled in the early 1990s. The only exceptions are the slight increases in samples collected from NW-3 and the concentration fluctuations that have been detected periodically in L-1. The chloroform concentrations at some locations showed a trend indicating that natural degradation may be occurring. These results indicate that the contaminant plume continues to migrate and that the compounds are being degraded and diluted over time.

Results from existing monitoring well NW-2 on the Co-op property showed a slight increase from 2000 (243 µg/L) to the most recent sampling event in 2006 (313 µg/L). Well NW-2 is near the source areas identified on the Co-op property.

Other monitoring wells sampled during the 2006 investigation (KDHE-1, KDHE-2, L-2, L-3, and MW5) contained no carbon tetrachloride above the method quantitation limit of 1.0 µg/L.

Samples from the Anderson private well contained carbon tetrachloride at levels ranging from 17 µg/L to 36 µg/L. Three samples were collected from this well over a two-day period in an effort to gauge the potential impact of drawdown on a nearby monitoring well (L-3). Contaminant concentrations decreased after the initial sampling event on May 23, 2006, and drawdown was observed in well L-3.

The three downgradient CPT locations (TI-20, TI-30, and TI-31) showed carbon tetrachloride concentrations that exceeded the RBSL of 5.0 µg/L. These locations are west of the Co-op property and the former CCC/USDA property.

Other VOCs detected in the general study area were chloroform, methylene chloride, and tetrachloroethene. Chloroform and methylene chloride are degradation products of carbon

tetrachloride. Tetrachloroethene was detected at trace levels in groundwater samples collected from existing monitoring wells Co-op 3, MW-3, and NW-2.

Tetrachloroethene was historically detected in well Co-op 2, which was located near the identified source area on the Co-op property. This well was plugged in 1991. Construction details for Co-op 2 are unknown; however, it was sampled in 1991 with analytical results of 511 µg/L for carbon tetrachloride, 62.3 µg/L for chloroform, 6.6 µg/L for methylene chloride, 3.4 µg/L for tetrachloroethene, and 0.9 µg/L for 1,2-DCA.

TABLE 4.1 Monthly precipitation data for Enterprise, Kansas, approximately 7 mi north of Navarre. Source of data: Kansas State University, K-State Research and Extension, Weather Data Library, http://www.oznet.ksu.edu/wdl/.

	Precipitation (in.) in Month												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2000	0.55	2.90	3.42	2.28	2.25	5.70	3.13	0.34	0.87	2.65	0.76	1.20	26.05
2001	2.26	2.75	1.78	3.03	3.82	3.45	2.92	3.22	1.72	1.48	0.79	0.42	27.64
2002	0.01	0.27	0.39	3.36	3.43	1.69	1.03	2.20	1.01	6.30	0.44	0.24	20.37
2003	0.28	1.17	1.91	3.53	3.40	2.95	0.68	4.87	2.09	1.17	0.75	1.02	23.82
2004	0.77	1.18	4.54	1.62	3.49	5.41	9.81	1.26	1.57	1.92	1.81	0.30	33.68
2005	1.41	2.00	1.91	2.56	4.01	12.15	2.13	6.61	1.30	1.79	1.24	0.66	37.77
2006	0.31	0.00	M[a]	2.83	2.91	2.88	1.33	9.04	1.67	2.72	0.05	1.81	25.55

[a] Data missing.

TABLE 4.2 Daily precipitation data for Manhattan, Kansas, approximately 35 mi northeast of Navarre. Source of data: Kansas State University, K-State Research and Extension, Weather Data Library, http://www.oznet.ksu.edu/wdl/.

	Month in 2006								
Day	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	–[a]	–	0.11	–	–	–	–	–	–
2	–	0.58	–	–	0.67	0.14	–	–	–
3	–	0.20	–	1.30	–	–	–	–	–
4	–	0.18	–	0.01	–	–	–	–	–
5	–	–	0.01	–	–	–	–	–	–
6	–	–	–	–	–	–	–	–	–
7	–	–	–	–	–	–	–	–	–
8	–	0.67	–	–	–	0.01	–	–	–
9	–	0.01	–	1.27	–	0.82	0.04	–	–
10	–	–	0.07	0.34	0.49	0.04	0.40	–	–
11	–	–	0.01	0.02	0.01	–	–	–	–
12	–	–	–	–	–	–	–	–	–
13	–	–	–	–	1.11	–	–	–	–
14	–	–	–	–	1.02	–	–	–	–
15	–	–	–	–	0.01	0.02	0.12	–	–
16	–	–	0.28	–	0.01	–	0.06	–	–
17	–	–	0.48	–	0.60	0.55	0.02	–	–
18	–	–	–	–	3.42	–	–	–	–
19	–	–	–	–	0.20	–	–	–	–
20	–	–	0.03	–	–	–	–	–	0.42
21	–	–	0.30	0.72	–	0.37	0.11	–	0.01
22	–	–	0.01	–	–	0.03	–	–	–
23	–	–	–	–	–	0.01	–	–	–
24	0.19	–	–	–	–	–	–	–	–
25	0.02	–	0.07	–	1.43	–	1.51	–	–
26	–	0.31	–	–	1.83	–	0.13	–	–
27	–	–	–	0.05	0.30	–	0.12	0.07	–
28	1.28	–	0.04	–	0.04	–	–	–	–
29	0.13	0.20	0.04	–	–	–	–	–	–
30	–	0.70	–	–	–	–	–	–	–
31		0.03		–	–		–		–
Total	1.62	2.88	1.45	3.71	11.14	1.99	2.51	0.07	0.43

[a] No recorded precipitation.

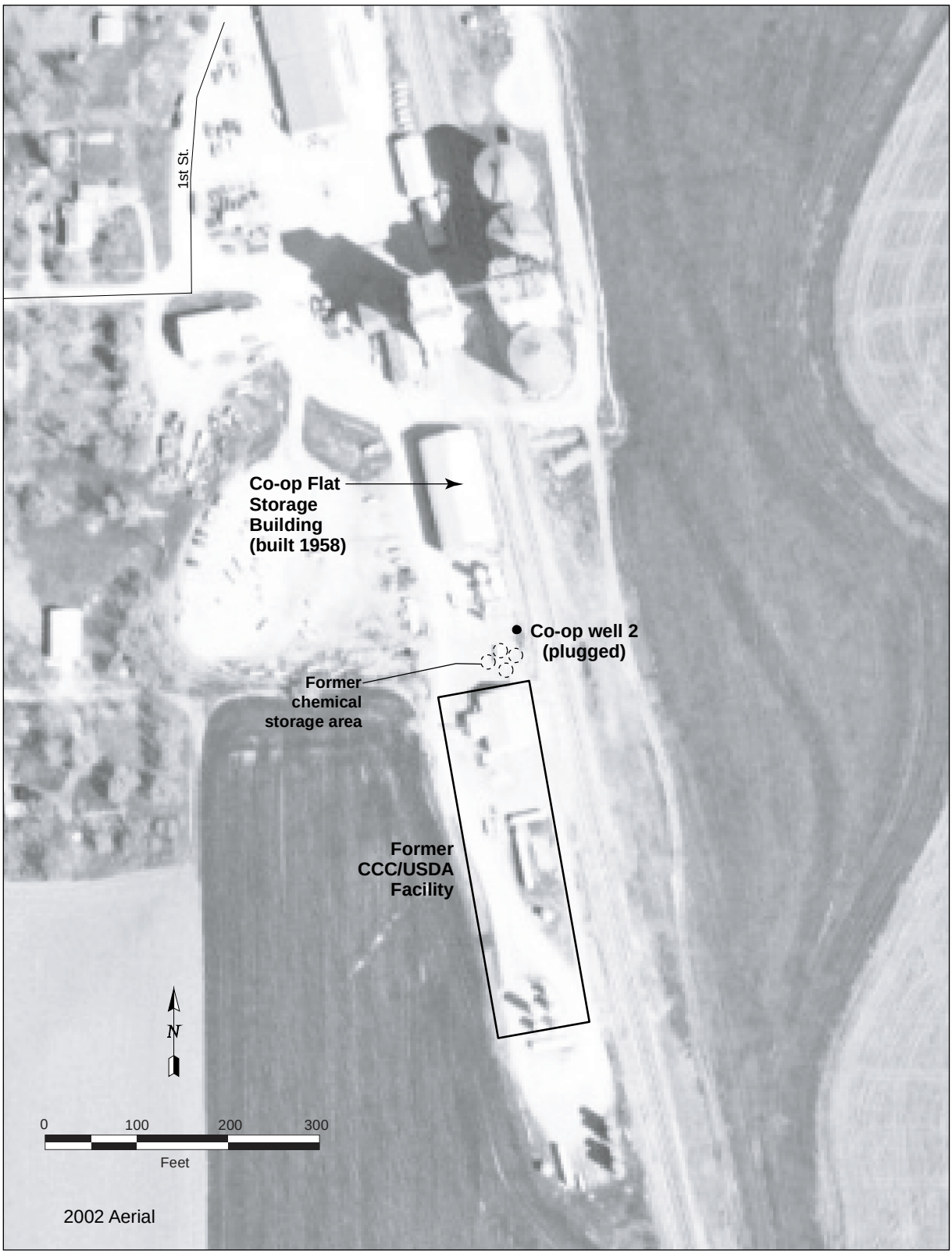


FIGURE 4.1 Locations of contaminant source areas at Navarre. Source of photograph: NAIP (2002).

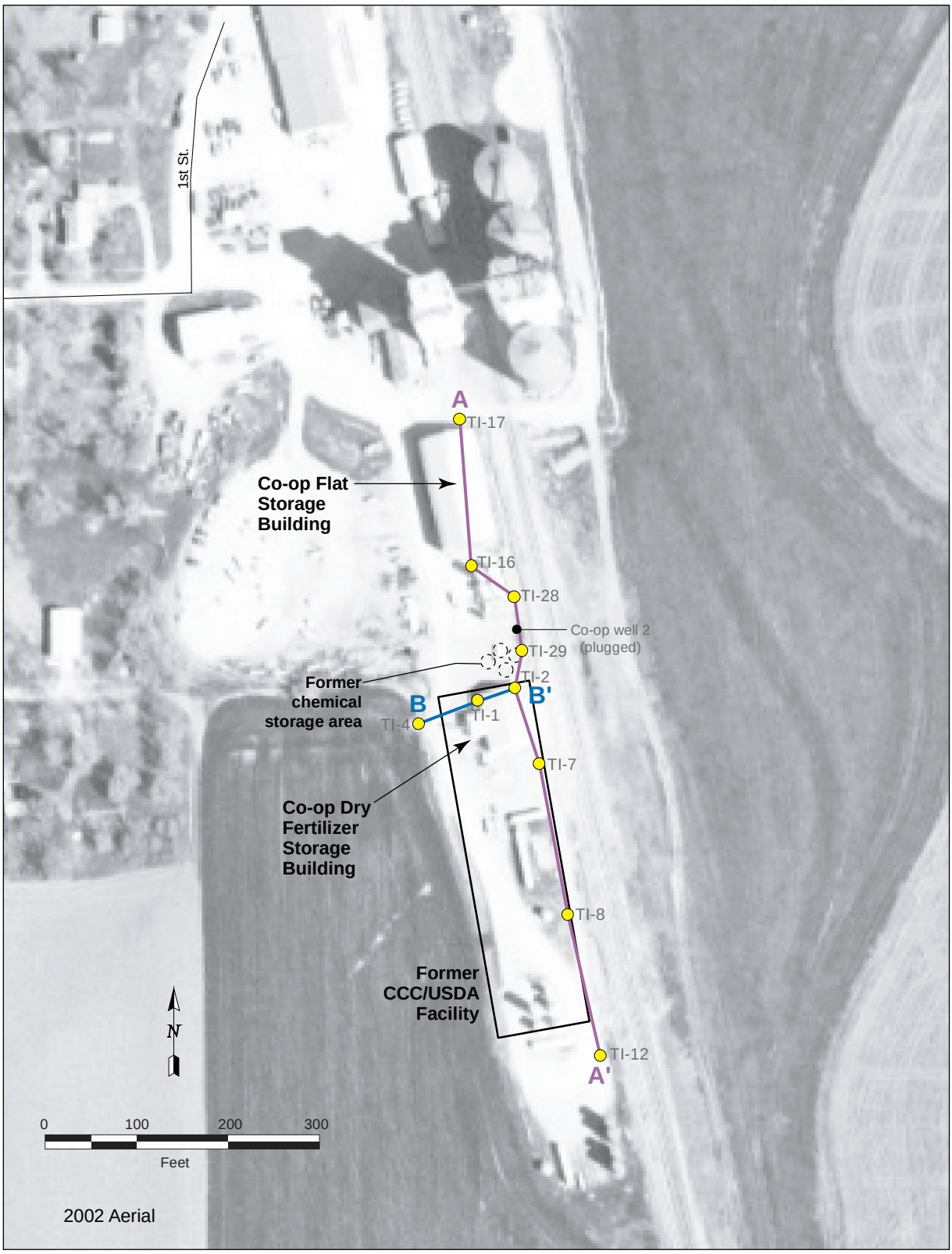


FIGURE 4.2 Locations of hydrogeologic cross sections A-A′ and B-B′. Source of photograph: NAIP (2002).

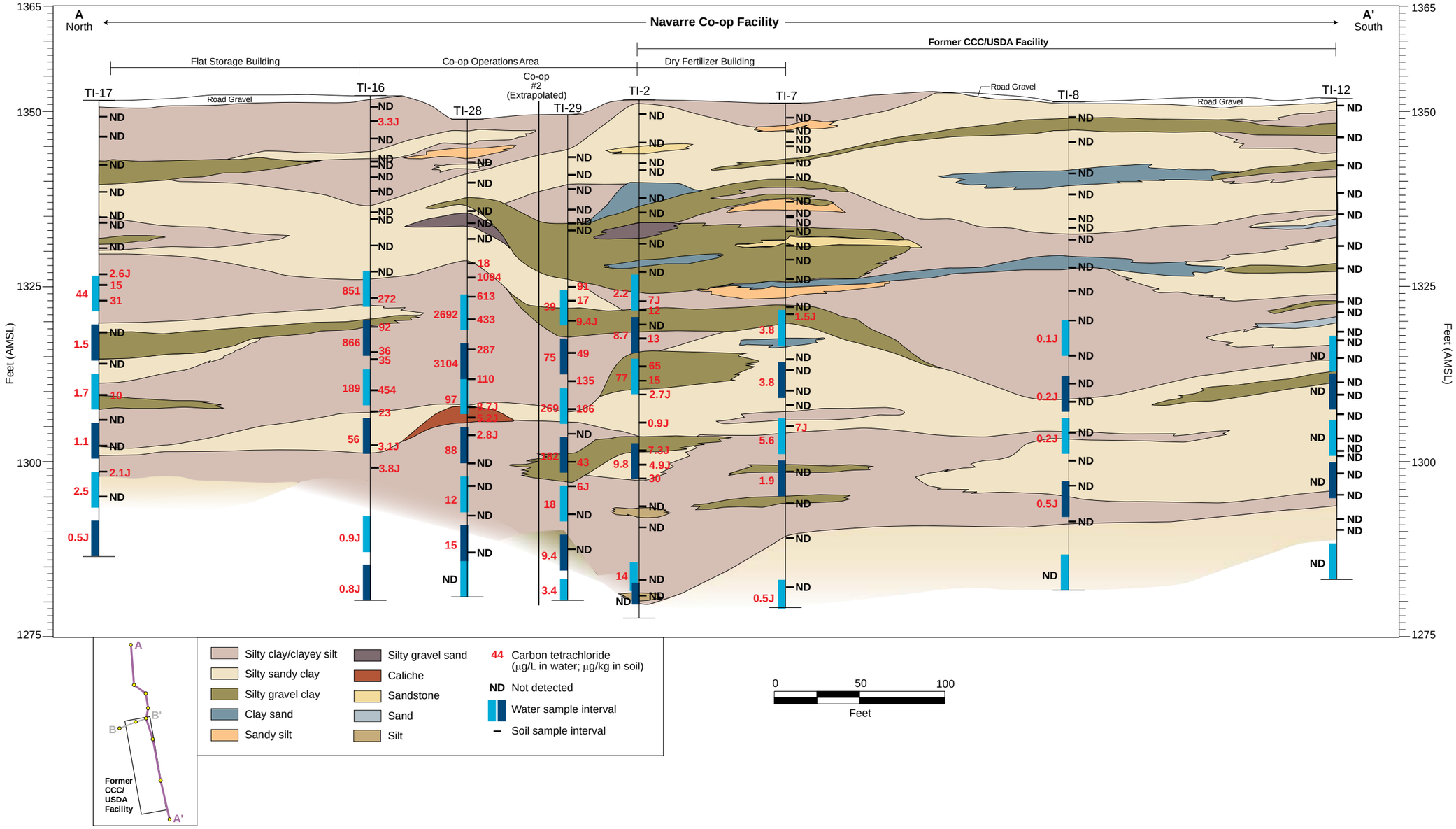


FIGURE 4.3 Hydrogeologic cross section A-A′ (vertically exaggerated), showing the vertical and lateral distribution of carbon tetrachloride in subsurface soil and groundwater.

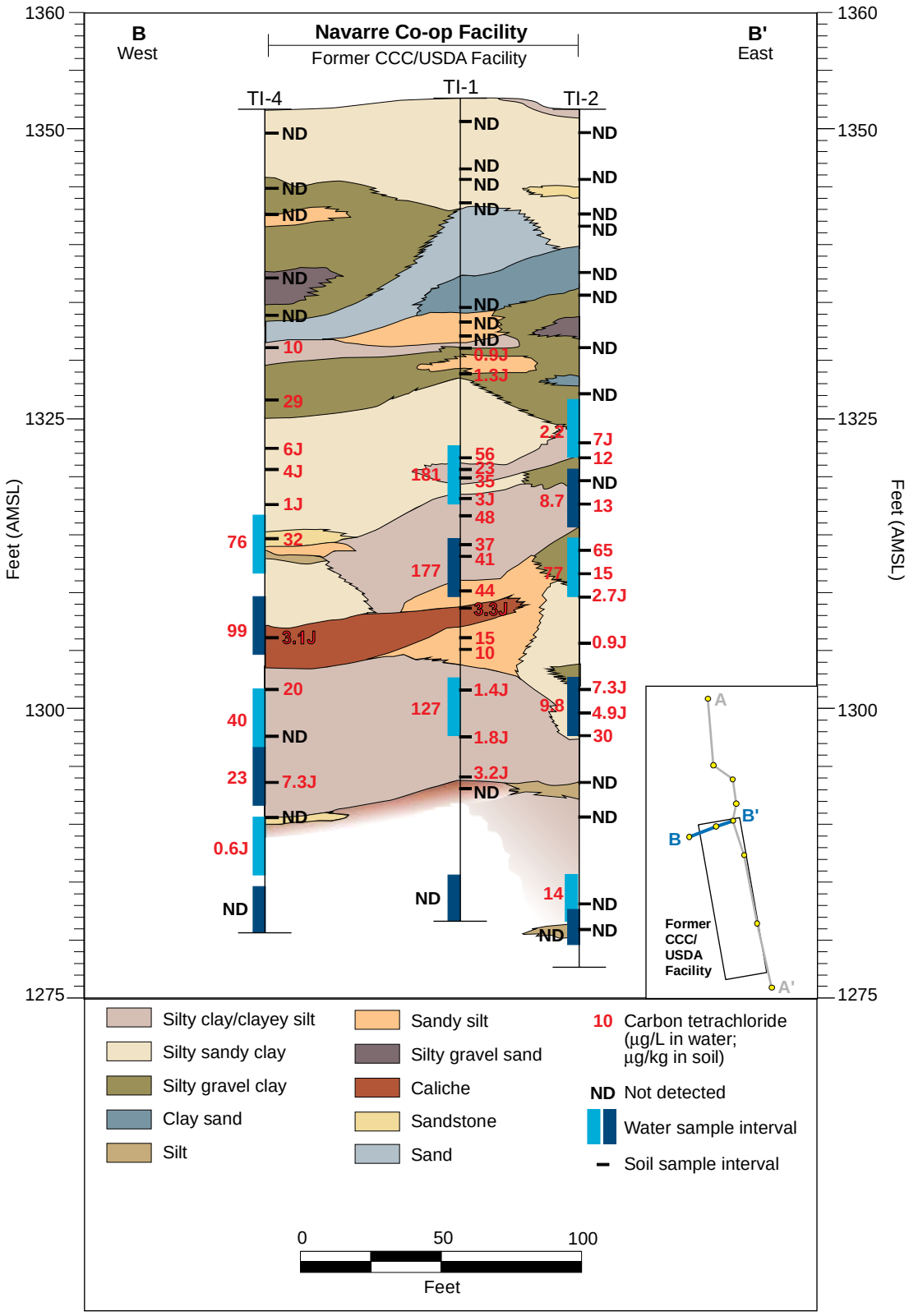


FIGURE 4.4 Hydrogeologic cross section B-B′ (vertically exaggerated), showing the vertical and lateral distribution of carbon tetrachloride in subsurface soil and groundwater.

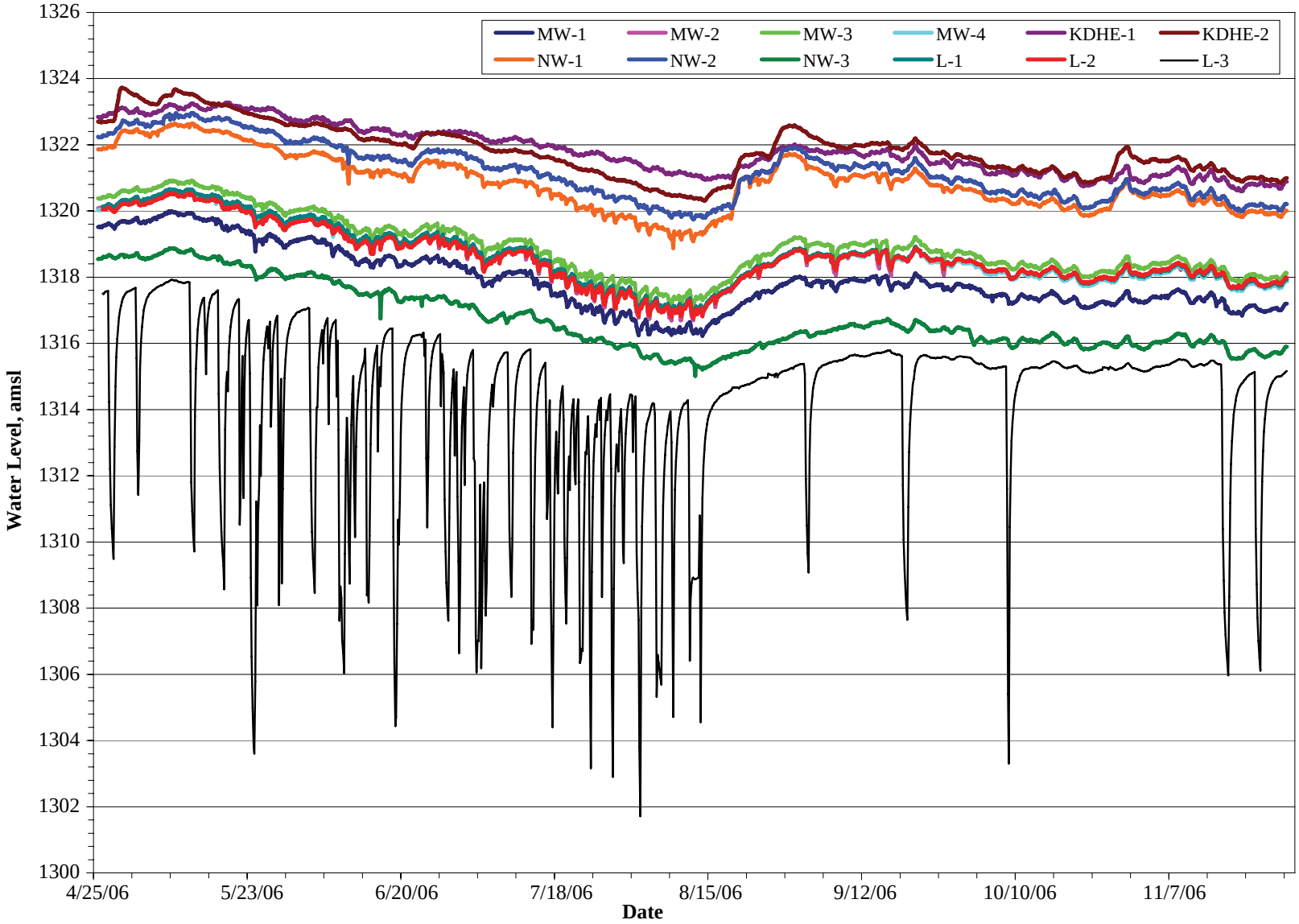


FIGURE 4.5 Hydrographs constructed from continuously monitored water levels in wells at Navarre, April 25, 2006, to November 28, 2006.

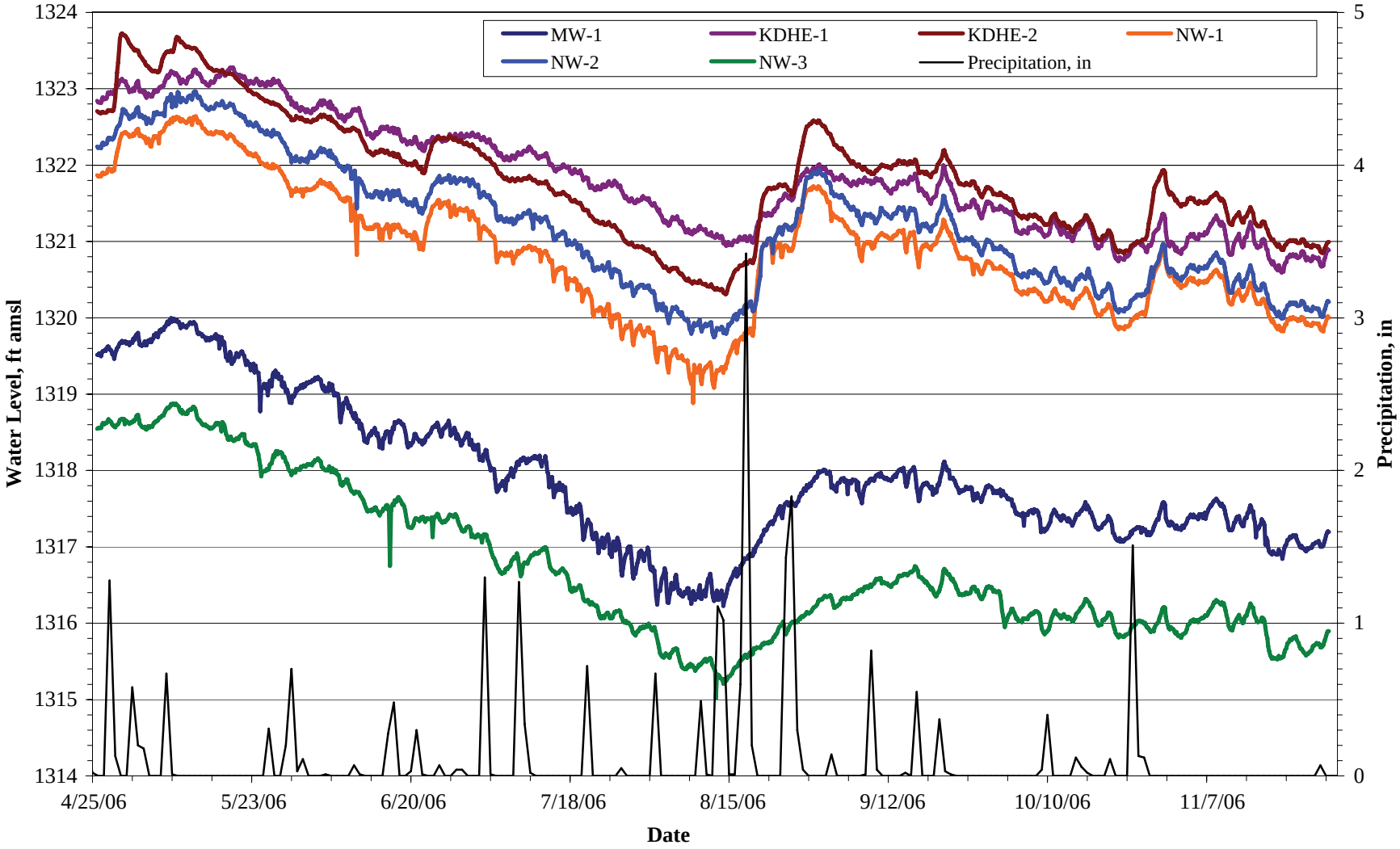


FIGURE 4.6 Hydrographs for selected monitoring wells at Navarre, with precipitation data for Manhattan, Kansas, April 25, 2006, to November 28, 2006.

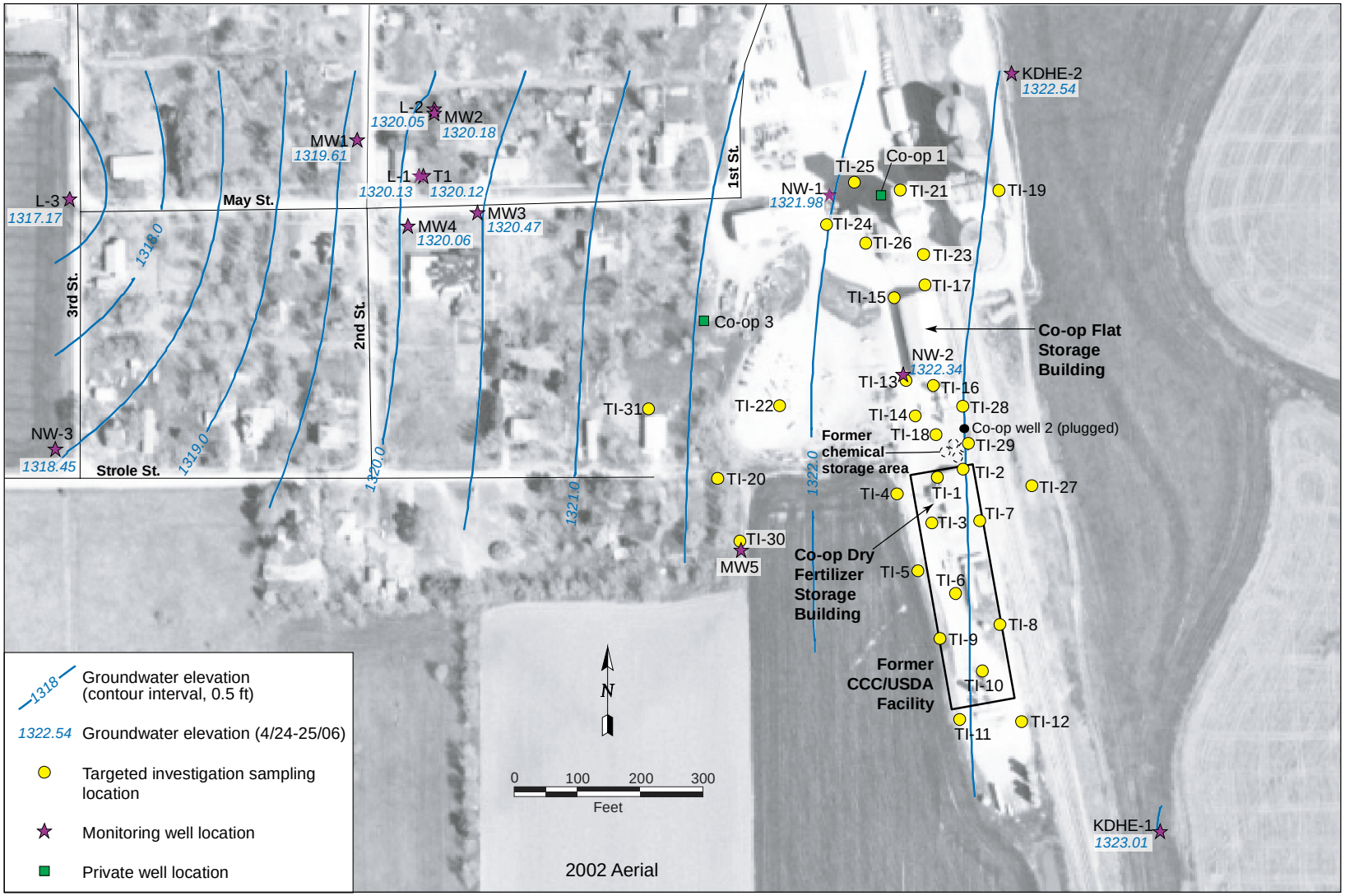


FIGURE 4.7 Potentiometric surface at Navarre, based on hand-measured water levels on April 24-25, 2006. Source of photograph: NAIP (2002).

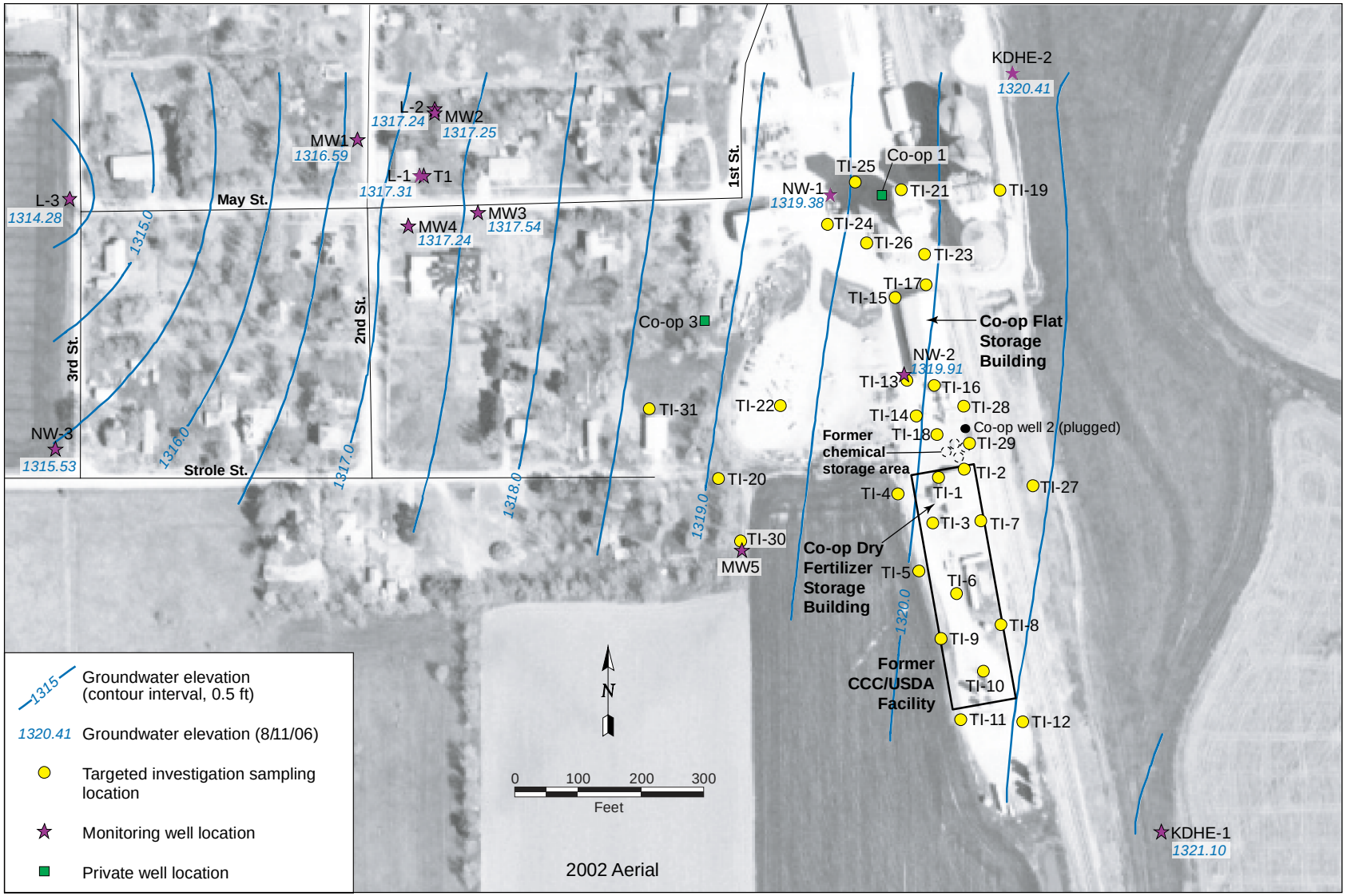


FIGURE 4.8 Potentiometric surface at Navarre, based on water levels recorded by data loggers on August 11, 2006. Source of photograph: NAIP (2002).

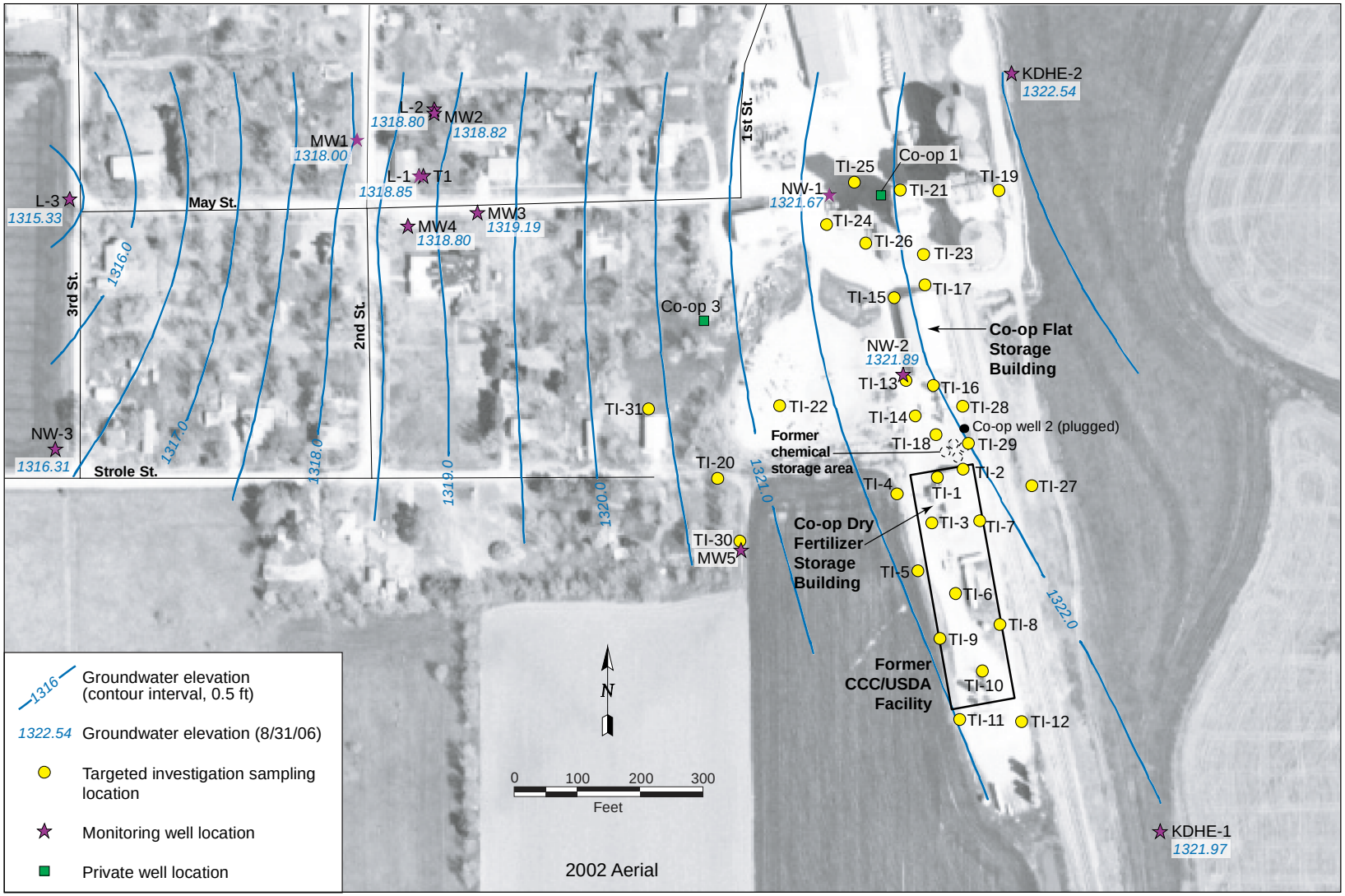


FIGURE 4.9 Potentiometric surface at Navarre, based on water levels recorded by data loggers on August 31, 2006. Source of photograph: NAIP (2002).

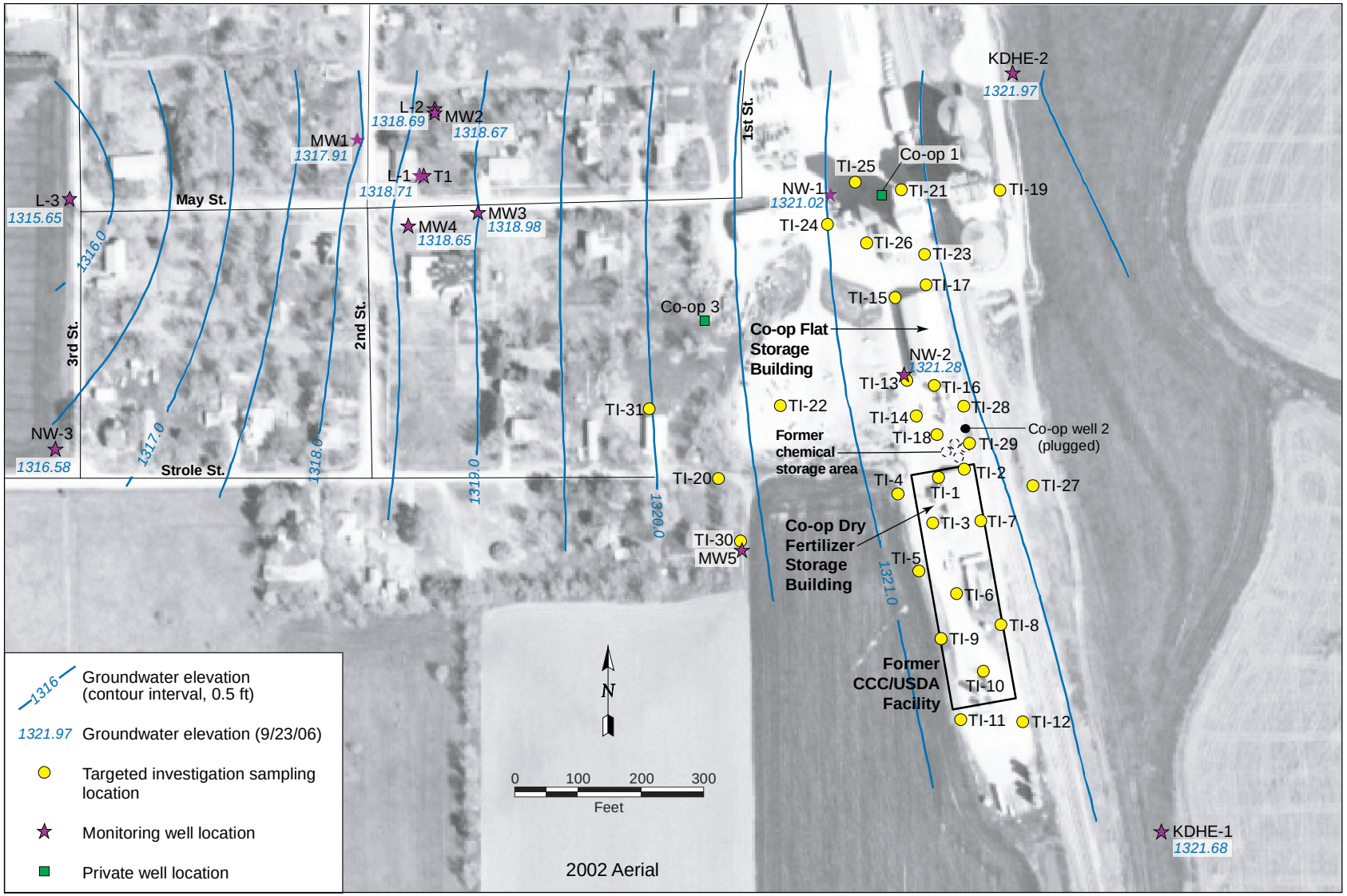


FIGURE 4.10 Potentiometric surface at Navarre, based on water levels recorded by data loggers on September 23, 2006. Source of photograph: NAIP (2002).

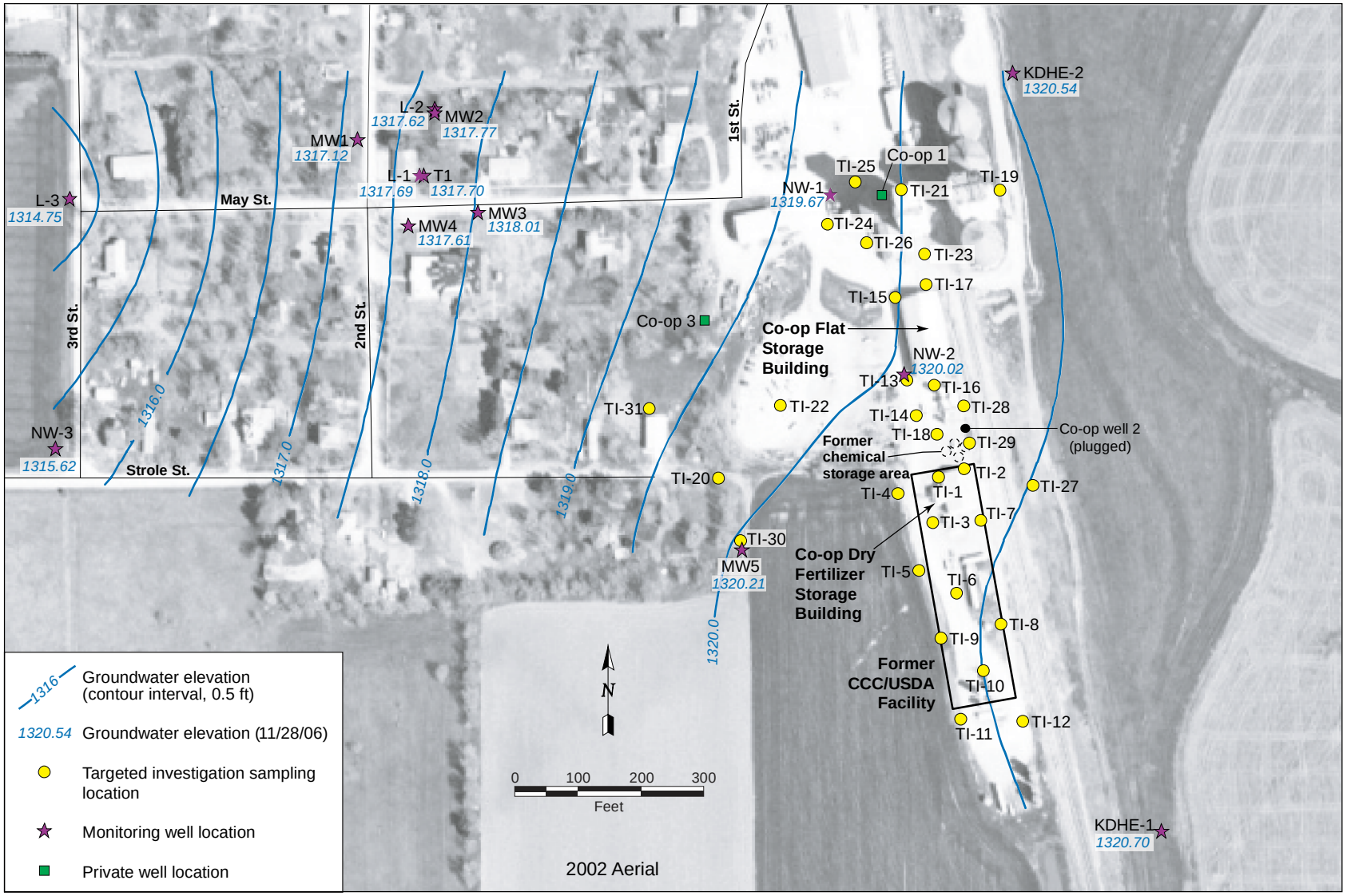


FIGURE 4.11 Potentiometric surface at Navarre, based on hand-measured water levels on November 28, 2006. Source of photograph: NAIP (2002).

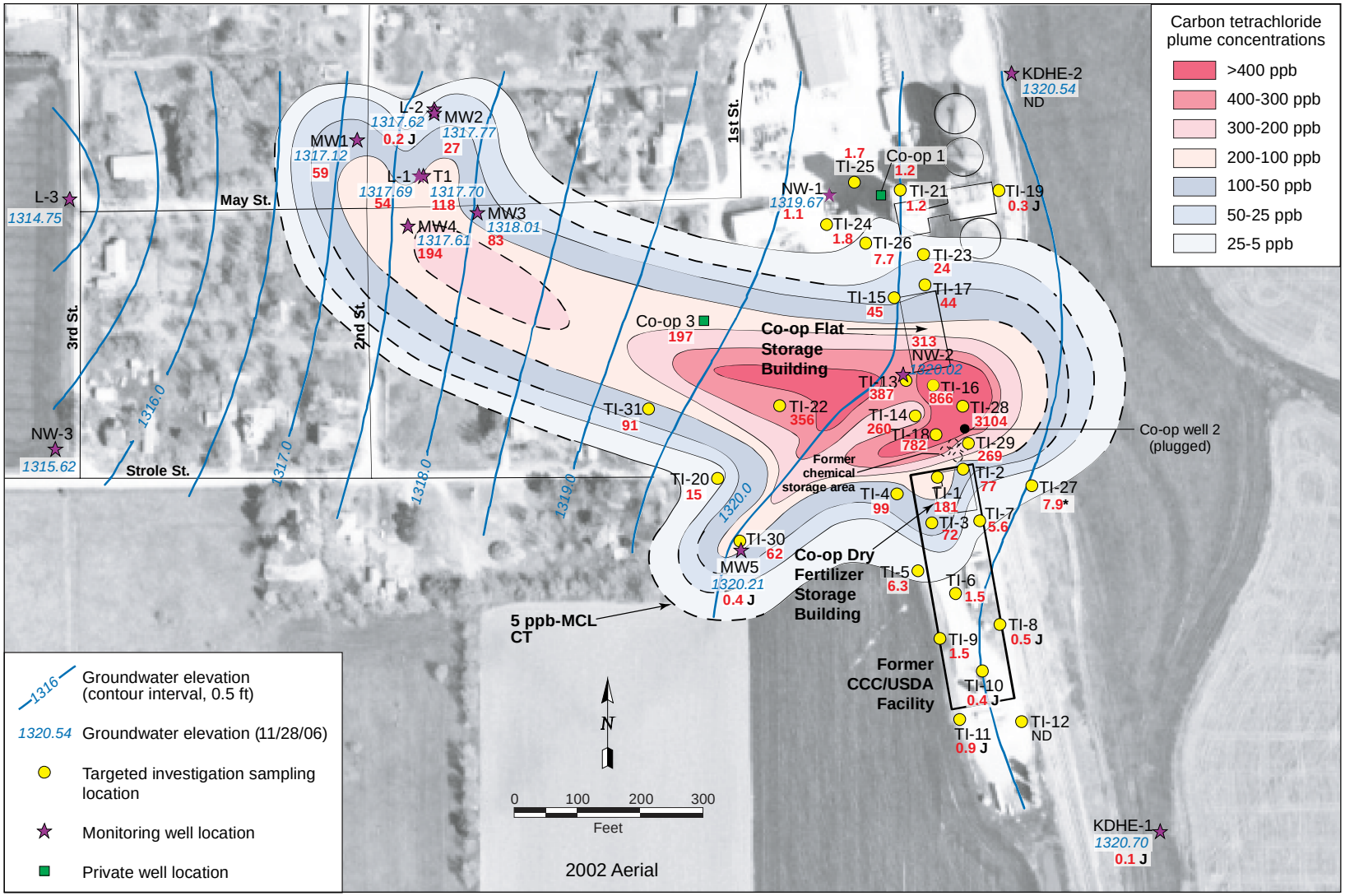


FIGURE 4.12 Interpreted distribution of carbon tetrachloride in the groundwater plume, 2006, with groundwater elevations on November 28, 2006. Source of photograph: NAIP (2002).

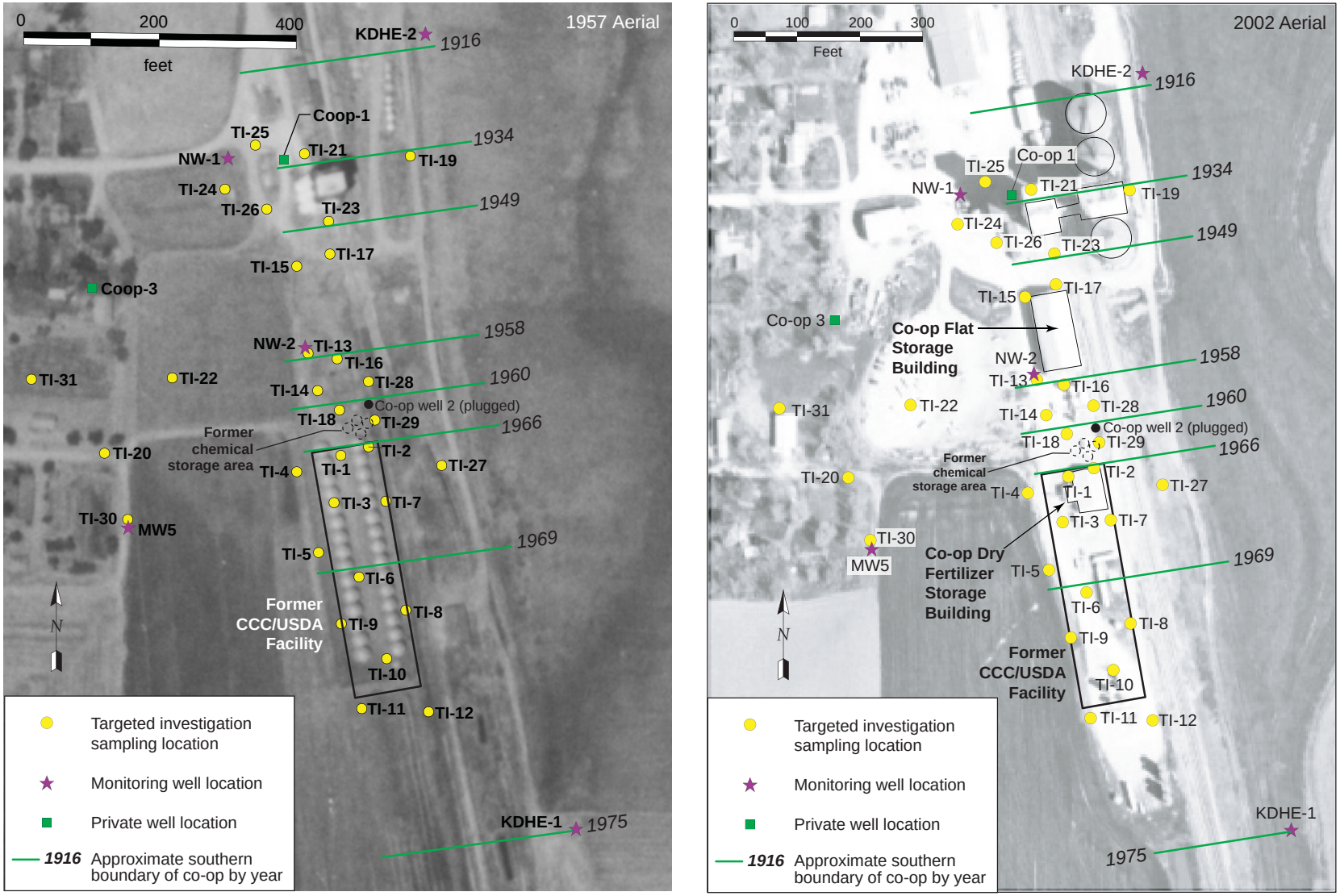


FIGURE 4.13 Locations of the former CCC/USDA facility, monitoring and private wells, and 2006 investigation activities at Navarre, with the approximate southern Co-op boundary in each year of the Co-op's southward expansion. Source of photographs: USDA (1957); NAIP (2002).

5 Conclusions

5.1 Former CCC/USDA Property

Conclusions related to the former CCC/USDA property are as follows:

- *No source areas for carbon tetrachloride were identified on the former CCC/USDA property.* Residual carbon tetrachloride contamination detected at and near the dry fertilizer building is associated with the high concentrations detected in the area of TI-28, which is near former well Co-op 2 and the former chemical storage areas on the Co-op property. Only traces to low concentrations were detected on the southern part of the former CCC/USDA property. None of the concentrations detected in the southern part of the former CCC/USDA property would indicate a nearby source.

- *No pathway for contaminant migration from surface soil to groundwater was identified at any location on the former CCC/USDA property*. This conclusion is evident from the limited soil contamination detected, the significantly lower contaminant concentrations (as compared to the Co-op property), and the contaminant distribution throughout the soil and groundwater column. This finding further indicates that the CCC/USDA is not a responsible party for the contamination detected at the source areas identified on the Co-op property.

- *One aquifer was identified during investigation activities.* Data collected during the 2006 investigation showed that groundwater was encountered continuously throughout the stratigraphic column on the former CCC/USDA property, at depths from 25 ft to 77.8 ft BGL. The only potential confining layers that could indicate separate aquifers were consolidated materials of very thin, discontinuous sandstone layers with some limestone fragments. These materials occurred at depths of 10 ft BGL at location TI-2, 25.5 ft BGL at TI-3, 18 ft and 37 ft BGL at TI-4, and 22 ft BGL at TI-7. The 2006 investigation's finding of one aquifer is contrary to previous reports, which indicated that two aquifers were present. The information in previous reports was supported by data gathered during investigations that had limited scopes of work and limited investigative techniques. New technologies, coupled with

the greater detail achieved in the 2006 investigation, enabled a more thorough study of the lithologic and hydrologic properties at Navarre.

- *The distribution of groundwater contamination on the former CCC/USDA property is predominantly limited to the upper part of the water column.* All but one groundwater sample collected from the deepest groundwater zones showed no carbon tetrachloride above the AGEM Laboratory method detection limit of 1.0 µg/L. The only sample that contained carbon tetrachloride above this limit (at 14 µg/L) was from location TI-2, at 66-70 ft BGL. This location is approximately 100 ft south from (cross-gradient of) the source area at TI-28, and the contamination detected can be attributed to migration from this source area. The observed limited vertical migration of the contamination indicates that the lower part of the aquifer on the former CCC/USDA property has not been adversely impacted, and investigation into zones that may be present at deeper depths is not warranted.

- *An active source for petroleum-related contamination exists on the southern end of the former CCC/USDA property.* Benzene was detected in groundwater samples from TI-10 and TI-11 at concentrations above the RBSL of 5.0 µg/L. Other petroleum-related compounds were also detected at these locations. These two sample locations are adjacent to active ASTs that are owned and operated by the Co-op.

- *The groundwater flow direction was determined to be west to northwest.* This finding is consistent with historical data. This flow direction, coupled with the low contaminant concentrations detected on the former CCC/USDA property (compared to concentrations detected at the source areas on the Co-op property), is not consistent with an explanation asserting that grain fumigant handling and use on the CCC/USDA property are related to or caused the contamination detected at the sources areas identified on the Co-op property.

5.2 Co-op Property Source Areas

Conclusions related to the Co-op property are as follows:

- *Two source areas were identified on the Co-op property*. One source area is associated with the former well Co-op 2 and the former chemical storage activity at and adjacent to locations TI-14, TI-18, and TI-28. The other source area is at the south door of the flat storage building, at and near locations TI-16 and TI-13. These two source areas showed the highest concentrations of carbon tetrachloride in groundwater during the 2006 investigation, far exceeding the RBSL of 5.0 µg/L for this compound. Analytical data for soil samples from TI-28 showed a high carbon tetrachloride concentration just above the water table and decreasing concentrations at depth. The contaminant distribution trends indicate that sources are present at and adjacent to TI-16 and TI-28. The presence of sources in these areas is further supported by information in the Co-op's August 31, 2004, work plan (iSi 2004), indicating that carbon tetrachloride was used on the property until the mid 1980s and was applied to grain at the flat storage building on several occasions in the 1970s.

- *Former Well Co-op 2*. This well's proximity to former chemical storage bins and chemical mixing activities makes it a likely route for contaminant migration. The well's construction date and construction details are not known; however, it was plugged on September 5, 1991 (KGS 2007). This well may have been installed by the railroad prior to the Co-op's use (Stroda 2007). Analytical data for samples taken from this well in 1991 showed a high concentration of carbon tetrachloride. Other compounds detected in these samples included chloroform, methylene chloride, tetrachloroethene, and 1,2-DCA.

- *Chloroform was detected in soil and groundwater samples on the Co-op property*. The chloroform concentrations detected in 13 groundwater samples from the Co-op property exceeded the RBSL of 80 µg/L for this compound. The concentrations detected showed trends similar to the carbon tetrachloride contaminant distribution. The high ratio of chloroform to carbon tetrachloride indicates that natural degradation is occurring.

- *Methylene chloride was detected on the Co-op property at concentrations above the RBSL of 5.0 µg/L for this compound in groundwater*. Methylene

chloride was detected at TI-13, TI-14, TI-16, TI-18, TI-22, TI-28, and TI-29. This compound is a degradation product of carbon tetrachloride and is also used as a solvent. The presence of methylene chloride indicates that natural degradation of carbon tetrachloride (and chloroform) is occurring.

- *Tetrachloroethene was detected in groundwater samples collected at eight locations on the Co-op property.* Trace to low levels of tetrachloroethene were detected at the source areas and at downgradient locations on the Co-op property. The highest concentration (3.1 µg/L) was detected at the source area identified at TI-28. The detection of tetrachloroethene at TI-28, with lower concentrations at downgradient and cross-gradient locations, further indicates a source at location TI-28. The tetrachloroethene contaminant plume mimics the carbon tetrachloride plume. This compound is not associated with CCC/USDA operations.

- *Water from private well Co-op 3, which is contaminated with carbon tetrachloride at a concentration above the MCL and RBSL, was observed both being used for bulk chemical mixing and being discharged onto the ground surface near the source areas.* The Co-op has, throughout its history, washed equipment and mixed bulk chemicals at the active chemical storage area adjacent to the source areas at TI-16 and TI-28 and former well Co-op 2. During the 2006 investigation, water from well Co-op 3 was observed to be draining into a concrete basin and onto the gravel surrounding the chemical storage tanks. Discharging water contaminated with carbon tetrachloride and other VOCs at concentrations above the regulatory limits onto the ground surface exacerbates the contamination problem and is a violation of Kansas discharge law.

- *Only trace to low levels of carbon tetrachloride were detected at the feed mill.* The carbon tetrachloride detected at the feed mill is not a source for the contamination detected at the source areas identified near the south door of the flat storage building and adjacent to and near former well Co-op 2 and the former chemical storage area.

5.3 Status of the Contaminant Plume in the General Investigation Area

Conclusions related to the status of the contaminant plume are as follows:

- *The carbon tetrachloride groundwater contaminant plume is generally widespread*, as indicated by groundwater analytical data for sampled wells in the general investigation area. The concentrations detected in 2006 were generally lower than those reported for previous sampling events. This decline indicates that the plume continues to become degraded and diluted over time.

- *Points of origin for the contamination detected in the general investigation area were found on the Co-op property.* The points of origin on the Co-op property are the area at and near the southern door of the flat storage building, former well Co-op 2, and the former and active chemical storage areas. The analytical data collected at TI-16 and TI-28 and at adjacent locations indicate that the TI-16 and TI-28 areas are likely at or adjacent to the points of origin for the contamination detected in the general investigation area.

- *The contaminant plume appears to be migrating west to northwest*, as evidenced by groundwater flow and contaminant concentration data collected during the 2006 investigation.

- *One aquifer is present throughout the general investigation area.* Lithologic data and water level data collected during the investigation showed the effects of a nearby pumping well. Drawdown during pumping was observed in both shallow and deep wells. These findings indicate that only one aquifer is present, contrary to previous reports.

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Appendix A:

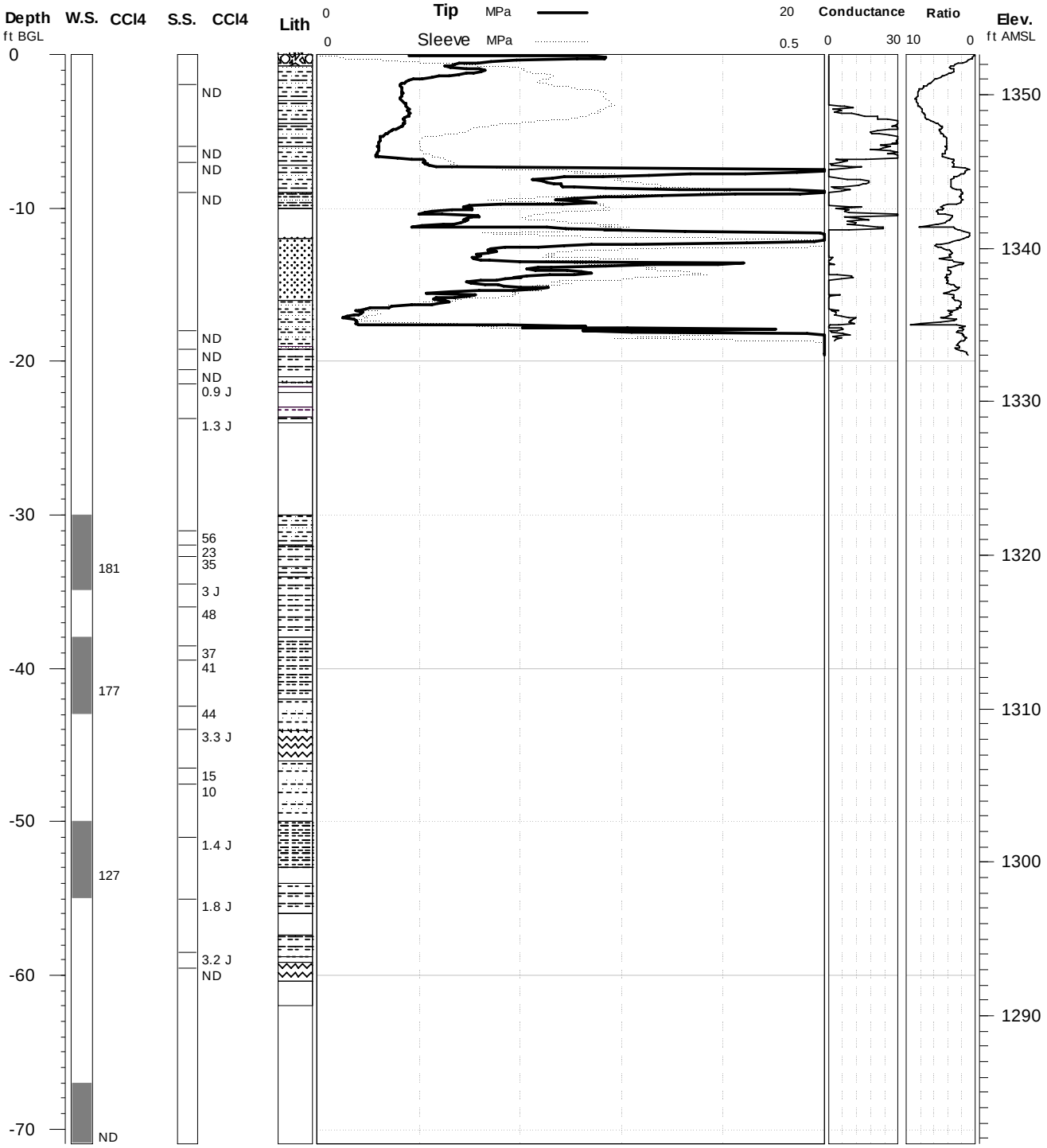
Electronic and Lithologic Logs

Argonne National Laboratory

Boring ID: NATI-1

Project: Navarre **Elevation:** 1352.62 ft.

Geologist: Lorraine LaFreniere/Lisa Larsen **Depth:** 71 ft. BGL **Log Date:** 4/5/2006



Carbon tetrachloride in w ater sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-1

Project: Navarre

Elevation: 1352.62 ft.

Geologist: Lorraine LaFreniere/Lisa Larsen

Depth: 71 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL: Road, intermixed with silty clay.	
						CLAY, SILTY WITH SAND: Trace sand, brown (7.5YR), evidence of roots, dense, stiff.	
				ND			1350
						CLAY, SILTY WITH SAND: Trace fine sand with occasional coarse grain present, brown (7.5YR).	
-5						CLAY, SILT AND SAND: Yellow-brown (7.5YR), evidence of oxidation throughout, fine sand, coarse silt increases with depth.	
				ND		CLAY, SILTY WITH SAND: Abundant silt, yellow-brown (7.5YR), trace limestone fragment, subrounded, some sand, white calcareous inclusions.	
				ND			
						SILT, CLAYEY WITH SAND: Brown-yellow (7.5YR), increase in sand with depth, fine with coarse grains, scattered, oxidized.	1345
				ND		SAND, SILTY WITH CLAY: Yellow-brown (7.5YR), coarse silt, medium sand, some clay matrix, oxidation evident, slightly calcareous, occasional calcite crystals.	
-10						NO RECOVERY	
						SAND: Slightly cemented, pale yellow (5Y), trace roots, oxidized, trace calcite from 14-16 ft., platy.	1340
-15							
						SAND, CLAYEY: Poorly cemented, olive (2.5Y), calcite evident.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-1 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
							1335
				ND			
				ND		SILT AND SAND: Coarse silt to fine sand - partially indurated, calcareous cement, overall highly calcareous, very pale brown (10YR). Damp.	
-20						CLAY, SILTY: Pale yellow (2.5Y), some oxidation present, calcareous.	
				ND			
						CLAY, SILTY: Moist, very plastic, silty, calcareous, light brownish-gray (2.5Y).	
				0.9 J		CLAY, SILT AND GRAVEL: Granular gravel and minor very coarse sand. Highly calcareous, mottled in appearance, clays brown (7.5YR) and light brown (7.5YR). Damp.	
						SILT AND SAND: Abrupt contact with above. Highly calcareous, partially indurated silt/minor fine and medium sand and angular limestone fragments (granular gravel), white (2.5Y). Damp to moist.	1330
						NO RECOVERY	
				1.3 J		SILT AND SAND: Oxidized, coarse silt to fine sand, very well sorted, dry, yellowish-brown (10YR).	
						CLAY, SILTY WITH SAND: Abrupt contact with underlying clay, silty with minor trace sand - fine, slightly damp, oxidized, yellowish-brown (10YR).	
-25						NO RECOVERY	
							1325
-30						CLAY, SILTY WITH SAND: Trace fine sand, light yellow brown (2.5Y), platy structure, sand is slightly cemented.	
				56			
				23		CLAY, SILTY: Pale yellow (2.5Y), fossil material evident, small crystals, platy, some oxidation evident.	
		181		35			1320
						CLAY, SILTY WITH SAND: Coarse silt with trace very fine sand, white (5Y), calcareous, weathered calcite nodules possible.	
				3 J		CLAY, SILTY: Coarse, light gray (5Y), occasional shale fragment and weathered calcite nodules.	
-35							
				48			

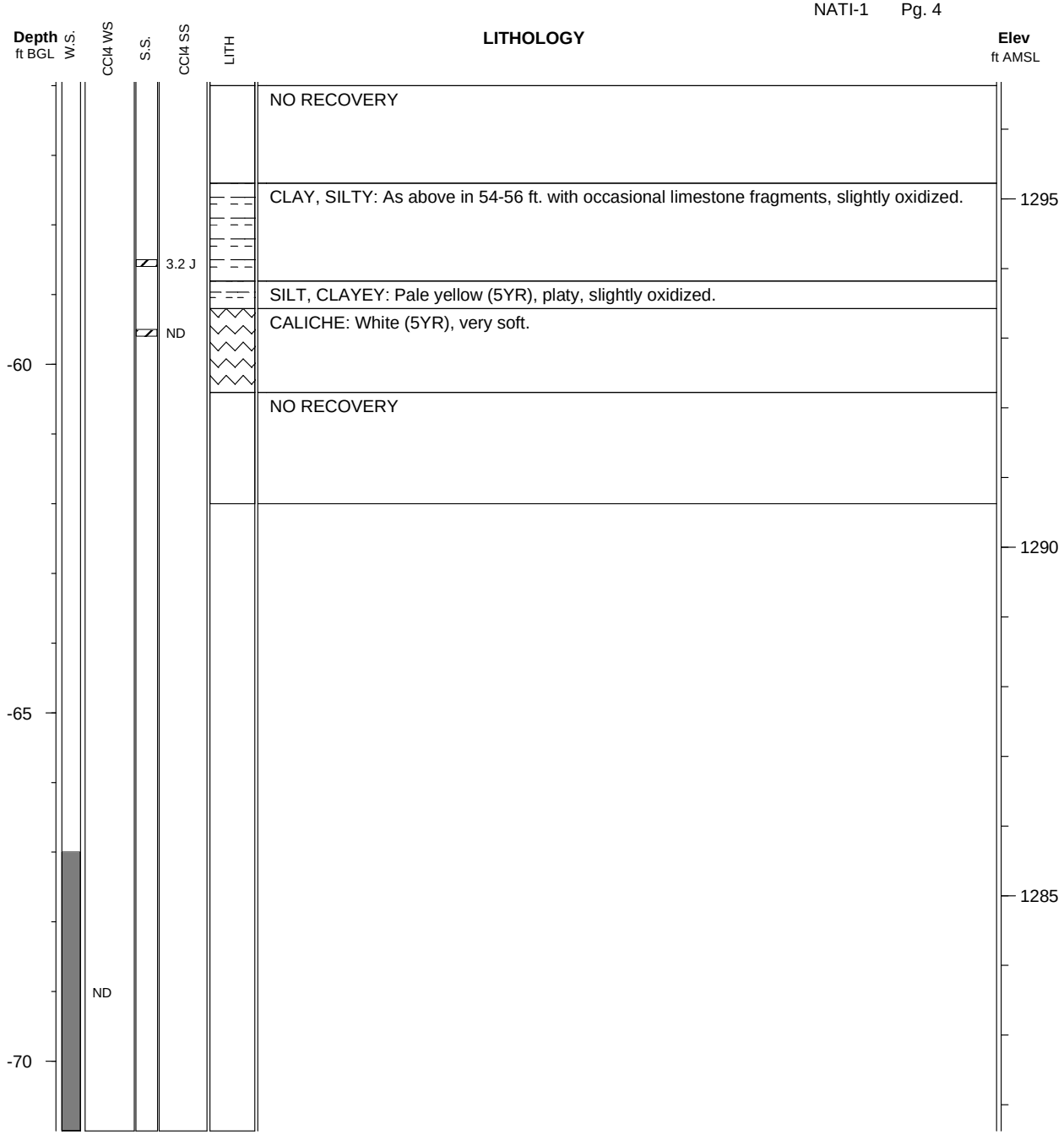
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-1 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
							1315
						SILT, CLAYEY: Trace clay, yellow (2.5Y), oxidized, platy.	
				37			
				41			
-40							
		177					
						SAND, SILTY: Loose with trace coarse silt, pale olive (5Y).	
				44			1310
				3.3 J			
						CALICHE: White (5Y), very soft, no obvious structure, trace fine sand.	
-45							
						SAND, SILTY: Very fine with trace coarse silt, light gray (5Y), slight lamination.	
				15			
				10			1305
-50							
						SILT WITH CLAY: Trace clay, light olive gray (5Y), platy.	
				1.4 J			
		127					1300
						NO RECOVERY	
						CLAY, SILTY: Trace silt, olive (5Y), trace calcite throughout, platy.	
-55				1.8 J			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-1 Pg. 4



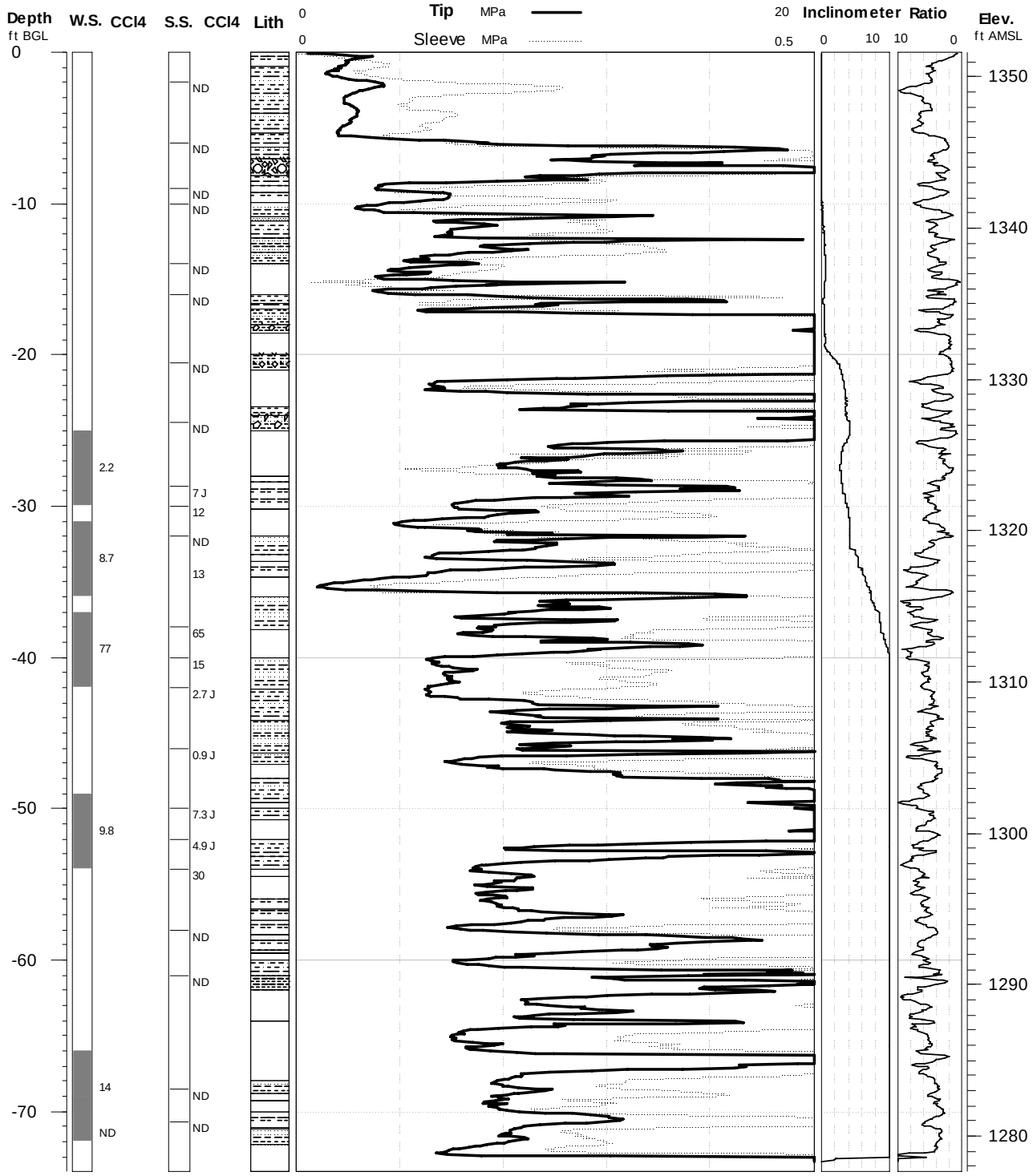
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-2

Project: Navarre **Elevation:** 1351.64 ft.

Geologist: Lorraine LaFreniere **Depth:** 74 ft. BGL **Log Date:** 4/5/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-2

Project: Navarre

Elevation: 1351.64 ft.

Geologist: Lorraine LaFreniere

Depth: 74 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						SILTY CLAY: Disturbed silty clay and road gravel.	
						CLAY, SILTY WITH SAND: Very silty with minor medium grained sand scattered throughout. Damp. Brown (7.5YR).	1350
				ND			
						CLAY, SILTY WITH SAND: Non-calcareous, selectively oxidized in siltier areas. Trace of lenses of fine to very coarse sand (sub-rounded) of variable lithology - quartz dominated in a light gray to white weathered, highly calcareous matrix. Damp. Dark brown (7.5YR).	
-5							
						SILT, CLAYEY WITH SAND: Abrupt color change - sharp contact to brownish-yellow (7.5YR), very silty clay, becoming increasingly silty with depth, interspersed with poorly defined zone of sandy silt in a clay matrix. Sand very fine to very occasionally medium grained. Damp. Limestone cobble - rounded (1.2 cm length) at 5.8'. Matrix clays are non-calcareous. Sandy silt zones highly calcareous. Limestone cobbles throughout sequence increasing in frequency with depth.	
				ND			
						SILT, CLAYEY WITH SAND: Very silty clay matrix with sand. Brownish-yellow (7.5YR). Clay - plastic, silty, fairly stiff, brownish-yellow (10YR) with fine grained sandy partings.	1345
						GRAVEL: "Rubble zone" with cobbles (calcareous cemented sandstone) throughout increasing in frequency with depth. Highly calcareous, rounded to sub-rounded to 2.5" in length. Dry to slightly damp, vuggular solution porosity.	
						SILT, CLAYEY WITH SAND: Sand fine to very coarse grained, poorly sorted angular to sub-angular, mixed lithology occurring in lenses throughout. Sandy lenses highly calcareous, clay - non-calcareous. Damp. Brownish-yellow (10YR).	
				ND		CLAY, SILTY: Damp, yellowish-brown (10YR), slightly calcareous.	
						SILTY CLAY: Faintly laminated, silty clays, calcareous, alternating thin yellowish-brown (10YR) and light brownish-gray (10YR), non-calcareous. Damp.	
-10				ND		SILT, CLAY, AND SAND: Fairly stiff with lenses and partings of fine sand, manganese staining, highly calcareous, yellowish-brown (10YR). Damp.	
						SANDSTONE: Sandy rubble zone - sandstone - calcium carbonate cemented yellowish-brown (10YR), damp. Sand fine to coarse grained, angular to sub-angular, highly calcareous.	
						SILT, CLAYEY WITH SAND: Dense, hard, stiff, silty clay with manganese partings, minor sand lenses, light yellowish-brown (2.5Y), calcareous.	1340
						SAND AND CLAY: Platy texture, sand in lenses and partings, slightly calcareous, light yellowish-brown (2.5Y), fine sand.	
						CLAYEY SAND: Light yellowish-brown (2.5Y), calcareous, poorly sorted fine to very coarse sand, sub-angular. Damp to dry.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-2 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND		NO RECOVERY	
-15							
				ND		CLAY, SANDY: With sharp, angular cobbles of light gray crystalline limestone. Sand, fine to medium grained and poorly sorted, sub-rounded, calcareous matrix clays. Damp. Light yellowish-brown (2.5Y).	1335
						CLAY, SILTY WITH SAND: Marked increase in clay content, moist, plastic clay, silty with sand, light yellowish-brown (2.5Y), calcareous, minor limestone granular gravel.	
						CLAYEY SAND: Limestone fragments (sub-angular), calcareous, damp, friable sand lenses, light yellowish-brown (2.5Y).	
						SAND, SILT, AND GRAVEL: Dry, friable sand, silty and limestone granular gravel. Sand is very fine to medium grained, highly calcareous, light yellowish-brown (2.5Y).	
						NO RECOVERY: Probably as described above.	
-20							
				ND		SILT, SAND, AND GRAVEL: Dry, calcified zone,silty sand with limestone, gravel (sub-angular). Sand predominantly fine grained, weathered. White to very pale brown (10YR).	
						NO RECOVERY	1330
						SAND, CLAYEY: Light yellowish-brown (2.5Y), dry, highly calcareous sand, clayey and partially indurated. Sand fine to coarse grained, sub-rounded to sub-angular.	
				ND		SILT, SAND, CLAY & GRAVEL: Sand lenses and limestone pebbles and granules. Basal part of unit calcareous with cemented cobbles of sandstone, white weathering in part. Dry. Light yellowish-brown (2.5Y).	
-25							
						NO RECOVERY	1325
		2.2					
						SILTY CLAY: Slightly wet, plastic, silty clay, trace limestone pebbles. Light olive-brown (2.5Y).	
				7 J		CLAY, SILTY: Thin partings of oxidized silty, clay-slightly calcareous,silty partings, highly calcareous. Also tiny inclusions of oxidized silt-highly calcareous. Light brownish-gray (2.5Y).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-2 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
-30				12			
						NO RECOVERY	1320
				ND		CLAY, SILTY WITH SAND & GRAVEL: Very silty, faintly laminated - moist - layered with silt with minor sand grains and granular gravel. Light brownish-gray (10YR). Faintly calcareous.	
		8.7				SILTY CLAY: Marked increase in clay content, silty clay, damp, brown (10YR), moderately calcareous.	
				13		CLAYEY SILT: Highly calcareous, clayey silt to silty clay, faint laminate of highly calcareous cement and sandstone, calcareous, white weathered cement, light yellowish-brown (10YR). Damp.	
-35						NO RECOVERY	
				65		CLAY, SILTY WITH SAND & GRAVEL: Very silty with gravel - crumbly in texture, fine grained sand lenses throughout, gravel (trace to 0.75"), variable clay content, calcareous, light yellowish-brown (2.5Y). Damp.	1315
		77				NO RECOVERY	
-40				15		CLAY, SILTY WITH SAND & GRAVEL: Same description as interval 36'-38' described above - this core. Increase in evidence of oxidation with depth. Damp.	1310
				2.7 J		CLAY, SILTY WITH SAND: Hard, dense, non-plastic matrix clays, non-calcareous with minor small fine oxidized, highly calcareous sand inclusions.	
						SILT, CLAY, AND SAND: Abrupt change in color and lithology. Damp, partially indurated silt	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-2 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						with clay inclusions (moist and very plastic). Overall crumbly texture. Minor fine sand in inclusions, calcareous throughout. Light gray (2.5Y).	
-45							
				0.9 J			
						SILT, CLAY, AND SAND: As described above with marked increase in clay content. Damp. Hard, stiff clay, silty, faint silt laminae with trace sand, (fine grained) inclusions. Highly calcareous, light brownish-gray (2.5Y).	1305
						NO RECOVERY	
						CLAY, SILTY WITH SAND: Dry - "Rubble zone", consisting of broken up pieces of silty clay and weathered sandstone fragments, all highly calcareous in nature. Light gray (2.5Y).	
						NO RECOVERY	
-50				7.3 J			
						CLAY, SILTY WITH SAND: Dense, hard, faintly laminated with thin layers of white fine grained sand, in clay matrix. Dense, hard, dry to damp, non-plastic, laminated, gray (2.5Y), clay and white sand laminae in yellowish-brown silty clay, variable degrees of calcareous content.	
		9.8				NO RECOVERY	1300
				4.9 J			
						CLAY, SILTY WITH SAND: Change in color to light yellowish-brown (10YR). Clay, very silty, crumbly texture, coarse silt to very fine sand - oxidized preferentialy.	
						CLAY, SILTY WITH SAND: As above with marked decrease in silt content. Silty clay, hard, non-plastic, damp. Basal zone 0.3 feet, highly laminated (varved) with numerous thin layers of fine silt - (light gray to white) in oxidized (strong brown (7.5YR) and gray (7.5YR)) clay matrix. Large scale laminations throughout unit, faintly calcareous to non-calcareous.	
				30			
						SLOUGH: No description.	
-55						NO RECOVERY	
						SILTY CLAY: Hard, dense, non-plastic, damp. minor evidence of varves defined by thin silt layers. Weakly calcareous matrix with calcareous stringers, light yellowish-brown (2.5Y).	
						SILTY CLAY: Very silty clay, grayish-brown (2.5Y), damp to moist, variably calcareous, trace inclusions of coarse silt to fine sand.	1295
						CLAY, SILTY: With oxidized fine silt laminae increasing in occurance with depth. Clay, dense, hard, non-plastic, calcareous, light brownish-gray (2.5Y).	
				ND			
						SILTY CLAY: Highly laminated (varved) silty clay with oxidized fine silt laminae, very well defined. Generally non-calcareous, light yellowish-brown (2.5Y), fine clay laminae alternating with, silt laminae, light yellowish-brown (2.5Y).	
						SILTY CLAY: Dense, hard, silty clay - laminated in part - color change from above, matrix clay same, grayish-brown (2.5Y) with light gray silt laminae (2.5Y). No oxidation present, calcareous, dry to damp.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-2 Pg. 5

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
-60						SILT: Grayish-brown (2.5Y). Dry.	
						NO RECOVERY	
						CLAY, SILTY WITH SAND: Light browish-gray (2.5Y) clay, silty with sand, calcite veining and inclusions in calcareous clay matrix. Sand grains scattered throughout fine to coarse grained in clay matrix and in inclusions throughout the zone.	
				ND		CLAY AND SILT: Abrupt contact. Dense, hard, almost cherty - angular fragments, very fine silt. White (2.5Y). Dry to slightly damp.	1290
						NO RECOVERY	
-65						NO RECOVERY	1285
		14					
				ND		SILT, SANDY WITH CLAY: Very coarse grained silt to fine sand in clay matrix - crumbly texture - damp, highly calcareous. Dark brown (2.5Y).	
						SILTY CLAY: Fine silt occuring in faint laminations. Fine sand inclusions. Matrix non-calcareous. Laminae - silt, highly calcareous.	
						NO RECOVERY	
-70		ND		ND		SILTY CLAY: Moist to wet zone - lithology as described above except plastic and non-calcareous. Increase in silt content, generally grayish-brown (2.5Y).	
						SILT: Transition - laminated with fine silt, silt inclusion - highly calcareous.	
						SILT, SANDY WITH CLAY: Minor clay, highly calcareous. Pale yellow (2.5Y), dry to slightly damp.	1280
						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Project: Navarre

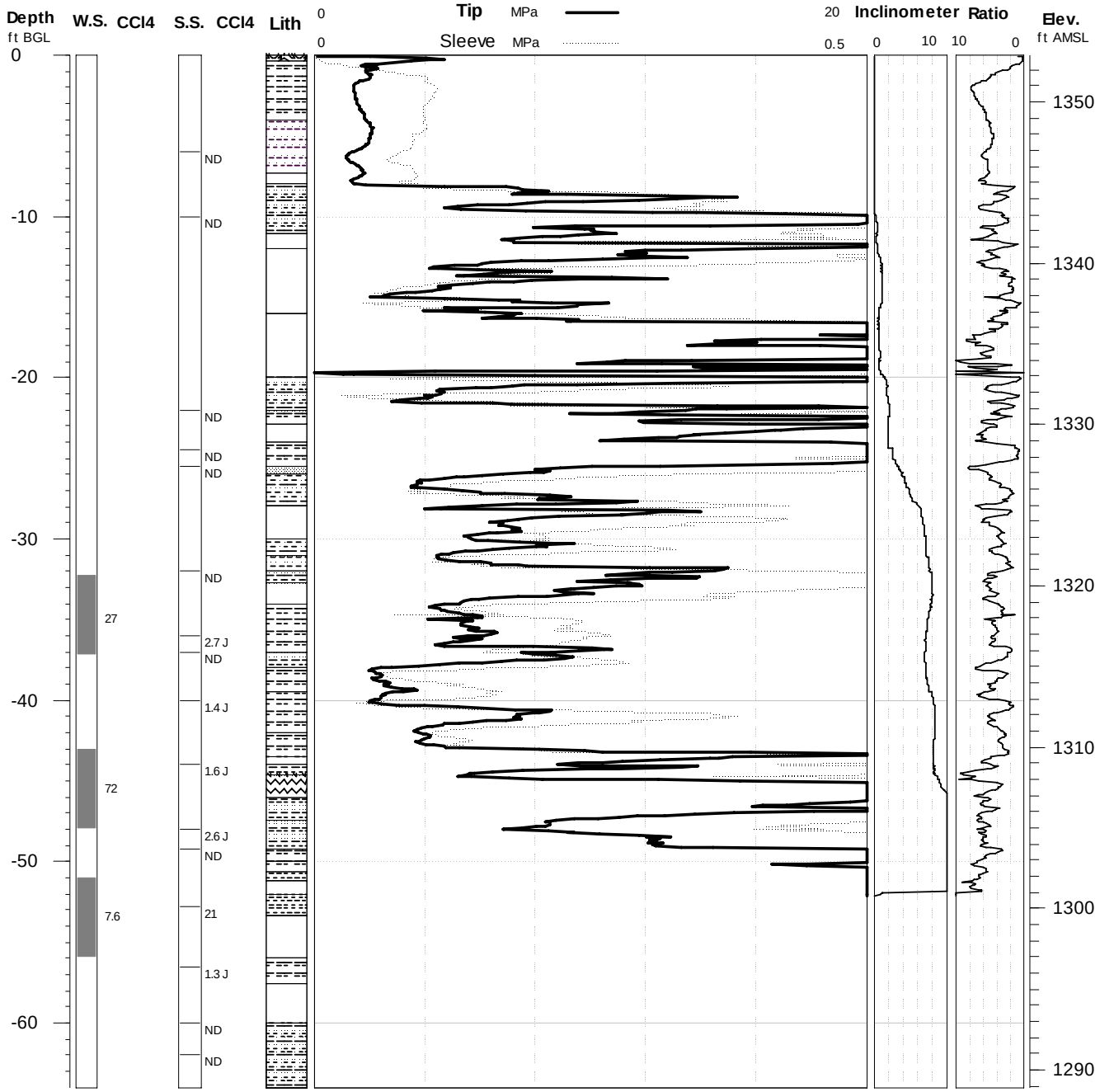
Geologist: Lisa Larsen

Elevation: 1352.92 ft.

Depth: 64 ft. BGL

Boring ID: NATI-3

Log Date: 4/5/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-3

Project: Navarre

Elevation: 1352.92 ft.

Geologist: Lisa Larsen

Depth: 64 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL: Road gravel	
						SILTY CLAY: Increasingly stiff with depth, non-calcareous, blocky, dark grayish-brown (10YR).	1350
-5				ND		SILT AND SAND: Coarse silt with abundant sand and sand clasts, cemented, highly calcareous, sand content increases with depth, oxidized, sand is medium-coarse, poorly sorted, sub-angular, light yellowish-brown (2.5Y), slightly moist, clay content increases with depth.	
						NO RECOVERY	1345
-10				ND		CLAYEY SILT WITH SAND: Fine sand, sandstone frags, poorly sorted, black staining, iron nodules/staining, light yellowish-brown (2.5Y) with gray (5YR) clay matrix, moist, calcareous, trace limestone fragments from 10-11 ft. in depth, color is gray-gray brown (7.5YR).	
						NO RECOVERY	
						NO RECOVERY	1340
-15							
						NO RECOVERY	1335
-20							

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-3 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
-20						CLAYEY SILT WITH SAND: Abundant sand, laminated, carbonate lenses, sandstone fragments (up to 1"), lamination is irregular - deformed, sand is fine, slightly moist, light yellowish-brown (2.5Y), loose.	
				ND		SILTY CLAY: Trace fine sand, calcite crystals and thin lenses throughout, iron staining, calcareous, light yellowish - light olive-brown (2.5Y), moist, stiff.	
						NO RECOVERY	1330
				ND		SILTY CLAY: Trace fine to medium sand, iron staining, calcareous, stiff, light yellowish-brown (2.5Y), calcareous, moist, oxidized.	
-25							
				ND		SANDSTONE: Pale yellow (2.5Y) weathering white, fragmented, calcite crystals, poorly cemented.	
						SILT, CLAYEY & SANDY: Fine sand, irregular laminations, oxidized, varigated color, olive-brown to light olive-brown to pale yellow (2.5Y), moist, stiff, silt content increases with depth	
						NO RECOVERY	1325
-30						SILT, CLAYEY WITH SAND: Fine to medium sand, oxidized, calcareous, with vuggular porosity in upper 6", clay content increases with depth, light olive-brown (2.5Y), moist, sandstone fragments in lower zone.	
						SANDY SILT: Very fine silt with trace clay, slightly calcareous in upper 6", non-calcareous 31.5'-32', thin sandstone lense (0.5") near base, varigated just above sandstone lense, moist, slightly stiff, pale yellow (2.5Y).	
				ND		SAND, SILT, AND CLAY: Abundant clay, very fine sand, varved, light yellowish-brown (2.5Y), varigated color, thin fine sand lenses, moist.	
						NO RECOVERY	1320
-35		27		2.7 J		SILTY CLAY: Very soft, coarse limestone fragments, clay nodules, saturated, calcareous, light olive-brown (2.5Y).	
				ND		SILT, CLAY, AND SAND: Fine sand, iron staining, thin sandstone layers, (1/4") moist, light olive-brown (2.5Y), very stiff, non-calcareous.	
						SILTY CLAY: Iron staining, non-calcareous, light olive-brown (2.5Y), slightly stiff.	1315
-40				1.4 J		SILTY CLAY: As above, slightly calcareous, loose, increase in silt.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-3 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILTY CLAY: As above, color change, light olive gray (5YR), sandstone fragments, upper area non-calcareous, slightly calcareous at base of core, loose, dry.	1310
				1.6 J		SILTY CLAY: Stiff, thin sand lenses, poorly cemented, iron nodules, staining, calcareous, pale yellow (2.5Y), moist.	
						SILT, CLAY, AND SAND: Abundant very fine cemented sand, iron staining, pale olive (5Y), moist.	
-45		72				CALICHE: With very thin sand lenses, white, calcareous.	
						SILT, CLAY, AND SAND: With fine cemented sand matrix, calcareous, iron staining, caliche, silt content increases with depth, varigated color, pale yellow to light olive brown (2.5Y), moist to dry at base of zone.	
				2.6 J		SILT, CLAY, AND SAND: Very stiff, fine cemented sand, slightly calcareous, massive structure, light yellow-brown to light olive-brown (2.5Y), moist.	1305
				ND		CLAYEY SILT: Stiff, friable, light olive brown to white, carbonate nodules, calcareous, dry.	
-50						SILTY CLAY: With minor fine sand, calcareous, pale olive-pale yellow (5Y), moist.	
						SILT: Slightly indurated, light gray (2.5Y), slightly calcareous, thin, poorly cemented lenses (0.25") of very fine sand, slightly calcareous, dry.	
						NO RECOVERY	
						SILT: As above.	
				21			1300
		7.6				NO RECOVERY	
-55							
				1.3 J		SILTY CLAY: Irregular lamination, thin fine sand/silt lenses, oxidized, iron staining, olive (5YR), lense are calcareous, varigated color, moist.	
						NO RECOVERY	1295
-60				ND		CLAYEY SILT WITH SAND: Very fine sand and silt, gray (5YR), matrix is brown-yellowish (2.5Y), calcareous along seams, moist.	
				ND			1290

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-4

Project: Navarre

Elevation: 1351.63 ft.

Geologist: Lisa Larsen

Depth: 71 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						SILT, CLAY, AND SAND: Trace sand, silt content increases with depth, few roots, iron staining at base of core, blocky structure, very dark gray (10YR) to dark gray (10YR) with depth, moist, stiff, non-calcareous.	1350
				ND		SILT, CLAY, AND SAND: As above, abundant silt, dark brown (7.5YR) to brown (10YR), trace carbonate nodules, moist, stiff, non-calcareous.	
-5						SILT, CLAY, AND SAND: Iron stained sand grains (sub-rounded, coarse), silt content increases with depth, dark gray (10YR) to dark brown (7.5YR), moist, stiff, non-calcareous.	
				ND		CLAYEY SILT WITH SAND: Abrupt lithology change and sharp color change. Clayey silt, very fine sand, highly oxidized, vuggy porosity, irregular carbonate rich lenses throughout, sandstone pebbles and cobbles (up to 0.5 ft. diameter), angular to sub-rounded, dry, highly calcareous, except clay, small, black nodules, yellowish-brown (10YR).	1345
				ND		SANDY SILT: Very fine, non-calcareous, poorly cemented with carbonate, varigated coloring, pale olive (2.5Y) with white carbonate viens.	
-10						NO RECOVERY	1340
						SANDY SILT: Very fine, poorly cemented (carbonate), sandstone lenses (1-2" thick), irregular lamination, light olive-brown to light yellowish-brown (2.5Y), slightly moist, trace clay matrix, light gray-white coating, calcareous (except clay), clay content increases with depth, slightly moist-dry.	
-15				ND		SAND, SILT, AND GRAVEL: As above, decrease in clay, increase in sandstone pebbles, cobbles and sand, sub-rounded to angular.	
						CLAYEY SILT WITH SAND: Sharp lithology change. Clayey silt with abundant fine sand, sandstone fragments, angular and platy, poorly cemented, calcareous cement, very stiff, iron staining, moist, light yellowish-brown (2.5Y).	1335
				ND		SAND: Sharp lithology change. Sand poorly sorted, calcareous cement, fine to medium sand, pale yellow with white coating (2.5Y), dry.	
-20						NO RECOVERY	
				10		CLAYEY SILT: Abundant clay, irregular vuggular porosity, calcite and carbonate (caliche?) lenses, carbonate nodules, light olive-brown to light yellowish-brown (2.5Y) with depth, varigated.	1330
						NO RECOVERY	

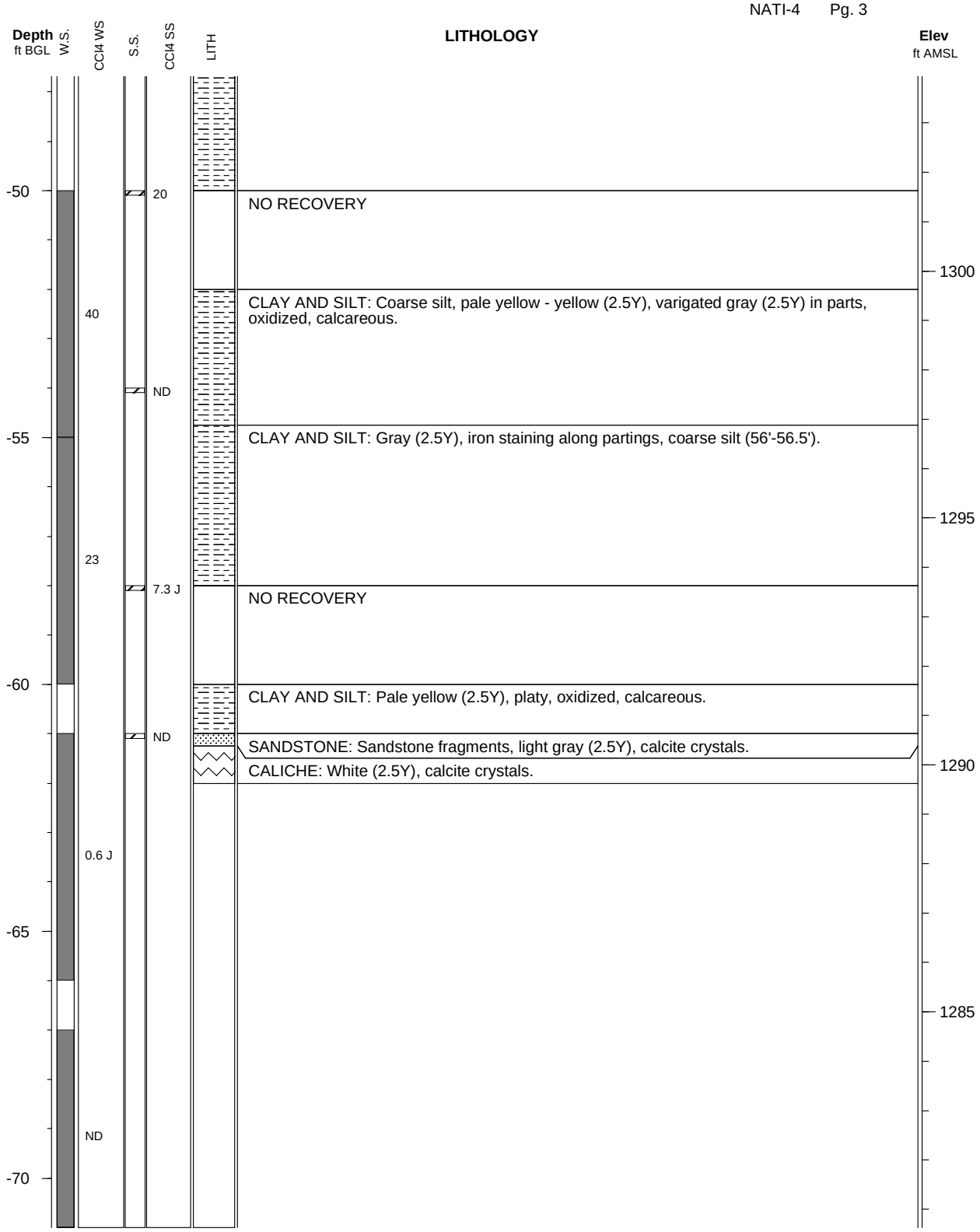
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-4 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						CLAYEY SILT WITH SAND: Very fine sand matrix (clay) is non-calcareous, poorly cemented (calcareous), sandstone fragments and irregular lamination (slump) at base of core, fine sand content increasing with depth, poorly sorted, clay content decreases with depth, light yellowish-brown to light olive-brown (2.5Y), color varigated.	
-25				29			
							1325
						NO RECOVERY	
						SILTY CLAY: Trace fine sand, increase in clay at 29.25' - 29.75', matrix is non-calcareous with calcareous lenses, light olive-brown to light yellowish-brown (2.5Y).	
				6 J			
-30							
				4 J			
						NO RECOVERY	1320
						SILTY CLAY: Laminated, oxidized very fine sand lenses, trace medium sand, non-calcareous, light olive-brown to yellowish-brown (2.5Y).	
				1 J			
-35							
							1315
				32		SANDSTONE: Fragments, pale olive (5Y), coated with carbonate.	
		76				SANDY SILT: Thin sand lenses, non-calcareous, light yellowish-brown (2.5Y), vuggular porosity, matrix non-calcareous, inclusions calcareous.	
						SILT: Indurated, pale yellow (2.5Y), friable, non-calcareous, slight iron staining at base, dry.	
						SILT, CLAY, AND SAND: Fine-medium sand, oxidized, mottled olive gray, light yellowish-brown (2.5Y), moist.	
						NO RECOVERY	
-40						NO RECOVERY	
							1310
		99				SILTY CLAY: With trace sand, occasional calcite crystals.	
-45						CALICHE: White (2.5Y), calcite crystals, vuggy, dense.	
				3.1 J			
						CLAY AND SILT: Pale yellow (5Y), iron staining along partings, coarse silt, occasional calcite crystals, calcareous.	1305

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-4 Pg. 3



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-5

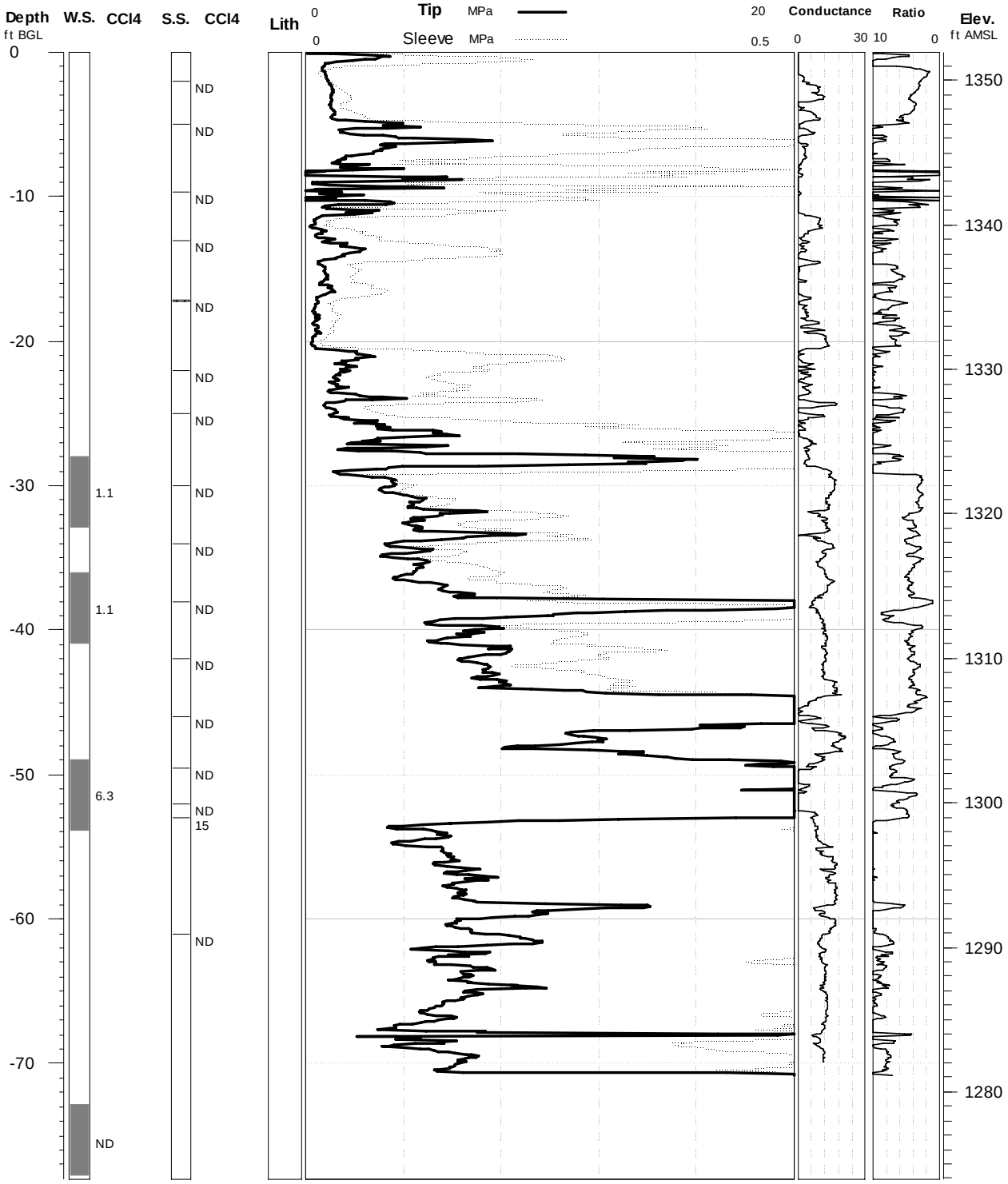
Project: Navarre

Elevation: 1351.96 ft.

Geologist: Lorraine LaFreniere

Depth: 77.8 ft. BGL

Log Date: 4/25/06



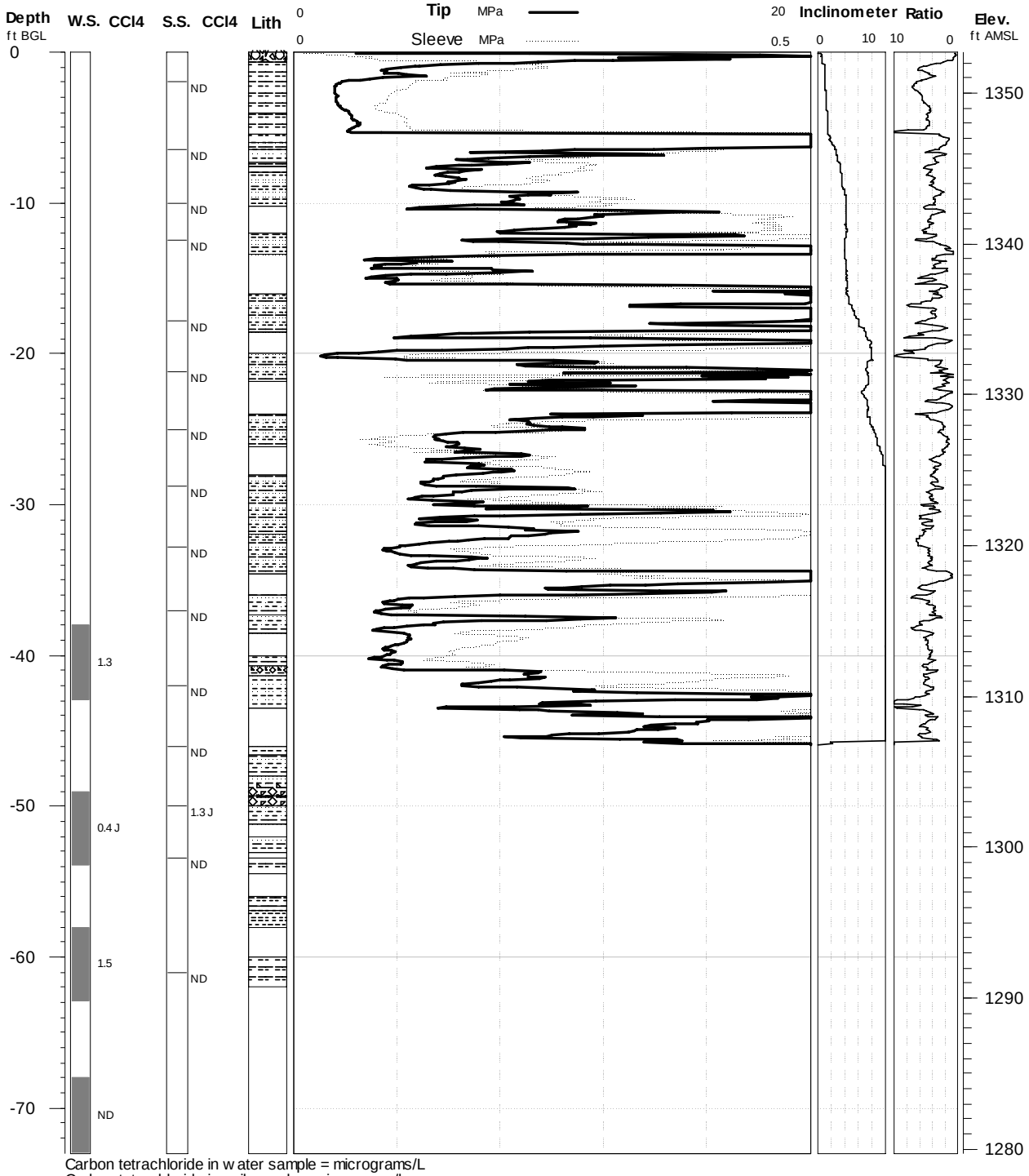
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-6

Project: Navarre **Elevation:** 1352.73 ft.

Geologist: Lorraine LaFreniere/Lisa Larsen **Depth:** 73 ft. BGL **Log Date:** 4/24/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-6

Project: Navarre

Elevation: 1352.73 ft.

Geologist: Lorraine LaFreniere/Lisa Larsen

Depth: 73 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL: Road gravel	
						SILTY CLAY: Very dark gray (10YR) to dark gray (10YR) with depth, stiff, slightly blocky, non-calcareous, trace roots, moist.	
				ND			1350
						SILTY CLAY: As above except color changes, increase in silt with trace fine sand, matrix is dark gray (10YR) with dark yellowish-brown (10YR) staining (oxidized), moist.	
-5							
						SILTY CLAY: With abundant gypsum fragments, vuggy porosity, calcareous cementation, varigated colorings, matrix is light yellowish-brown (10YR), cement is white (10YR), quartz grains are clear to yellowish-brownish (10YR), dry to slightly moist.	
				ND		CLAYEY SILT WITH SAND: Very fine sand, yellow with yellow to yellowish-brown oxidation (10YR), thin lenses of gypsum, vuggy porosity, trace roots, moist, calcareous, oxidized material is calcareous.	
						SILTY SAND: With gypsum crystals in a calcareous cement, poorly cemented, dry, sand grains are non-calcareous, angular, loose, very pale brown (10YR), vuggy porosity, thin gypsum lenses.	1345
						CLAYEY SILT WITH SAND: Very fine sand, varigated coloring, pale yellow to olive-yellow oxidation (2.5Y).	
						NO RECOVERY	
						SILT, CLAY, AND SAND: Very fine sand, pale yellow (2.5Y) with iron staining, calcareous, irregular lamination, moist.	
-10				ND			
						NO RECOVERY	
				ND		SILT, CLAY, AND SAND: Fine sand, thin layers of gypsum, olive-yellow (2.5Y), iron staining, white coating, slightly moist to dry.	1340
						NO RECOVERY	
-15							
						CLAYEY SILT WITH SAND: Abundant fine sand with laminated layers of gypsum and sand, olive-yellow (2.5Y), iron staining, very calcareous matrix, color becomes light yellowish-brown with depth (2.5Y).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-6 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND			1335
						NO RECOVERY	
-20						CLAYEY SILT WITH SAND: Abundant fine sand, thin irregular layers of gypsum, irregular laminations, slumping, pale yellow (2.5Y), iron staining, 1/2" SS lenses at ~21.5', vuggy porosity, gypsum, at base of unit, white calcareous coating, moist to dry at depth.	
				ND			
						NO RECOVERY	1330
						CLAYEY SILT WITH SAND: Fine sand, irregular laminations, thin gypsum lenses, light yellowish-brown (2.5Y), slightly calcareous, light olive-brown (2.5Y), trace oxidation, moist, stiff.	
-25				ND			
						NO RECOVERY	1325
						CLAYEY SILT WITH SAND: With very fine sand, light olive-brown (2.5Y), moist, increase in oxidized zones with depth, stiff clay inclusions with depth.	
				ND			
-30							
				ND		CLAYEY SILT WITH SAND: Fine to medium grained (occasionally coarse sand), rounded to sub-angular. Highly calcareous, slight selective oxidation present, trace granular gravel. Damp to moist. Silt fraction increases with depth as do occurrences of clay clasts, silty. Pale yellow (2.5Y), mottling.	1320
-35						NO RECOVERY	
						CLAY, SILTY WITH SAND: Fine to coarse sand, pale yellow (2.5Y), trace very fine pyrite disseminated throughout, highly calcareous, mottling - pale yellow and white (2.5Y).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-6 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND			
						CLAY, SILTY WITH SAND: As described above with marked increase in sand, occassional sub-angular gravel, increase evidence of cementation of sand. Highly calcareous matrix.	1315
						NO RECOVERY	
-40		1.3				CLAY, SILTY WITH SAND: Abrupt color change to light brownish-gray (2.5Y), evidence of selective oxidation associated with sandy areas as well as cementation of sand grains (calcareous cement matrix). Damp.	
						SILT, SAND, AND GRAVEL: Gradual color change to white (2.5Y), highly calcareous, very silty sand almost chalky in appearance. Sand content increasing with grain size, predominantly coarse, some evidence of granular gravel. Less porous then overlying unit.	
				ND		SILTY SAND: White (2.5Y), coarse silt, sand content increases with depth, calcareous.	1310
						NO RECOVERY	
-45							
				ND		SILTY SAND: Continued as described for unit 40.7' - 41.3'.	
						CLAY, SILTY WITH SAND: Color change to pale yellow (2.5Y), sand content high, selective oxidation. Iron oxide angular grains, sand fine grained to coarse, porous, moist to damp, trace fine pyrite. Clay content varies thoughout unit. Predominantly clay areas less calcareous, light brownish-gray (2.5Y).	1305
						CLAY, SAND WITH GRAVEL: Abrupt color change to pale yellow (2.5Y), moist, very plastic, clay, sandy unit with gravel fraction. Very poorly sorted sand to very coarse grained, rubble formation, mixed lithology. Gravel, angular to sub-rounded variably calcareous content. Clay matrix generally less calcareous. Lithology: sand and gravel with clay matrix, gravel composed of indurated limestone fragments, fine grained clays.	
						CLAY, SAND WITH GRAVEL: As described above with slight color change to pale yellow (5Y). Reduction in presence of gravel fraction.	
-50				1.3 J		CLAY, SILTY WITH SAND: Trace pyrite throughout, porous, highly calcareous, sand fine to coarse grained. Light brownish-gray (2.5Y). Moist to damp.	
		0.4 J				NO RECOVERY	
						CLAY, SILTY WITH SAND & GRAVEL: Definite oxidized areas, porous with sub-rounded sand - fine with medium gravel. Clay clasts throughout, faintly calcareous.	1300
				ND		CLAY, SILTY: Thin platy layers in appearance, some evidence of coarser silt, defining layers, light brownish-gray (2.5Y). Minor evidence of oxidation, selectively calcareous areas.	
						CLAY, SILTY: As described above with only hint of plastic texture. Marked increases in silt content. Light brownish-gray (2.5Y). Damp and less plastic.	
-55						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-6 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILT, CLAYEY: Silt is coarse, becoming coarser grained with depth to a fine sand. Generally non- to slightly calcareous, light gray (2.5Y). Dry to damp.	
						CLAY, SILTY WITH SAND: Oxidized, platy texture, dry to damp, generally non-calcareous, light yellowish-brown (2.5Y).	
						SILT: Calcareous, white (2.5Y).	1295
						NO RECOVERY	
-60		1.5		ND		CLAY, SILTY: Platy texture - variably silty - silt defining laminae. Angular clay fragments present, minor fine to medium grained sand present. Coarseness of silt and sand content increases with depth. Light gray to white (2.5Y), calcareous, evidence of soft sediment deformation, vertical laminae present. Platy structure with color variations to gray (2.5Y).	
							1290
-65							
							1285
-70		ND					
							1280

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-7

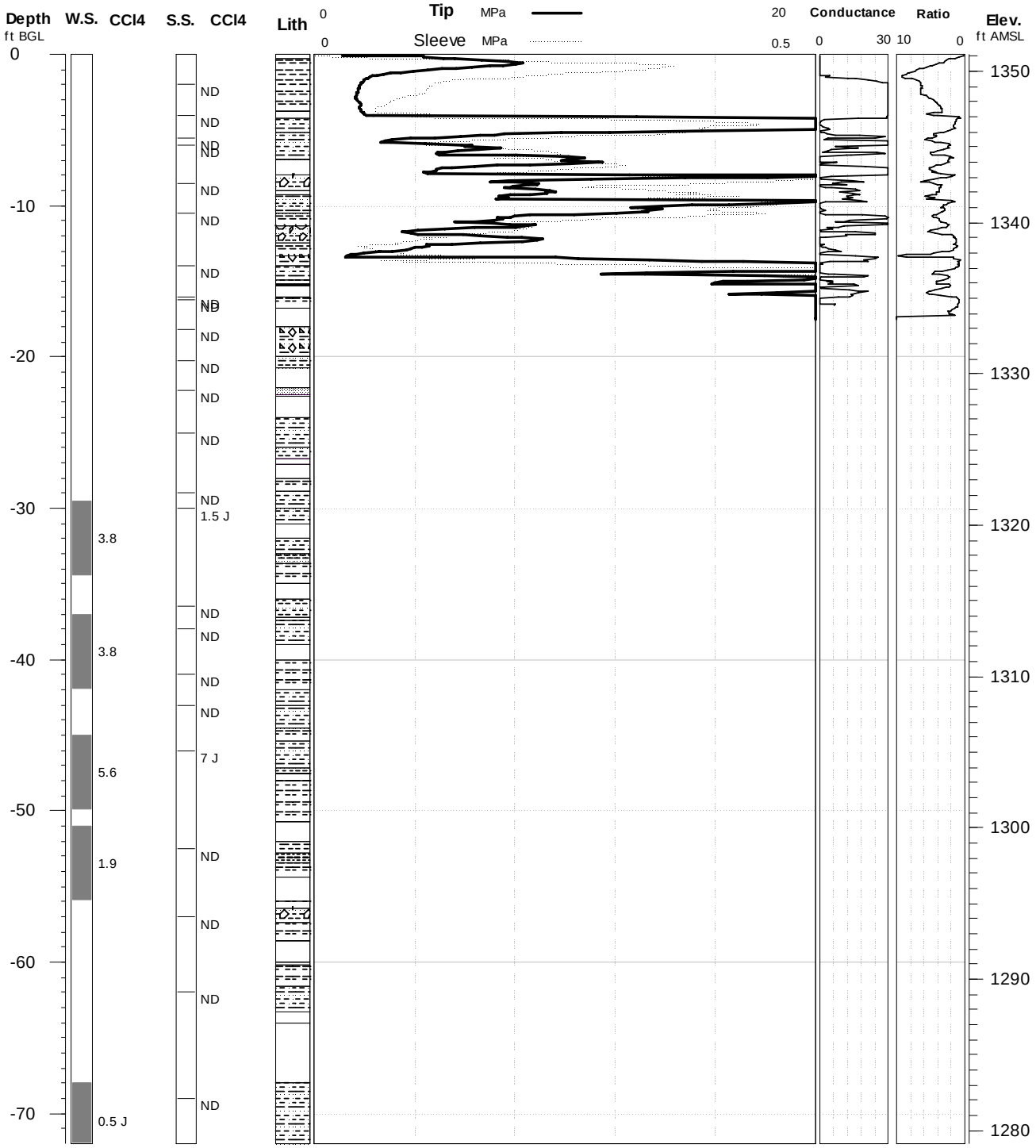
Project: Navarre

Elevation: 1351.14 ft.

Geologist: Lorraine LaFreniere

Depth: 72 ft. BGL

Log Date: 4/8/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-7

Project: Navarre

Elevation: 1351.14 ft.

Geologist: Lorraine LaFreniere

Depth: 72 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY: Fill	
						CLAY: Dark grayish-brown (10YR), non-calcareous, damp, plastic.	1350
				ND			
				ND		SAND, SILTY: Dry, friable, sub-angular to sub-rounded quartz, light yellowish-brown (2.5Y). Highly calcareous, partially cemented.	
-5						CLAY, SILTY WITH SAND: With inclusions and lenses of highly calcareous oxidized silty sand, well sorted fine sand to coarse silt. Sand is light yellowish-brown (2.5Y) clay matrix - brown (10YR) calcareous clay.	
				ND		SILT, CLAYEY WITH SAND: Dry, very difficult zone to penetrate - silt, clayey with sand, light yellowish-brown (2.5Y). Dry, medium sand in lenses, sub-rounded grains, calcareous.	
				ND			1345
						NO RECOVERY	
				ND		CLAY, SILT AND GRAVEL: Lenses of silt and trace granular gravel. Damp, siltier areas - calcareous, damp to dry. Light brownish-gray (10YR).	
						CLAY, SILTY: As above - no gravel - more highly oxidized, light yellowish-brown (2.5Y), damp to dry, highly calcareous.	
-10						CLAYEY SILT WITH SAND: Color change - contact gradational, clayey silt with occassional sand grains (sub-rounded quartz). Highly calcareous in matrix, lenses of coarse silt to fine sand, very highly calcareous. Partly indurated lenses, light olive gray (5Y).	
				ND		CLAY: Gradational contact into clay with tiny inclusions and very thin sandy partings. Light olive brown (2.5Y), highly calcareous.	1340
						SILT, SAND, CLAY & GRAVEL: Fine grained silty, sand with clay inclusions, angular sandstone gravel (granular to pebble size), calcium carbonated cemented - faintly laminated, oxidized light yellowish-brown (2.5Y).	
						CLAY: Moist clay, plastic, silty, light yellowish-brown (2.5Y), calcareous.	
				ND		CLAY,SILT,SAND & GRAVEL: Wet, clay, silty with gravel and sand. Fossil fragments - (pelecypod fragments) Gravel - sandstone (calcareous cementation), sand to very coarse grained "hash zone".	
						CLAY, SILTY WITH SAND: Dry clay, very silty with very fine sand, calcareous yellowish-brown (10YR), abundant evidence of iron oxide in laminae.	
-15						SANDY SILT: Dry, very sandy, silt. Sand very fine grained to coarse silt, occasional sub-angular quartz grains increasing to very coarse grained with depth.	
						SAND AND GRAVEL: Dry sand and gravel. Gravel (sandstone) with thin layers of calcification (white) with vuggular porosity calcite lined, dry, light yellowish-brown (10YR).	
				ND			1335
				ND		NO RECOVERY	
						CLAYEY SILT: Limited recovery - dry, friable. Clayey silt. Light yellowish-brown (10YR), calcareous.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-7 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						NO RECOVERY	
				ND		SAND, SILT, CLAY AND GRAVEL: Sand predominant, fine, trace medium gravel - indurated sandstone - light yellowish-brown (10YR), angular granular pebbles, calcareous.	
-20				ND		SILT, SANDY WITH CLAY: Dry, coarse silt to fine sand, slight clay content. Trace sub-angular gravel (sandstone) highly calcareous sand and clay.	
						NO RECOVERY	1330
				ND		SANDSTONE: Dry, indurated sandstone - calcareous.	
						SILT AND SAND: Dry silty with fine sand, very pale brown (10YR)	
						NO RECOVERY	
						CLAY, SILTY WITH SAND: Damp clay, silty with trace sand grains, minor sub-angular limestone gravel, pale brown (10YR).	
-25				ND			
						CLAY, SANDY: Damp, clay, very sandy, becoming increasingly sandy with depth. Sand predominantly fine grained, light yellowish-brown (2.5Y).	1325
						SILT AND SAND: Dry, loose coarse silt to fine sand, light yellowish-brown (2.5Y).	
						NO RECOVERY	
						CLAY, SILTY: Damp clay, very silty to silt, clayey, crumbly texture in part, calcareous.	
				ND		CLAY, SILTY WITH SAND: Damp, clay, silty with thin sand partings and tiny inclusions, non-calcareous, FeO2-tiny nodules. Sand to fine/medium grained increasing with depth. Clay stiff, sand lenses calcareous.	
-30				1.5 J		CLAY, SILTY WITH SAND: Damp, clay, silty, thin sand partings, stiff clay, slight laminations. FeO2 nodules, minor. Clay, pale brown (10YR), sand lense - light olive brown (2.5Y).	
		3.8				NO RECOVERY	1320
						CLAY, SILTY WITH SAND: With loose sand lenses, calcareous, calcified sandstone cobble at 32.5' [cobble indurated - hard sandstone cobble, trace fossil hash]. Highly calcareous throughout.	
						SAND AND CLAY: Very sandy clay - less calcareous than above. Light yellowish-brown (2.5Y), trace sandstone gravel.	
						CLAY, SILTY: Damp/moist, clay, silty, slightly damp at interface. Yellowish-brown (10YR), clay - non-calcareous, sand inclusions - calcareous, oxidized.	
-35						NO RECOVERY	
				ND		CLAY, SANDY: Moist, clay very sandy, inclusions of sand throughout, predominantly fine grained, well sorted, highly calcareous.	1315

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-7 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						CLAY: Transition zone increased clay content.	
						CLAY, SILTY WITH SAND: FeO2 partings, with very fine sand, non-calcareous, minor FeO2.	
				ND			
		3.8				NO RECOVERY	
-40						CLAY, SILTY: Clay, very silty to silt, clayey with trace medium grained sand, calcareous, damp to moist, plastic, pale brown (10YR).	
				ND			1310
						CLAY, SILTY WITH SAND: Stiff, sandy inclusions and lenses (very calcareous). Clay - non to trace calcareous, light yellowish-brown (2.5Y).	
				ND		CLAY, SILTY WITH SAND: Dry to damp, dense clay, silty with inclusions of clear, sub-rounded to rounded quartz grained sand, inclusions are cemented, trace FeO2, white (2.5Y), calcareous.	
-45						CLAY, SILTY: Damp clay, very silty with trace indurated clay inclusions, grayish-brown (10YR), variably calcareous, crumbly texture.	
				7 J		CLAY, SILTY WITH SAND: Damp, clay, silty with sand inclusions, hard and dense clay, sand - fine grained to coarse silt, moderately calcareous.	1305
		5.6				SILT WITH CLAY: Dry, silt with clay, dry and crumbly, very pale brown (10YR), highly calcareous.	
						NO RECOVERY	
						CLAY, SILTY: Dry clay, silty, light yellowish-brown (2.5Y).	
-50							
						NO RECOVERY	1300
				ND		CLAY, SILTY WITH SAND & GRAVEL: Damp to moist, clay, silty with sand and gravel. Angular granular to pebble sized gravel (1.5" length), sandstone and limestone (calcareous matrix), light yellowish-brown (2.5Y).	
		1.9				CLAY AND SILT: Damp, dense, stiff clay, FeO2 staining intermittently, light yellowish-brown (2.5Y), minor indications of small inclusions of coarse silt.	
						CLAY, SILTY: Dry clay, very silty, light yellowish-brown (2.5Y), minor silt inclusions (calcareous) in slightly calcareous clay	
-55						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-7 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILTY CLAY: Damp, very silty clay with fragments of grayish-brown throughout, not generally visible, non-calcareous, light yellowish-brown (2.5Y).	1295
				ND		CLAY, SILT AND GRAVEL: Damp to dry, clay, silty with trace gravel (angular), minor FeO2, light yellowish-brown (2.5Y)	
						CLAY, SILTY: Moist, clay, silty, dense, hard, light olive brown (2.5Y), trace silt stringers.	
						NO RECOVERY	
-60						CLAY, SILTY: Moist, clay, silty, dense, hard, light olive brown (2.5Y), trace silt stringers.	
						SILTY CLAY: Dry, very silty clay, trace sub-angular limestone granules, minor trace FeO2 veins.	1290
				ND		CLAY, SILTY WITH SAND: Dry, clay, silty, dense and hard, light olive-brown (2.5Y), faint laminations defined by alternating very coarse silt layers and very fine sand (apparent varves). Generally non-calcareous.	
						NO RECOVERY	
						NO RECOVERY	
-65							1285
				ND		CLAY, SILTY WITH SAND: Same description as unit 61.6' - 63.3'.	
-70		0.5 J					1280

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-8

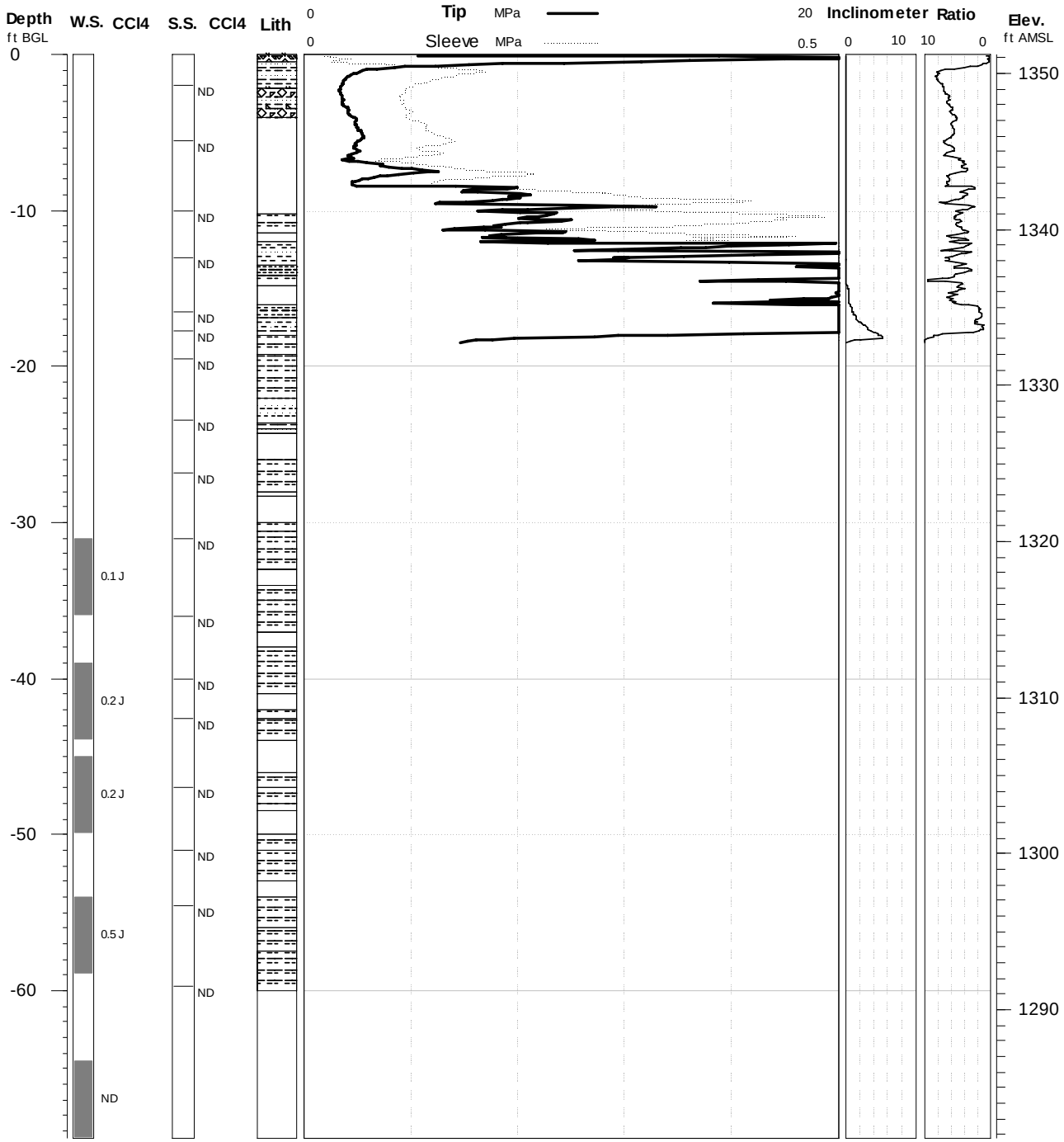
Project: Navarre

Elevation: 1351.21 ft.

Geologist: Lisa Larsen

Depth: 69.5 ft. BGL

Log Date: 4/10/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-8

Project: Navarre

Elevation: 1351.21 ft.

Geologist: Lisa Larsen

Depth: 69.5 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						FILL: Gravel, fill.	
						CLAY, SILT AND SAND: Trace silt and sand, very dark grayish-brown (10YR), stiff.	1350
				ND			
						CLAY, SAND WITH GRAVEL: Trace sand, gravel fragments, dark brown (10YR), platy in parts, stiff.	
						NO DESCRIPTION: Recovered core not described. Sample taken.	
-5							
				ND			1345
-10				ND			
						CLAY, SILTY: Pale olive (5Y), dry, platy, trace oxidation throughout.	1340
						NO RECOVERY	
						CLAY WITH SAND: Pale olive (5Y), spotty oxidation, no structure, dense.	
				ND			
						CLAY AND SILT: White (5Y), highly calcareous, loose, trace coarse silt.	
						CLAY, SILTY: Coarse, light gray (5Y), platy, calcareous.	
-15						NO RECOVERY	
						SILT WITH CLAY: Trace clay, light yellowish-brown (2.5Y), trace fine sand with veins of small crystals, no structure.	1335

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-8 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND			
						CLAY, SILTY WITH SAND: Trace sand, varigated black (2.5Y), light gray (5Y) and yellow (2.5Y), veins of calcite (vertical and horizontal).	
				ND			
						CLAY, SILTY: Pale yellow (5Y), white (5Y), oxidation along veins with calcite - vuggy.	
				ND		CLAY, SILTY: Varigated pale yellow (5Y) to olive (5Y), platy, thin layer (1") of calcite at 21.8 ft.	
-20							1330
						SILT, SANDY: Very fine, light yellowish-brown (2.5Y), loose, some oxidation.	
				ND			
						CLAY, SILTY WITH SAND: Dark grayish-brown (2.5Y), evidence of fine roots, calcite throughout.	
						SILT, CLAYEY: Pale olive (5Y), no structure evident, powdery texture, silt coarse grained.	
						NO RECOVERY	
-25							
						CLAY, SILTY: Strong brown (7.5YR) to light olive brown (2.5Y), very stiff, evidence of oxidation.	1325
				ND			
						CLAY, SILTY: Light olive gray (5Y), thin veins of calcite, little structure.	
						NO RECOVERY	
-30							
						CLAY, SILTY: White (5Y), calcareous, little structure.	
						CLAY, SILTY: Dark yellowish-brown (10YR) and olive (5Y), platy, oxidation evident.	
				ND			1320
		0.1 J				NO RECOVERY	
						CLAY, SILTY: Olive (5Y), medium plasticity, soft, very moist.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-8 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
-35						CLAY, SILTY: Pale yellow (5Y), platy, oxidation evident throughout.	
				ND			1315
						NO RECOVERY	
						CLAY, SILTY: Light olive gray (5Y) to pale olive (5Y), platy, oxidation throughout.	
-40				ND			
		0.2 J				NO RECOVERY	1310
						CLAY, SILTY: As above in 38-41 ft.	
				ND		CLAY, SILTY: Coarse silt, platy, calcite crystals throughout, calcareous.	
						NO RECOVERY	
-45							
						CLAY, SILTY: Coarse, light gray (5Y), small calcite crystals evident, platy.	1305
				ND			
		0.2 J				CLAY, SILTY: Varigated olive yellow (2.5Y) with white (5Y), hard, platy towards the bottom of unit, some gray staining.	
						CLAY, SILTY: Coarse, light olive gray (5Y), platy, calcite crystals throughout, trace oxidation.	
						NO RECOVERY	
-50						CLAY, SILTY: As above in 48-48.5 ft.	
				ND		CLAY, SILTY: Coarse olive (5Y) to light gray (5Y), calcite throughout, slightly oxidized in parts, very stiff.	1300

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-8 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						NO RECOVERY	
-55				ND		CLAY, SILTY: As above in 51-53 ft.	
		0.5 J				CLAY, SILTY: Coarse, little structure, white (2.5Y), calcareous.	1295
-60				ND		CLAY, SILTY: Dark grayish-brown (10YR), platy, white (5Y) nodules, calcareous, coarse silt.	
							1290
-65							1285
		ND					

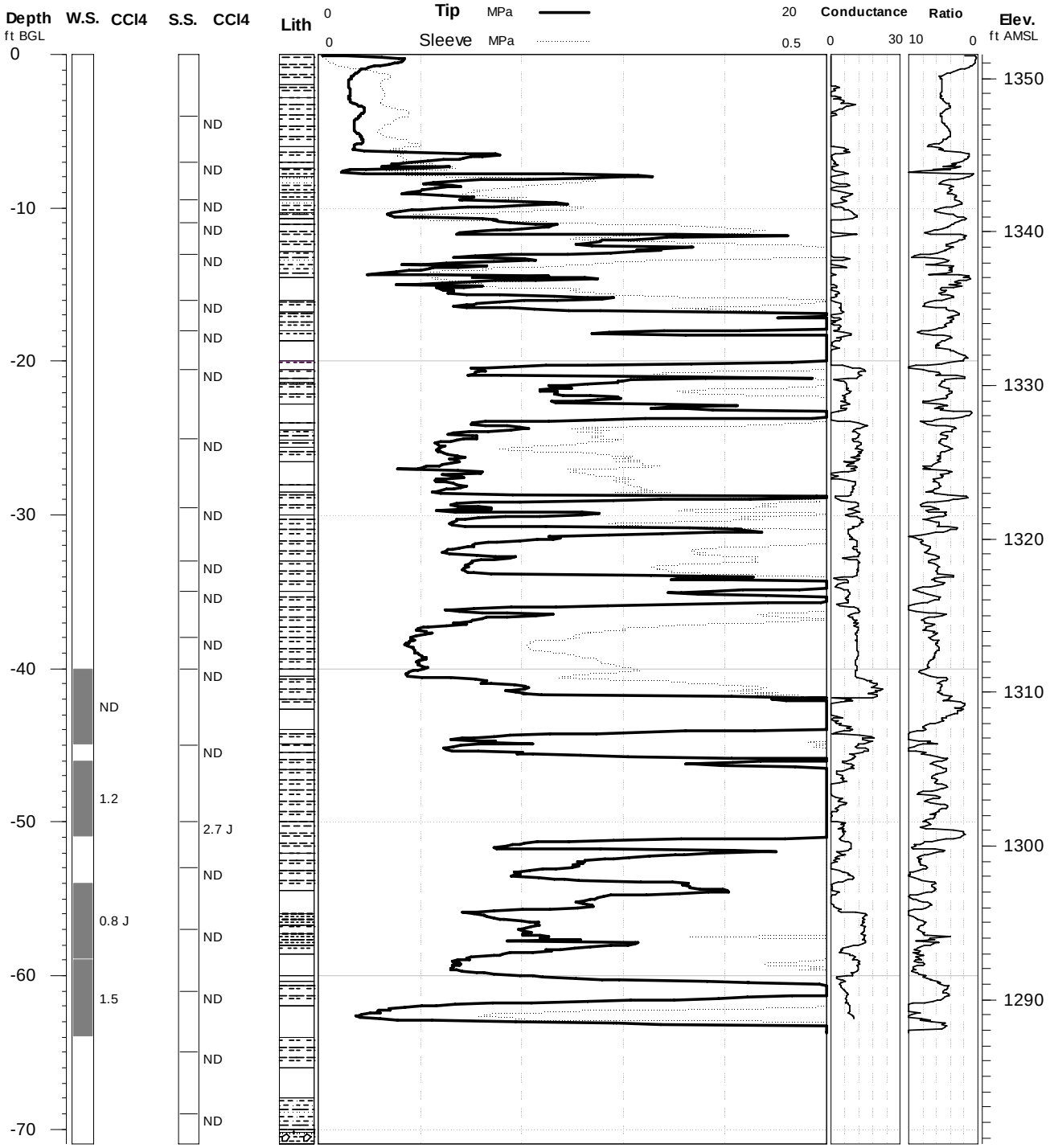
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-9

Project: Navarre **Elevation:** 1351.55 ft.

Geologist: Lorraine LaFreniere **Depth:** 71 ft. BGL **Log Date:** 4/21/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-9

Project: Navarre

Elevation: 1351.55 ft.

Geologist: Lorraine LaFreniere

Depth: 71 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY: Moist, plastic, slightly silty, very dark gray (10YR).	1350
						CLAY: With increased silt content, dark grayish-brown (10YR), moist, plastic (slightly).	
			ND			CLAY, SILTY: Very silty throughout with increased silt content with depth. Evidence of selective oxidation also increasing with depth as is grain size to a coarse silt in lenses. Dark grayish-brown (10YR).	
-5							
						SILTY CLAY: Abrupt color change to pale brown (10YR). Very silty clay with lenses and partings of very coarse silt to fine sand, selectively oxidized, low plasticity, Damp.	1345
			ND			SILT, CLAYEY: With variable clay content, clay clasts in layers, lenses and partings of fine sand. Color varies from pale brown (10YR) to light brownish-gray (2.5Y). Damp.	
						SILT, SANDY WITH CLAY: With clay partings, heavily oxidized, partially cemented, damp/minor vuggular porosity lined with calcite crystals. Sand to medium grained, sub-angular. Light brownish-gray (10YR).	
						SILT, CLAY, AND SAND: Sand and coarse silt in lenses and partings in predominantly clay matrix. Damp. Trace angular granular gravel and calcite cemented nodules. Pale brown (10YR), oxidized.	
			ND			SILT, CLAY, AND SAND: As described above with slight to moderae increase in clay content. Damp. Pale brown (10YR).	
-10						SILT, SANDY WITH CLAY: Oxidized pale brown (10YR). Damp.	
						CLAY, SILTY WITH SAND: With lenses of silt and fine sand. Damp. Pale brown (10YR).	
			ND			CLAY, SILTY: Yellowish-brown (10YR), basal contact, highly oxidized coarse silt lense. Damp.	
						CLAY: Minor silt content, damp with minor nodules of calcite cemented fine sand and silt, silt content increasing with depth, trace fine sand, minor silt to fine sand lenses near base of unit. Light yellowish-brown (2.5Y).	1340
			ND			SILT, CLAYEY WITH SAND: Coarse silt and fine sand occurs in lense and inclusions, coarse sand content increasing with depth. Light olive-brown (2.5Y), selectively oxidized. Damp.	
-15						NO RECOVERY	
			ND			CLAY, SILTY: With minor silt to fine sand inclusions present. Light olive-brown (2.5Y). Damp.	1335

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-9 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILT, CLAYEY: Abrupt contact with moist, oxidized, silt, clayey, faintly laminated. No plasticity, brownish-yellow (10YR), clay clasts present.	
				ND		SILT, SANDY: Fine to medium sand, slight clay content, dry, friable, very pale brown (10YR).	
						NO RECOVERY	
-20						SILT AND SAND: Highly weathered, coarse silt to fine sand, dry, friable, minor clay content. Highly calcareous, white (10YR).	
				ND		SILTY CLAY: Abrupt contact with underlying silty clay. Platy texture with layers of clear calcite cement, clay, silty/sand, sand to coarse grained, poorly sorted. Possible evidence of soft sediment deformation. Calcareous, sand in lenses, slight evidence of oxidation. Light brownish-gray (10YR).	1330
						CLAY, SILTY WITH SAND: Dry to moist, slightly calcareous, pale brown (10YR), sand in lenses associated with soft sediment deformation.	
						SILTY CLAY: Highly calcareous, very silty clay with lenses and inclusions of silty sand. Silty sand areas with obvious porosity. Sand is fine grained to coarse grained, light yellowish-brown (2.5Y). Moist.	
						NO RECOVERY	
						SILTY CLAY: Highly calcareous, silty clay with limestone cobble, sub-angular.	
						CLAY, SILTY WITH SAND: Platy clay, silty with fine to medium sand, slightly oxidized. Moist.	
-25				ND		CLAY, SILTY WITH SAND: Coarse silt to fine sand, selectively oxidized, thin layers - (horizontal) and inclusions, porosity. Light olive-brown (2.5Y), highly calcareous, damp.	
						SILTY CLAY: Dense, hard, silty clays, damp. Light olive-brown (2.5Y), slightly calcareous.	
						NO RECOVERY	1325
						SILTY CLAY: Dense, light gray (5Y), limestone fragments, calcareous.	
						SILTY CLAY: Dense at depth, light gray (5Y), oxidized in parts, calcareous.	
				ND			
-30						SILTY CLAY: Dense, thin oxidized laminations, light gray (2.5Y), calcareous oxidation increases with depth.	1320
				ND		SILTY CLAY: Faintly laminated, olive yellow (2.5Y), occasional thin silt layers, calcareous.	
-35				ND		SILTY CLAY: Light yellowish-brown (2.5Y) to olive yellow (2.5Y), trace laminations, slightly oxidized in parts, occasional limestone fragments, calcareous.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-9 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
							1315
				ND			
-40				ND		CLAY, SILTY: Damp, minor vuggular porosity - some lined with coarse silt grains. Basal contact oxidized. Light yellowish-brown (2.5Y), calcareous.	
						CLAY, SILTY: Damp, hard, non-plastic. Lenses of silt scattered throughout interval. Selective oxidation associated with the siltier areas. Light brownish-gray (2.5Y), clay - non-calcareous, silt inclusions - calcareous.	1310
		ND				CLAY: Very fine grained, stiff, hard, some thin stringers of fine silt present. Light gray to white (2.5Y), highly calcareous.	
						NO RECOVERY	
						CLAY, SILTY: Hard, stiff, damp. Slightly mottled in appearance, fine silt in small lenses scattered throughout. Silt content increases with depth, light yellowish-brown (2.5Y). Crumbly appearance in part, highly calcareous.	
-45				ND		CLAY: Dense, hard, damp, non-plastic, faintly developed laminae, fine silt areas, brown (10YR). Calcareous.	
						CLAY, SILTY: Abrupt contact, clay silty to silty clay, light gray (2.5Y), dry. Silt content increases with depth. Highly calcareous layers - concentration of cementation.	1305
		1.2				SILTY CLAY: To clayey silt, fractured horizontally, debris calcareous, dry. loose and unconsolidated, (platy) fractured material as described above, light gray (2.5Y), selectively oxidized, calcareous.	
-50				2.7 J		CLAY: Damp, horizontally - platy clay, faintly laminated with oxidzed silt. Soft sediment deformation in evidence in part, clay matrix varies from light gray (2.5Y) to dark grayish-brown (10YR). Calcareous.	1300
						SILTY CLAY: Platy, very silty clay, sandy in part - areas of few sand grains, generally damp. Some evidence of soft sediment deformation, calcareous. Grayish brown (2.5Y).	
				ND			
						SILTY CLAY: Silty inclusions, clay, dense, hard, damp, moderately calcareous, light brownish-gray (10YR).	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-9 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
-55						NO RECOVERY	
		0.8 J				CLAY AND SILT: With silt inclusions throughout, silt is fine to coarse. Slightly platy fabric, gray to light brownish-gray (10YR), non to faintly calcareous.	1295
				ND		CLAY, SILTY: Faint layers (varied) present throughout. Dense clay, hard, damp, trace cemented calcareous silt layers at base of unit. Gray to light brownish-gray (10YR). Matrix clay is non-calcareous.	
						CLAY AND SILT: Upper contact oxidized, remainder of unit varved with distinct layers of alternating gray (10YR) clay and pale brown (10YR) silt. Non-calcareous. Clay - calcareous silt. Damp.	
						SILT, CLAYEY: Light brownish-gray (2.5Y), calcareous. Damp to dry.	
						NO RECOVERY	
-60						CLAYEY SILT: Damp, highly calcareous, light yellowish-brown (2.5Y).	
						CLAY, SILTY: Trace medium sand, slightly to highly calcareous, light yellowish-brown (2.5Y).	
				ND		CLAY, SILTY: Silt in areas defined by increased porosity and calcareous nature, dense, hard. Pale yellow (2.5Y) with sharp change to light gray at 61 ft.	
		1.5					1290
						NO RECOVERY	
						SILTY CLAY: White calcareous inclusion at 64 ft., thin bands of oxidized silt, slightly laminated, pale to light yellowish-brown (2.5Y), trace sand grains.	
-65				ND			
						NO RECOVERY	
							1285
						SILT, CLAYEY WITH SAND: Same as 64-66 ft. with some increase in sand. Pale to light yellowish-brown (2.5Y).	
				ND			
-70						CLAY, SANDY WITH SILT: With lenses and inclusions of poorly sorted sand (medium to coarse grained), sub-angular to sub-rounded, plastic, highly calcareous. Wet.	
						SAND, CLAYEY WITH GRAVEL: Clay occurs as matrix and occasional clay clasts. Sand is poorly sorted, medium to coarse grained, sub-angular to sub-rounded. Highly calcareous, gravel abundant and compound of angular fragments of calcareous cemented, weathered sandstone. Wet.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-10

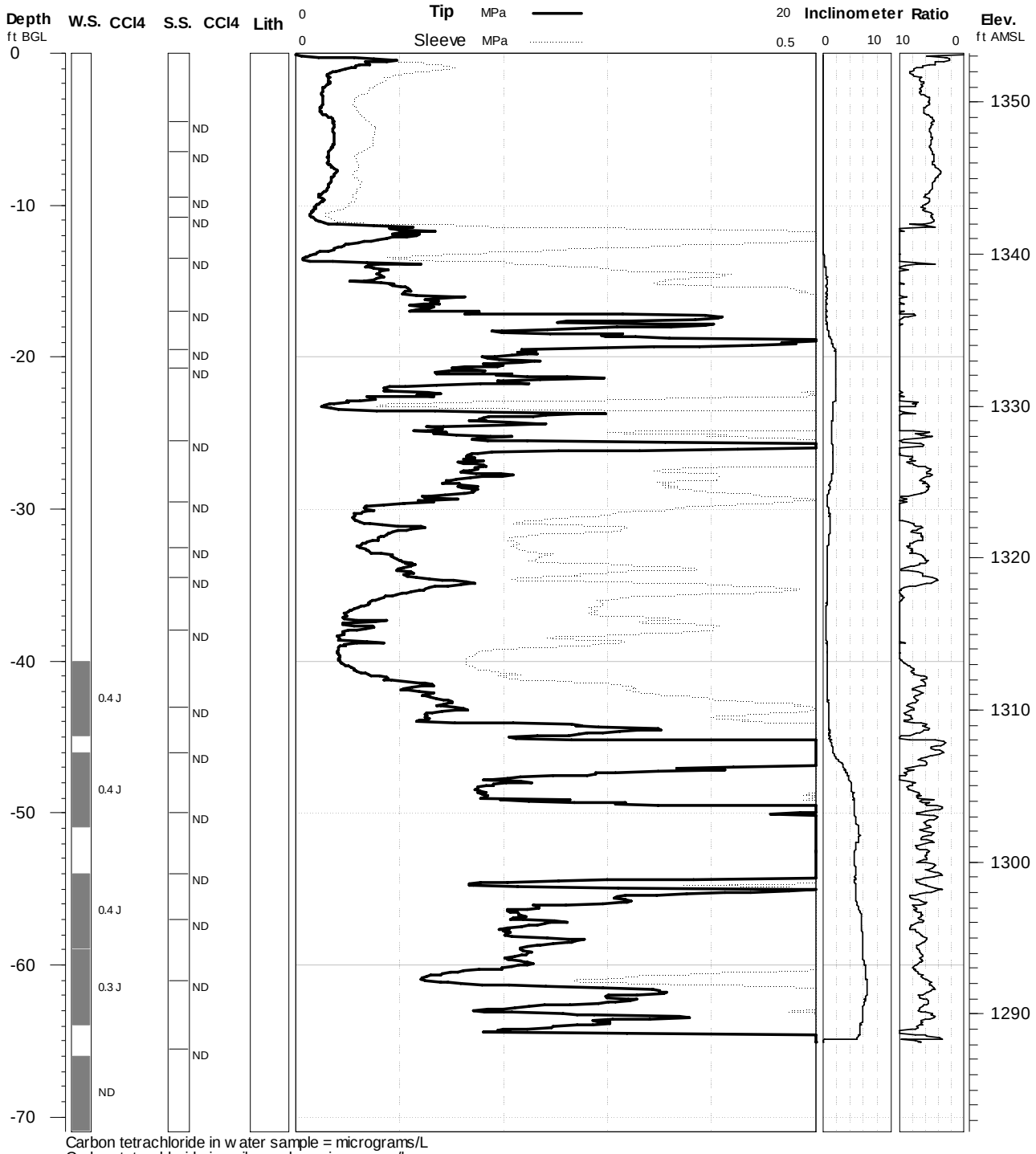
Project: Navarre

Elevation: 1353.21 ft.

Geologist: Lorraine LaFreniere

Depth: 71 ft. BGL

Log Date: 4/25/2006



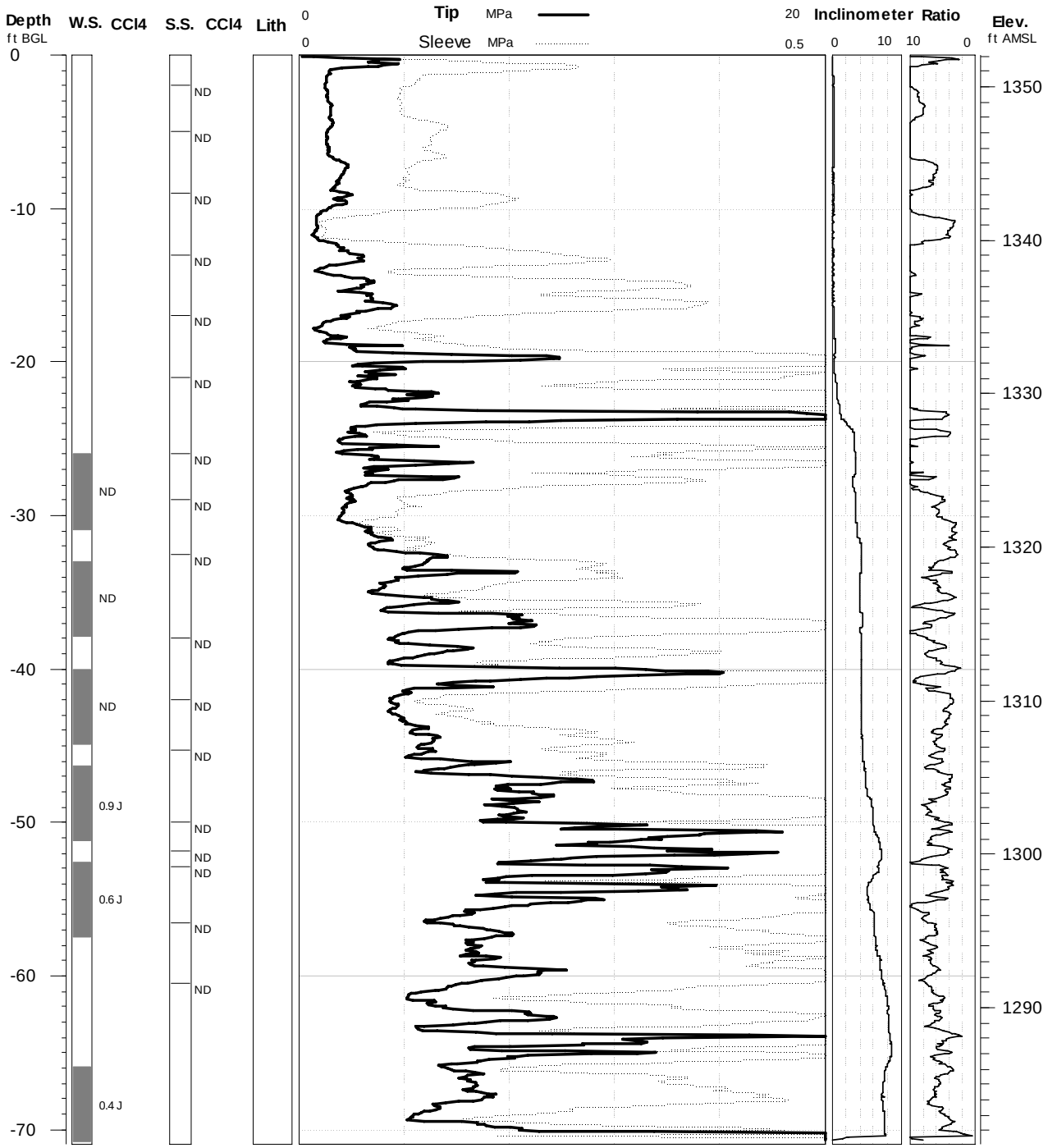
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-11

Project: Navarre **Elevation:** 1352.07 ft.

Geologist: Lorraine LaFreniere **Depth:** 70.9 ft. BGL **Log Date:** 4/27/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-12

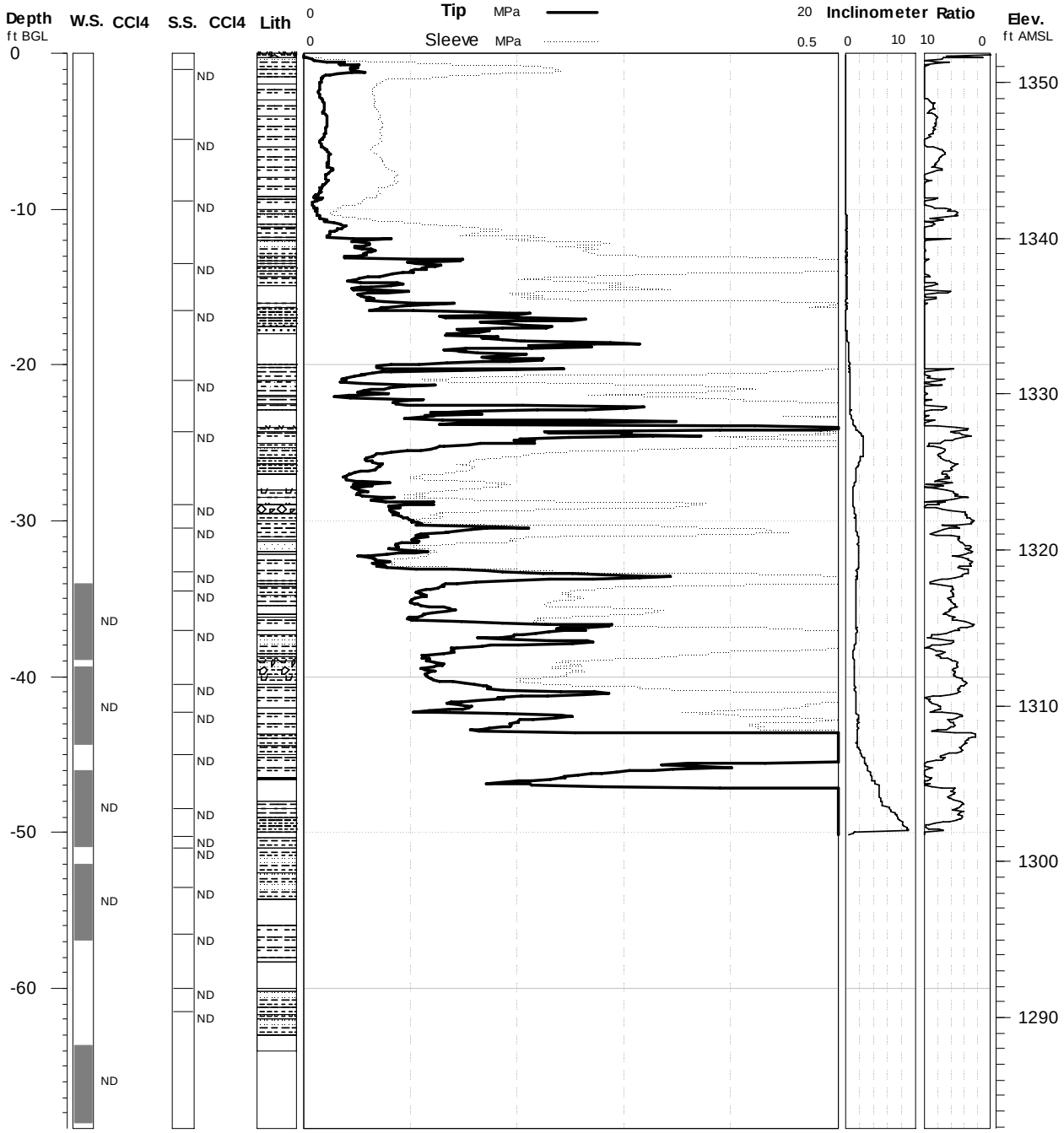
Project: Navarre

Elevation: 1351.87 ft.

Geologist: Lisa Larsen

Depth: 68.68 ft. BGL

Log Date: 4/28/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-12

Project: Navarre

Elevation: 1351.87 ft.

Geologist: Lisa Larsen

Depth: 68.68 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						GRAVEL: With silt, clay and sand, brown.	
						SILT, CLAY, AND SAND: Fine sand, dark brown (10YR), moist, some gravel fragments, rust staining.	
				ND		SILT, CLAY, AND SAND: Lith color change, pale yellow (2.5Y), silty clay with sand (fine grained), dry, gravel fragments.	
						SILTY CLAY: Moist, dark brown (10YR), oxidation, soft.	1350
						SILTY CLAY: As above.	
						SILTY CLAY: Brown (10YR), moist, soft, plastic, some sand, non-calcareous.	
-5				ND		SILTY CLAY: Moist, plastic, some larger angular fragments, brown (10YR), oxidized nodules increasing with depth, increase in silt with depth with sand.	
						SILTY CLAY: With silt partings, moist, soft, dark brown (10YR), oxidized.	1345
						SILTY CLAY: Abrupt color change, very silty clay some sand, brown (10YR), mottled some gray (10YR).	
						SILTY CLAY: Very moist, gravel fragments, calcareous, oxidized (highly), sand partings.	
				ND		SILTY CLAY: Pale yellow/yellow (2.5Y), very moist at depth, sand with calcareous gravel fragments.	
-10						SILT, CLAY, AND SAND: Sand partings, calcareous, pale yellow (2.5Y), gravel fragments, oxidation, manganese partings.	
						CLAYEY SILT: Oxidation, brown (10YR).	
						SILT, CLAY, AND SAND: Sandy partings, sub-angular with gravel fragments, fine/medium sand, calcareous, oxidation, dark yellowish-brown (10YR).	
						SILT AND CLAY: Oxidation occurring in sand lenses, calcareous, medium grained, sub-rounded, olive-brown (2.5Y).	1340
						SILT AND CLAY: Platey, olive-brown (5Y), oxidized, sand in lenses, calcareous, medium sand, sub-angular.	
						SILT, CLAY, AND SAND: Olive-brown (5Y), oxidation occurring in sand lenses, medium-coarse sand, angular to sub-angular, calcareous.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-12 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILT, CLAY, AND SAND: Increase in sand content, highly calcareous, oxidized, medium grain, sub-rounded to sub-angular, olive-brown (2.5Y), cemented in various sizes of fragment.	
				ND		SILT, CLAY, AND SAND: As above, slightly platey.	
						SILT, CLAY, AND SAND: As above.	
						CLAY AND SILT: Silt partings, very stiff, moist, non-calcareous, olive-brown (2.5Y).	
						SILT, CLAY, AND SAND: Fine/medium sand, oxidized, sub-angular, slightly calcareous.	
-15						SILT, CLAY, AND SAND: Stiff, slightly platey, olive-brown (5Y), oxidation, calcareous, slightly moist.	
						NO RECOVERY	
						SILT AND CLAY: Pale yellow (2.5Y), dry, stiff, some oxidation, calcareous at 16' decrease at 16.3'.	
				ND		CLAY AND SILT: Increase in silt content, platey, pale yellow (2.5Y), oxidation, damp, stiff, non-calcareous.	1335
						CLAY AND SILT: As above, increase in fine sand, brownish-gray (10YR) lenses, stiff, damp, slight odor.	
						SAND: Abrupt color change, brown (10YR), rust nodules, cemented fragments, sand is fine to medium, highly calcareous, dry, sub-angular to sub-rounded, crumbles.	
						NO RECOVERY	
-20						CLAY AND SILT: Olive-brown (2.5Y), soft, moist, manganese little oxidation, slightly calcareous.	
						CLAY, SILT AND SAND: As above, increase in sand content, fine to medium sand, sub-angular, dry, crumbles, highly oxidized, highly calcareous.	
				ND		SILT, CLAYEY WITH SAND: Fine sand, olive-brown (2.5Y), cemented lenses, calcareous, slightly stiff, moist.	1330
						SILT, CLAYEY WITH SAND: As above, increase in sand content, medium to coarse sand, sub-angular to sub-rounded, highly calcareous, olive-brown (2.5Y).	
						SILT, CLAYEY WITH SAND: Fine sand, olive-brown (5Y), oxidized, some cementation throughout.	
						SILT, CLAYEY WITH SAND: As above, increase in medium to coarse sand content, sub-rounded, cementation, calcareous.	
						NO RECOVERY	
				ND		SILT, SAND, AND GRAVEL: Cemented fragments of gravel and fine sand, sub-angular, white (2.5Y), highly calcareous, weathered.	
						SILTY CLAY: Some fine sand, olive-yellow (2.5Y), oxidized, stiff, moist, non-calcareous.	
-25						SILT, CLAY, AND SAND: As above, increase in sand content (medium to coarse), sub-angular to sub-rounded, damp, calcareous in sand lenses, olive-yellow (2.5Y).	
						SILT, CLAY, AND SAND: With fine sand lenses, very stiff, damp, olive brown (2.5Y), calcareous in lenses.	
						CLAY AND SILT: With silt partings, minor sand (medium grained), sub-rounded, olive-brown to pale yellow (5Y), oxidation, calcareous in silty partings, silt stiff, moist.	
						CLAY AND SILT: As above with decreasing silt.	1325
						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-12 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILTY CLAY AND GRAVEL: Moist, some fine sand in lenses, grayish-brown (2.5Y), gravel calcareous.	
						SILTY CLAY: As above, no gravel.	
			ND			SILT, GRAVEL AND CLAY: As above with gravel, increase in sand content, medium grain.	
						SILT, CLAY, AND SAND: Medium sand, sub-rounded, slightly moist, oxidation, brown (10YR) and gray (5Y).	
-30						SILT AND CLAY: Minor fine sand, olive-brown (5Y), very stiff, moist.	
			ND				
						SAND, FINE TO MEDIUM: Weathered, fine to medium sand, sub-rounded, reddish-brown (5YR), white with silt and clay, trace pebble size fragments, highly calcareous.	
						SAND, FINE TO MEDIUM: As above, minor clay, crumbles easily.	1320
						SILTY CLAY: Wet, light-olive brown (2.5Y), fine sand.	
						SILTY CLAY: Damp, sand (fine to medium grained lenses), oxidized (sand lenses), olive (5Y).	
			ND				
						SILT, CLAY, AND SAND: Medium sand sub-rounded, damp, oxidation grayish-brown (2.5Y), sand highly calcareous.	
			ND			SILT, CLAY, AND SAND: Some sand, sub-rounded, fine-medium, oxidation, light brownish-gray (2.5Y), slightly moist.	
-35						SILT, CLAY, AND SAND: As above, little to no oxidation, dry, non-calcareous.	
						SILT, CLAYEY WITH SAND: With fine sand, oxidation, very stiff, damp, non-calcareous.	
						NO RECOVERY	
						SILTY CLAY: Wet, plastic, some coarse sand, brown (10YR).	
		ND				SILTY CLAY: Trace coarse sand, oxidized, slightly moist, very stiff, gray olive-brown (2.5Y).	1315
			ND			SILTY CLAY: Very stiff, olive yellow (2.5Y) with gray (2.5Y) layer, non-calcareous.	
						SILT, CLAY, AND SAND: Slightly stiff, light yellowish-brown (2.5Y), slightly oxidized.	
						SILT, CLAY, AND SAND: As above with cemented pebbles, highly calcareous.	
						SILT, CLAY, AND SAND: As above (37.3' - 38.5' interval).	
						SILT, SAND, CLAY & GRAVEL: Fine sand, pale yellow (2.5Y), very stiff, moist, trace oxidation at depth, increase in sand (medium to coarse), sub-angular, cobble size cemented fragments, crumbly.	
-40						SILTY CLAY AND GRAVEL: With lenses of medium sand, intermittent angular pebbles, very moist, oxidized, light olive-brown (2.5Y), calcareous in sand lenses.	
			ND			SILTY CLAY: Very stiff, damp, sporadic sand (fine to medium) lenses, light olive-brown (2.5Y), non-calcareous.	
		ND					1310

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-12 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND		SILTY CLAY: With trace fine sand, trace lenses of oxidation, very stiff, damp, oxidation lenses, calcareous.	
						SILT, CLAY, AND SAND: Fine to medium sand, light gray to white (5Y), slightly calcareous.	
						SILT, SANDY WITH CLAY: Wet, light gray to white (5Y), slightly calcareous.	
						SILT, CLAY, AND SAND: Same as 43.7' - 44' interval, including trace lenses of oxidation and cementation, cemented lenses, calcareous, dry, very stiff.	
-45				ND		SILTY CLAY: With trace sand, platey, stiff, damp, increasing silt and fine (medium) sand, light gray (5Y), very stiff.	
						SILTY CLAY: As above with calcite inclusion, crumbles.	
						NO RECOVERY	1305
						CLAY, SILTY WITH SAND: Fine sand, very stiff, olive (5Y), trace oxidation lenses, increase in sand with depth.	
		ND		ND		CLAY, SILTY WITH SAND: Fine sand (lenses), oxidized, light gray (2.5Y), crumbles.	
						CLAY AND SILT: Olive-brown (2.5Y), very stiff, hard, fine sand lenses, highly calcareous, dense.	
-50						SILTY CLAY: Very moist, soft, olive (5Y), some lenses of white chalky fine to medium sand, angular to sub-angular, highly calcareous, trace partings of silt/fine sand throughout.	
				ND		SILT, CLAY, AND SAND: With fine sand, dark brown-gray (2.5Y), with fine to medium sand, white (5Y), slightly calcareous, hard, dry.	
				ND		SILT, SANDY WITH CLAY: Yellow brown (10YR), oxidized, fine to medium sand, sub-rounded, calcareous, crumbles easily, damp, decrease of sand with depth.	1300
						SILT, CLAY, AND SAND: Very stiff, fine to medium sand, olive-brown (2.5Y), non-calcareous, oxidized in siltier areas, very hard, dense.	
				ND			
		ND				NO RECOVERY	
-55							
						CLAY, SILTY: Dense, hard clay with silt, oxidation present, olive-brown (2.5Y), some fine	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-12 Pg. 5

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND		sand present, slightly calcareous.	1295
						SILTY SAND: Fine sand, trace clay in lenses, dry, crumbles easily, light olive-gray (5Y), moist, slightly calcareous.	
						NO RECOVERY	
-60				ND		SILTY CLAY: Some fine sand occurring in oxidated areas, very soft, very moist, olive-gray (5Y), non-calcareous.	
						SILT, SANDY WITH CLAY: Fine sand, clay in lenses, very soft, moist, crumbles easily, olive-gray (5Y), oxidation, non-calcareous.	
				ND		SILT, SANDY WITH CLAY: As above, increase in moisture content.	
						SILT, CLAY, AND SAND: Fine sand, predominantly occurring in oxidized lenses, laminated, white (siltier layers) alternating with light brownish-gray (2.5Y), moist.	1290
						SILT, CLAY, AND SAND: With fine sand increasing with depth, light gray (2.5Y), hard, dry, no oxidation, clay in lenses throughout, light olive-brown (2.5Y), non-calcareous.	
						NO RECOVERY	
-65		ND					1285

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-13

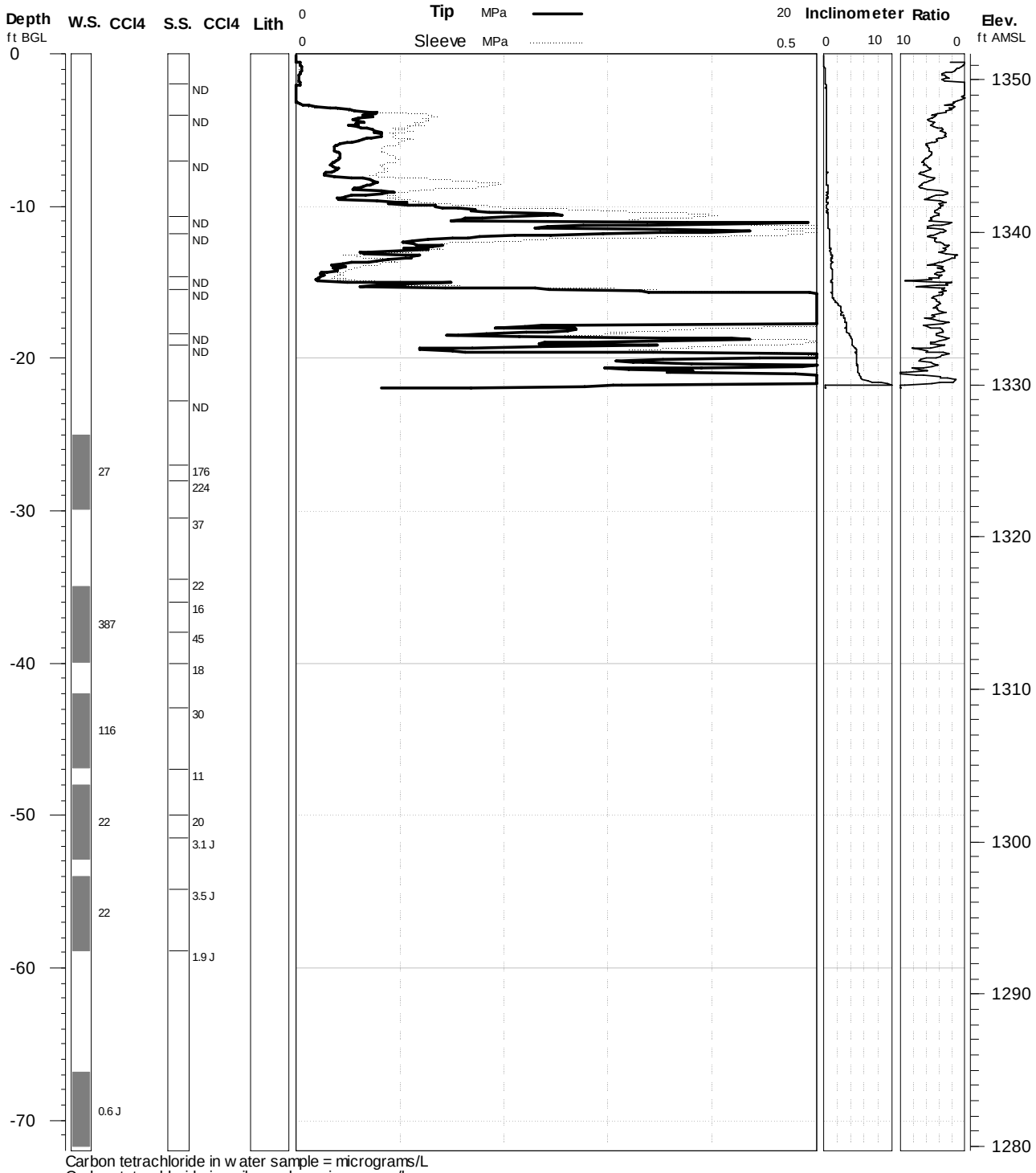
Project: Navarre

Elevation: 1351.73 ft.

Geologist: Lorraine LaFreniere

Depth: 71.82 ft. BGL

Log Date: 5/7/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-14

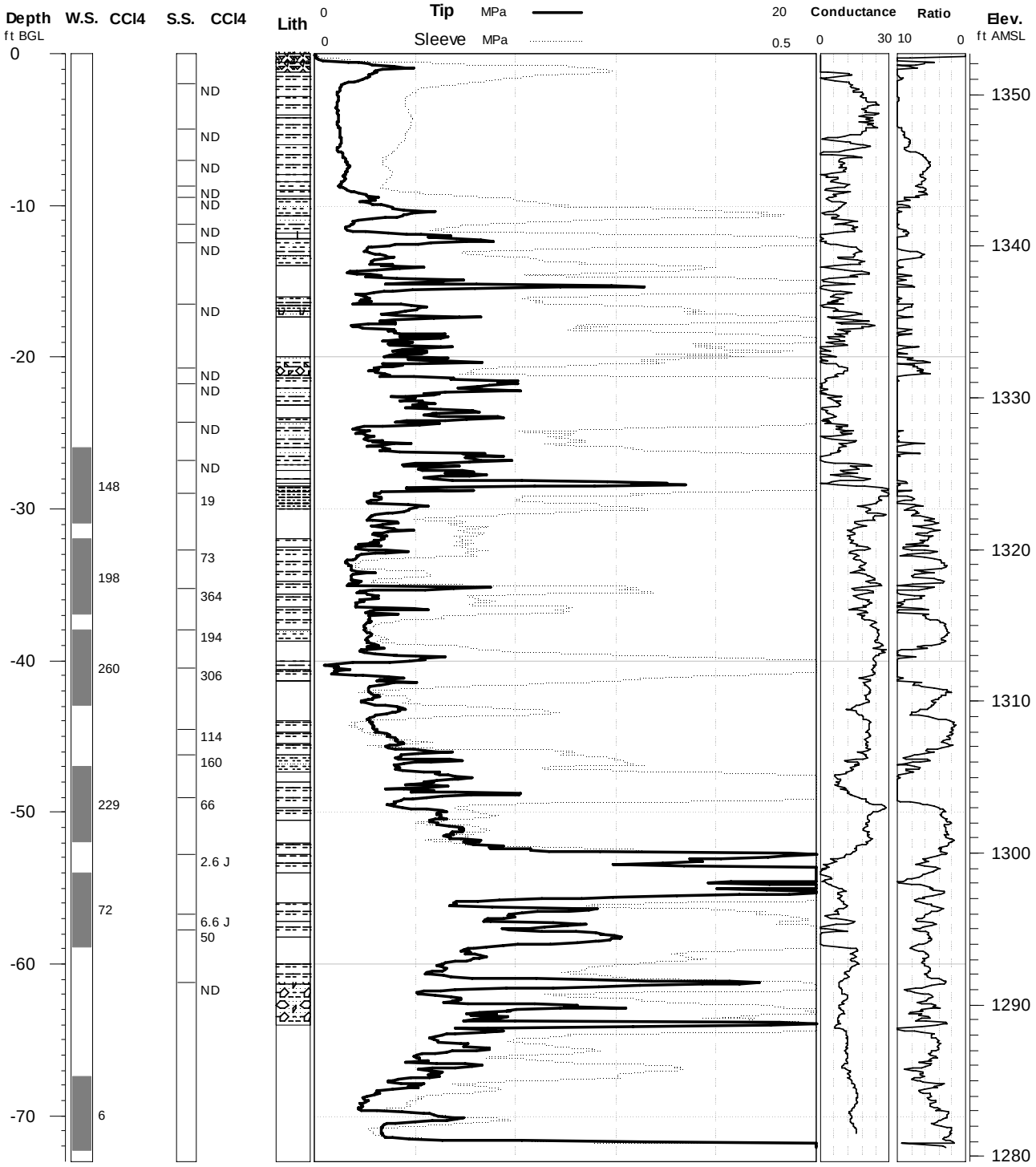
Project: Navarre

Elevation: 1352.68 ft.

Geologist: Lorraine LaFreniere

Depth: 72.4 ft. BGL

Log Date: 5/5/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-14

Project: Navarre

Elevation: 1352.68 ft.

Geologist: Lorraine LaFreniere

Depth: 72.4 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						FILL: Sand, clay, gravel - disturbed soils.	
						FILL: Mixed fill and clay, silty clay - black (2.5Y), stiff, dense, damp, non-plastic, non-calcareous.	
			ND			CLAY, SILTY: Black (2.5Y), damp, non-plastic to slightly plastic, non-calcareous.	1350
						CLAY, SILTY: Gradual color change, clay, silty, damp, slightly to non-calcareous, dark grayish-brown (2.5Y).	
						SAND AND CLAY: Thin zone or lense of poorly sorted, dry, sand - fine to very coarse grained in layer. Highly calcareous clay unit, light yellowish-brown (2.5Y).	
-5			ND			CLAY, SILTY: Damp, dense, hard, non-plastic, brown (10YR), unit variably siltly with evidence of selective oxidation associated with the coarse silt zones.	
			ND			CLAY, SILTY: As above with increase in oxidation and slight color change to dark brown (10YR), non-calcareous.	1345
						CLAY, SILTY: Damp, hard, non-plastic, dark yellowish-brown (10YR), non-calcareous.	
			ND			CLAY WITH SAND: Color change - clay with minor fine sand inclusions occassionally iron oxide nodules - tiny, scattered throughout, damp, hard and non-plastic, non-calcareous, light olive brown (2.5Y).	
			ND			CLAY WITH SAND: As described above with color change to dark grayish-brown (2.5Y), non-calcareous.	
-10						CLAY, SILTY WITH SAND: With inclusions of coarse silt to fine sand, oxidized throughout, light olive-brown (2.5Y), silt/sand areas pale yellow (2.5Y), damp, hard and non-plastic, non-calcareous.	
			ND			SAND, CLAYEY: Moist to wet, oxidized, highly calcareous, sand - very poorly sorted ranging from fine to very coarse grained, partially friable, yellowish-brown (10YR).	
						CLAY, SILT AND SAND: Light yellowish-brown (2.5Y), clay with lenses of coarse silt to fine sand throughout, iron oxide nodules occassionally, sand lenses olive-yellow (2.5Y), highly calcareous.	
			ND			SANDY LIMESTONE: Cobble - indurated, hard, vuggular porosity lined with calcite crystals, generally light gray (2.5Y), highly calcareous.	1340
						CLAY, SILTY WITH SAND: Upper (12.2' - 12.3') transition zone predominantly sand to coarse grained in minor clay matrix, transiton into dominantly light olive-brown oxidized clay, silty with sand inclusions and stringers, evidence of minute iron oxide nodules. Sand poorly sorted, fine to medium grained.	
						CLAY, SANDY: Very sandy throughout, partially indurated sandstone, highly calcareous, predominantly fine sand, light yellowish-brown (10YR).	
-15						NO RECOVERY	
			ND			CLAY, SANDY WITH SILT: Coarse silt to fine sand with trace of medium grained sand, light olive-gray (5Y). Clay fairly calcareous, lense of sand and silt, highly calcareous.	
						CLAY AND SILT: Coarse silt inclusions, damp, hard, non-plastic, olive (5Y), general matrix	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-14 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						is non-calcareous, silt areas calcareous.	
						SAND AND GRAVEL: Loose, sand (fine to coarse grained), sub-angular, indurated cemented sandstone gravel, calcite cemented, highly calcareous, pale olive (5Y).	1335
						NO RECOVERY	
-20						CLAY, SAND WITH GRAVEL: Moist to damp clay with sand and granular gravel. Gravel is cemented sands and clays. Sand fine grained to very coarse - poorly sorted, abundant coarse silt, variable clay content, calcareous. Light yellowish-brown (2.5Y).	
				ND			
						CLAYEY SILT: Gradational contact with underlying partially laminated, oxidized clayey silt. Highly calcareous, olive-yellow (2.5Y).	
				ND			
						CLAY, SILT AND SAND: Clay matrix with significant sand content, faint lamination in areas - minor iron oxide in layers and more porous intervals. Highly calcareous, light yellowish-brown (2.5Y).	1330
						NO RECOVERY	
				ND		CLAY, SANDY: Minor evidence of oxidation, evidence of abundant cementation (calcareous), white to light gray (2.5Y), contact zone, highly calcareous.	
-25						CLAY, SILT AND SAND: Very sandy and silty clay - partially friable, sand is sub-rounded and coarse grained, variable lithology, damp/variable clay content throughout unit, olive(5Y).	
						CLAY, SILT AND SAND: As described above with general increase in sand content. Evidence of laminations defined by layers of white (5Y) interbedded fine sands with olive (5Y) to olive-gray (5Y) sands, slight oxidation.	
				ND			
						SILT, CLAYEY: Damp with calcite cemented zones. Highly calcareous throughout, minor sand to medium-coarse grained, light yellowish-brown (2.5Y).	1325
						NO RECOVERY	
		148				CLAY, SILT AND SAND: Clay matrix variable, fine sand and coarse silt. Highly calcareous, light yellowish-brown (2.5Y). Dry.	
				19		CLAY: With cemented cobble - calcareous, highly calcareous matrix.	
						CLAY AND SILT: Silt inclusions throughout, evidence of obvious interstitial porosity - trace of iron oxide, possible minute pyrite present. Minor sand (medium) present, light olive-brown (2.5Y), damp, highly calcareous.	
-30						NO RECOVERY	
						CLAY, SILTY: Moist to wet, moderate plasticity, light yellowish-brown (10YR).	
				73		CLAY, SILTY: Silt is coarse with trace sand, trace gravel. Oxidized, selective iron oxide, calcareous, damp. Silt and sand content increases with depth. Light olive-brown (2.5Y).	1320
		198					
-35				364		CLAY, SILTY: With minor stringers of white fine sand, oxidized selectively in clays. Damp, hard, dense, non-plastic, olive-brown (2.5Y).	

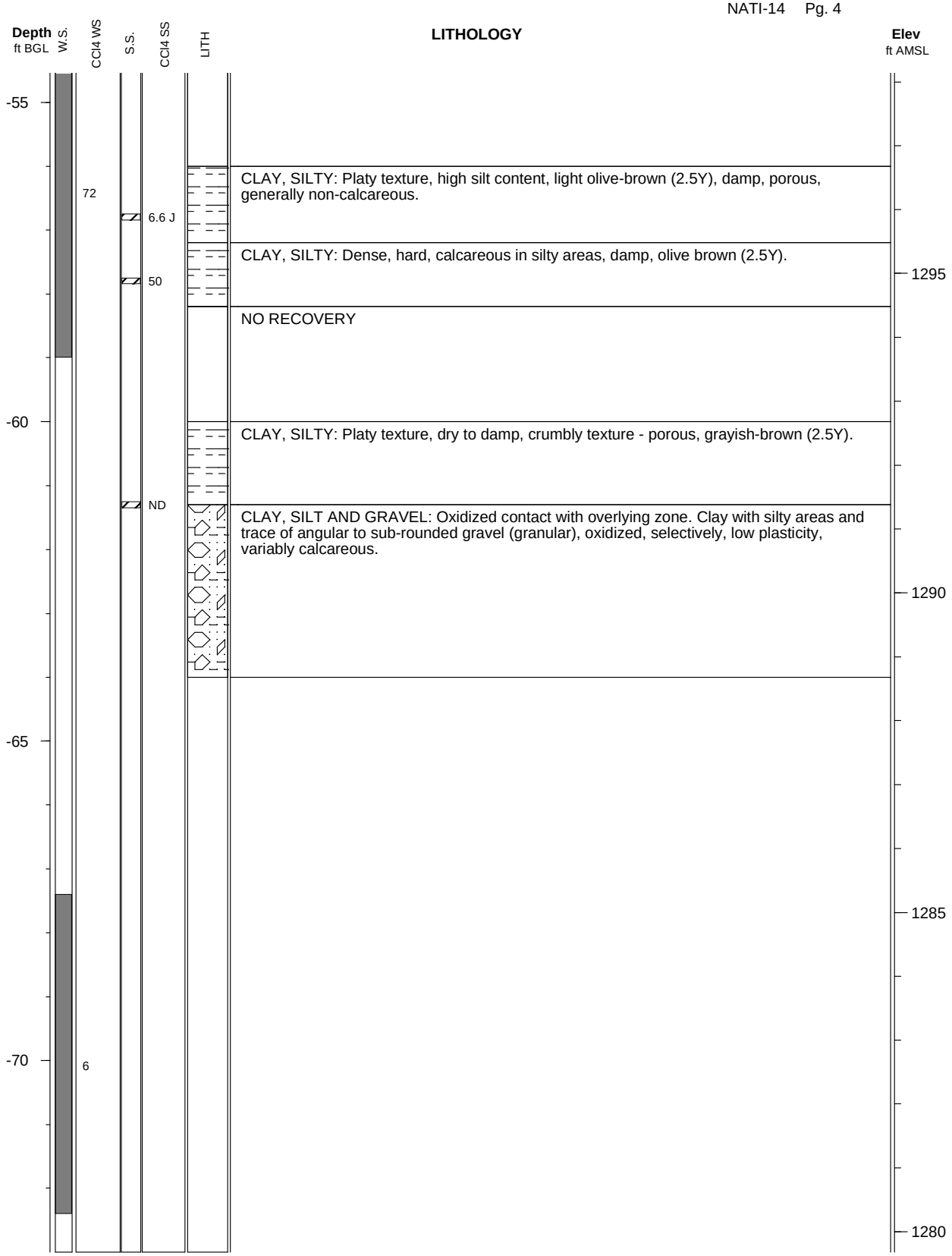
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-14 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						SILTY CLAY: Contact with very silty clays, selectively oxidized, olive-brown (2.5Y), calcareous. Damp.	
						CLAY, SILTY: Oxidized in part, finely laminated particularly at base of unit - laminae defined by very thin layer of very fine sand, olive-brown (2.5Y), variably calcareous.	1315
				194		CLAY, SANDY: Fine sand where present and iron oxide coated grains in part. Light gray (2.5Y), highly calcareous.	
						NO RECOVERY	
-40		260				CLAY, SILTY WITH SAND: Minor sand, damp, light brownish-gray (2.5Y), calcareous.	
				306		CLAY, SILTY: With inclusions and lenses of silt - some coarse grained, light olive-brown (2.5Y) matrix, highly calcareous, evidence of oxidation.	
						NO RECOVERY	1310
				114		CLAY, SILTY: With slight mottling, damp, hard, dense, variably, calcareous, light olive-brown (2.5Y).	
-45						CLAY, SILTY: Platy in appearance, selectively oxidized especially in coarse silts, slightly calcareous.	
						CLAY, SILTY: Oxidized, hard, dense, damp. Highly calcareous in silty inclusions, slightly calcareous in clay matrix, light olive-brown (2.5Y). Damp.	
				160		CLAY AND SAND: Dense, hard, partings of cemented clean sand - medium-grained, sub-rounded, minor evidence of thin layers of iron oxide. Highly calcareous, damp, light gray (2.5Y).	
						NO RECOVERY	1305
		229		66		CLAY, SILTY: Silt occurs in stringers horizontally throughout, slit strings selectively oxidized and calcareous, damp, light olive-brown clay (2.5Y). Matrix clays none to very slightly calcareous.	
-50						CLAYEY SILT: To silty clay, damp, dense and very hard, silt-fine grained, variably calcareous, very hard zone, light gray (2.5Y).	
						NO RECOVERY	
						CLAY, SILTY: Coarse silt, unit platy and broken in appearance, light brownish-gray (2.5Y). Dry to damp, calcareous.	1300
				2.6 J		CLAY: Slightly oxidized, dense, hard, damp, minor white (2.5Y) silt stringers, variably calcareous, light yellowish-brown (2.5Y).	
						CLAY, SILTY: Selectively oxidized, broken and platy, light brownish-gray (2.5Y), damp, hard, dense clay fragments.	
						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-14 Pg. 4



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-16

Project: Navarre

Elevation: 1352.19 ft

Geologist: Lisa Larsen

Depth: 71.96 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						FILL: Gravel, sand, clay mix.	
						FILL: Clay, silt (dark gray 2.5YR), dense, stiff, noncalcareous.	
			ND			CLAY, SILTY: Very dark grayish-brown (10YR), dense, slightly plastic, noncalcareous, gradual color change to dark grayish-brown (10YR) at 3.5 ft.	1350
			3.3J				
-5			ND			CLAY, SILTY: Brown (10YR), dense, slightly plastic, occasional lens of oxidation.	1345
						CLAY, SILTY: Dusky red (2.5YR), oxidized in parts, dense, slightly plastic.	
						CLAY, SILTY: Dark yellowish-brown (10YR), slightly oxidized, trace sandstone fragments, slightly plastic, dense.	
-10			ND			CLAY, SILTY: Light olive brown (2.5Y), increase in silt content, highly oxidized, slightly calcareous.	
			ND				
			ND			CLAY, SILTY: Pale olive (5Y), sandstone fragments, with trace weathered shale, friable, calcareous.	1340
			ND			CLAY, SILTY: Pale olive (5Y), oxidized secondary crystalization along veins, evidence of roots, dense, noncalcareous.	
						SILT, CLAYEY: Pale yellow (5Y), coarse silt to very fine sand, slightly oxidized, calcite crystals (trace), calcareous.	
-15						NO RECOVERY	
			ND			CLAY, SILTY: Pale yellow (2.5Y), sandstone fragments, poorly cemented, trace fine sand - coarse silt, calcareous, white nodules.	1335

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-16 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				ND		SILT, CLAYEY: Pale yellow (2.5Y), dense, coarse silt - fine sand, variable lense of fine sand and calcite crystals, calcareous.	
						NO RECOVERY	
-20						SILT, CLAYEY: As in 17.7-18.5 ft. BGL.	
				ND			1330
						NO RECOVERY	
						SILT WITH CLAY: Trace clay, pale yellow (2.5Y), coarse silt - trace fine sand, sandstone fragments - poorly cemented, calcite crystals, calcareous.	
-25				ND		CLAY, SILTY: Light yellow brown-olive yellow (2.5Y), dense coarse silt to trace fine sand, oxidized upper 0.75 ft., calcareous.	
		851				NO RECOVERY	1325
						CLAY, SILTY: As in 25-26.5 ft. BGL.	
				272		CLAY, SILTY: Pale yellow (2.5Y), dense, coarse silt, slight oxidized lower 0.5 ft.	
-30						SILT, CLAYEY & SANDY: Trace fine sand, pale yellow (2.5Y) oxidized throughout, calcite crystals.	
						NO RECOVERY	
						CLAY, SILTY: Light gray to light olive brown (2.5Y), sandstone and limestone fragments at 32.5-33 ft.	1320
				92		CLAY, SILTY: Pale yellow (2.5Y), stiff partings, show oxidation, some laminations (irregular) oxidation increases with depth, coarse silt, calcareous.	
		866					
-35						CLAY, SILTY: Light yellowish-brown (2.5Y), coarse silt, oxidized in parts, calcareous.	
				36			

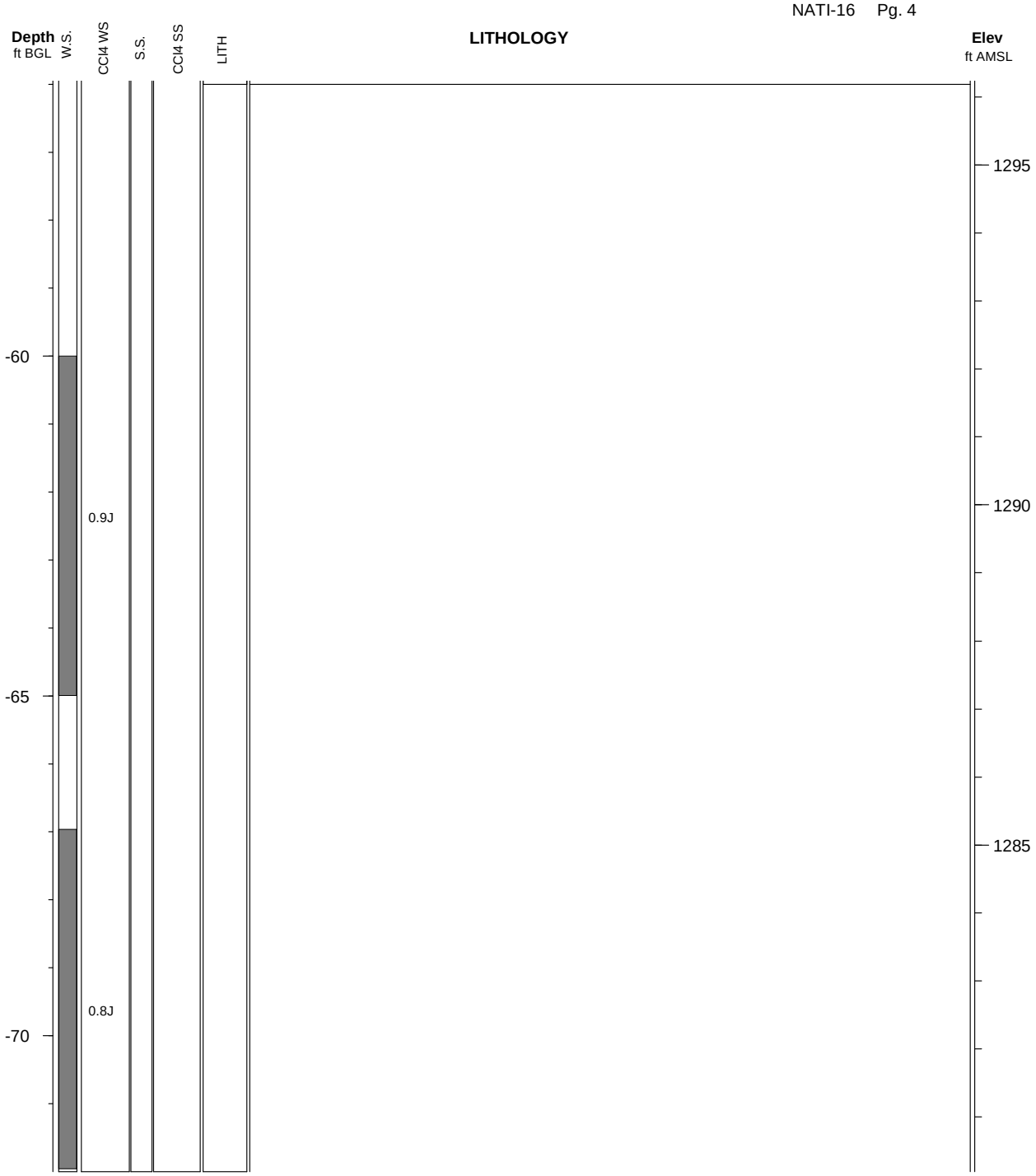
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-16 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
							1315
				35		CLAY, SILTY: Light brownish-gray to white in parts (2.5Y), calcareous coarse silt, calcareous.	
						NO RECOVERY	
-40						CLAY, SILTY: Light yellowish-brown (2.5Y), coarse silt, calcareous, oxidized throughout, calcareous, dense.	
		189					
				454			1310
						CLAY, SILTY: Light brownish-gray (2.5Y), coarse silt, slightly oxidized, calcareous.	
-45				23			
						CLAY, SILTY: Light gray (2.5Y), calcite crystals, coarse silt trace fine sand in upper 0.5 ft., dense lower 1.5 ft., evidence of moisture at 45.75 ft.	
						NO RECOVERY	1305
		56				CLAY, SILTY: Light gray with some white (2.5Y), dense with calcite crystals along veins, coarse silt, calcareous.	
-50				3.1J			
						CLAY, SILTY: Gray (2.5Y), with some highly weathered shale fragments.	
						CLAY, SILTY: Yellow (2.5Y), coarse silt, oxidized, some platy structure, gradual color change with depth (light yellowish-brown 2.5Y), calcareous.	1300
				3.8J			
						NO RECOVERY	
-55							

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-16 Pg. 4



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-17

Project: Navarre

Elevation: 1351.54 ft.

Geologist: Lorraine LaFreniere

Depth: 65 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						FILL: Road gravel.	
						CLAY, SILT AND GRAVEL: Mixed clay and road gravel - probably brought to site and disturbed.	1350
						CLAY, SILTY: Dense, hard, black (10YR), non-calcareous.	
				ND			
						CLAY, SILTY: Increasing silt content with depth, damp, dense, hard, dark grayish-brown (10YR), non-calcareous, non-plastic.	
-5						CLAY, SILTY: Marked increase in silt content from overlying unit. Selectively oxidized in areas of concentrated coarse silt, damp, non-calcareous.	
				ND			
						NO RECOVERY	1345
						CLAY, SILTY: Dense, hard, damp, non-plastic, areas of selective oxidation - almost mottled in appearance, very dark grayish-brown (10YR).	
						CLAY, SILTY: As above with marked increase in silt content, slight oxidation, non-calcareous.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-17 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						CLAY, SILTY: Dense, hard, damp. Areas of selective oxidation not related to silt content.	
				ND		CLAY, SILTY WITH SAND: Gradational contact to clay, variably silty with sand (fine to medium grained) and pebble-sized gravel to 20 mm in length. Sand and gravel occurs as layers in clay matrix. Entire unit heavily oxidized. Sand and silt areas highly calcareous. Clay matrix non-calcareous, yellowish-brown (10YR).	
-10						SILT/CLAY/SAND/GRAVEL: Basal content zone. Silty clay with medium grained sand and gravel, highly calcareous and heavily oxidized, yellowish-brown (10YR) and dark yellowish-brown (10YR), intensely oxidized zone. Highly calcareous.	
						CLAY, SILTY WITH SAND: Sharp contact with clay, silty with sand, dense, hard, dry to damp, fine sand throughout matrix clays, highly calcareous, olive (5Y).	
						NO RECOVERY	1340
						CLAY, SILTY WITH SAND: Platy texture, broken, dry. Increasing sand content with depth, sand lenses in clay, olive (5Y), moderately calcareous.	
				ND		CLAY, SILTY: Abrupt contact with underlying clay, silty, olive (5Y), dense, hard, dry to damp, occassional laminae of calcite cemented quartz sand grains white to clear in color, non-calcareous clay.	
-15						NO RECOVERY	
				ND		CLAY, SILTY WITH SAND: Areas of sand (fine to medium grained) in clay matrix - coarse silt in areas, highly calcareous cemented quartz sand, dry to slightly damp, pale olive (5Y).	1335
				ND		CLAY AND SILT: Trace pebbles with depth, damp - inclusions of silt throughout, coarsening with depth, highly calcareous.	
						SILT, CLAYEY: Dry, loose, coarse silt, highly calcareous, laminated clay layers in disaggregated clay, platy layers, pale olive (5Y).	
						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-17 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
-20						CLAY,SILT,SAND & GRAVEL: "Rubble zone", coarse silt to fine sand. Sand, angular to sub-angular, medium to coarse grained, granular to pebble-sized gravel. Damp to moist, grayish-brown (2.5Y), clay, highly calcareous, clear silt grains, basal contact - thin layers of fine sand.	
						CLAY, SILTY: With lenses or inclusions of silt-some coarse grained. Clay generally non-calcareous, silt areas calcareous, light olive-brown (2.5Y).	
				ND		CLAY, SILTY: As described above with marked increase in silt content. Clay, iron oxide layers with associated fine grained, clear quartz sand, calcareous.	
						CLAY, SILTY WITH SAND: With faint laminations of silt and fine sand - oxidized. Highly calcareous, light yellowish-brown (2.5Y), damp.	1330
						CLAY AND SAND: Fine sand throughout, olive-yellow (2.5Y), highly calcareous, damp.	
						NO RECOVERY	
				2.6 J		CLAY, SILTY: Silt inclusions throughout, damp to moist, calcareous, light olive-brown (2.5Y), crumbly texture in part.	
-25						CLAY, SILTY: With occasional inclusions of coarse silt, clay non-calcareous, silt areas - calcareous. Light olive-brown (2.5Y), clay, damp, dense, hard.	
		44		15		CLAY, SILTY: Silt inclusions throughout, calcareous, light olive-brown (2.5Y), minor evidence of iron oxide.	1325
						NO RECOVERY	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-17 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				31		CLAY, SILTY: Dense, hard, non-plastic, light yellowish-brown (2.5Y). Layers occassionaly and calcite cementation, evidence of oxidation increasing with depth.	
-30						NO RECOVERY	1320
						CLAY, SILTY WITH SAND: Minor sand, sand medium to coarse grained, very plastic, wet, sand content and size fraction increasing with depth, calcareous, light olive-brown (2.5Y).	
				ND		CLAY, SAND AND GRAVEL: Wet to saturated, very plastic, marked increase in sand content and size fraction to coarse grained, angular gravel to 10 mm, calcareous, light olive-brown (2.5Y).	
-35		1.5				NO RECOVERY	
						CLAY, SAND AND GRAVEL: Mixed zone with clay matrix containing medium to coarse sand. Gravel (cemented sandstone) highly calcareous, light olive-brown (2.5Y).	
						CLAY, SAND AND GRAVEL: Sand fine to very coarse grained in clay matrix and inclusions. Gravel pebble-sized, angular, highly calcareous, moist to wet, clayey, plastic.	1315
						SAND, CLAY AND GRAVEL: Limited clay matrix with loose sand and pebbles-sized gravel. Pebbles (cemented sandstone) matrix sand, very poorly sorted, fine to very coarse grained, moist, light yellowish-brown (2.5Y).	
						CLAY, SANDY: Thin zone, light gray (2.5Y), highly calcareous, moist, trace minute iron oxide, nodules.	
				ND			

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-17 Pg. 5

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						CLAY, SILTY WITH SAND: Inclusions - medium grained sand, light yellowish-brown (2.5Y), damp, calcareous.	
						CLAY, SILTY WITH SAND: Sand in inclusions within silty clay matrix, calcareous in silt, sand areas, light olive-brown (2.5Y), damp.	
						CLAY, SILTY WITH SAND: Medium grained and minor angular pebbles (gravel), light yellowish-brown (2.5Y), moist.	
						NO RECOVERY	
-40						CLAY AND SAND: Highly calcareous, moist, plastic, olive-brown (2.5Y).	
						CLAY, SILTY: With trace of gravel, non-plastic, olive-brown (2.5Y), stiff, hard, dry, minor silt in small lenses, calcareous in silt bearing areas.	
		1.7		10		CLAY, SILTY: To silt clayey, coarse silt to fine sand, calcareous - variable, trace pebble-sized angular gravel, dry to damp, light olive-brown (2.5Y).	1310
						CLAY, SILTY: Dense, hard with silt inclusions throughout, some laminae defined by silt showing evidence of oxidation, highly calcareous in silt areas, damp.	
						CLAY, SILT AND GRAVEL: As above with minor angular gravel, dry.	
						CLAY, SAND WITH GRAVEL: To sand, clayey, moist, slight oxidation, sand fine to coarse grained with granular gravel, angular, light olive-brown (2.5Y).	
						CLAY, SILTY: With angular clay clasts, dry to damp, highly calcareous, olive (5Y).	
-45				ND		CLAY: Chalky in appearance, damp, white (5Y), minor iron oxide, minute nodules, small lenses of coarse silt, highly calcareous.	1305

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-17 Pg. 6

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						NO RECOVERY	
		1.1				CLAY, SILTY: Dense, hard, moderately calcareous in part, damp, non-plastic, minor evidence of oxidation, olive (5Y).	
				ND		CLAY: Contact with overlying clay is highly calcareous and dense, silty clay unit increase numbers of thin silt stringers, olive (5Y).	
						CLAY: Color change to white (5Y), very fine grained clay and almost chalky in appearance. Highly calcareous with areas of coarse silt, some oxidation. Dessication cracks with fine sand, pale olive (5Y).	
-50						CLAY, SILTY WITH SAND: Faintly laminated inclusions of coarse silt to medium grained sand, trace oxidation, clay, silty, faintly calcareous, pale olive (5Y), silty areas - pale yellow (5Y), damp.	
						NO RECOVERY	1300
						CLAY, SILTY: Damp, silt layering, faint platy texture, selectively oxidized.	
						CLAY: Transition zone - between silty clay above and clay dominant unit below. Platy texture in part, oxidized selectively, dry, crumbly, pale olive (5Y) and olive-gray (5Y).	
				2.1 J		SILTY CLAY: Olive-yellow (5Y), dry, contact layer grading into very, silty clay above, selectively oxidized as above with greater clay fraction.	
						NO RECOVERY	
-55		2.5					
						CLAY, SILTY WITH SAND: Platy texture pronounced, dry, coarse silt with fine sand, olive (5Y), non-calcareous.	
				ND			1295

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-17 Pg. 7

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						CLAY: Marked reduction in silt content, dense, hard, non-plastic, olive (5Y), damp, non to slightly calcareous.	
						NO RECOVERY	
-60							
							1290
		0.5 J					
-65							

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-22

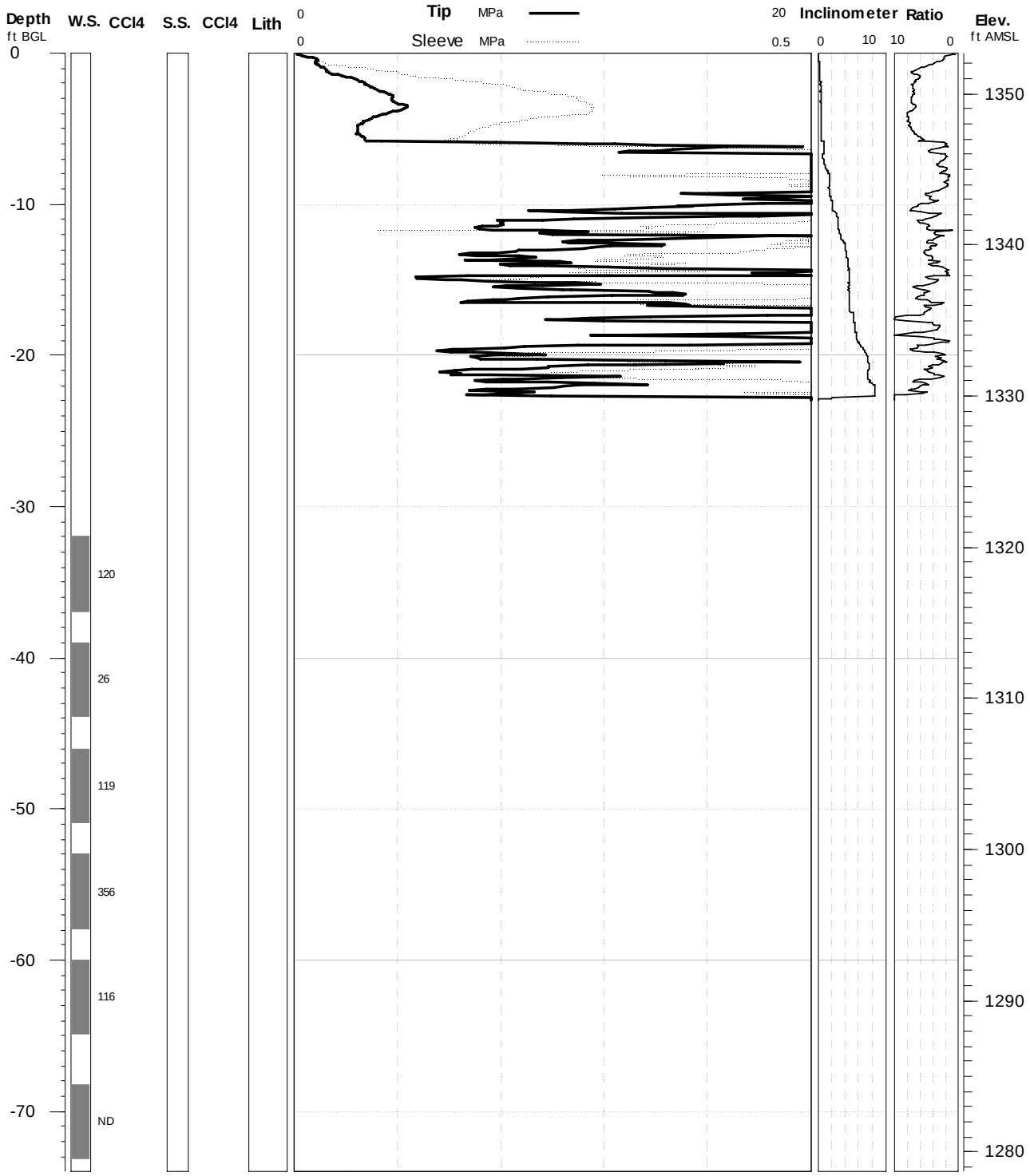
Project: Navarre

Elevation: 1352.68 ft.

Geologist: Lorraine LaFreniere

Depth: 73.25 ft. BGL

Log Date: 5/9/2006



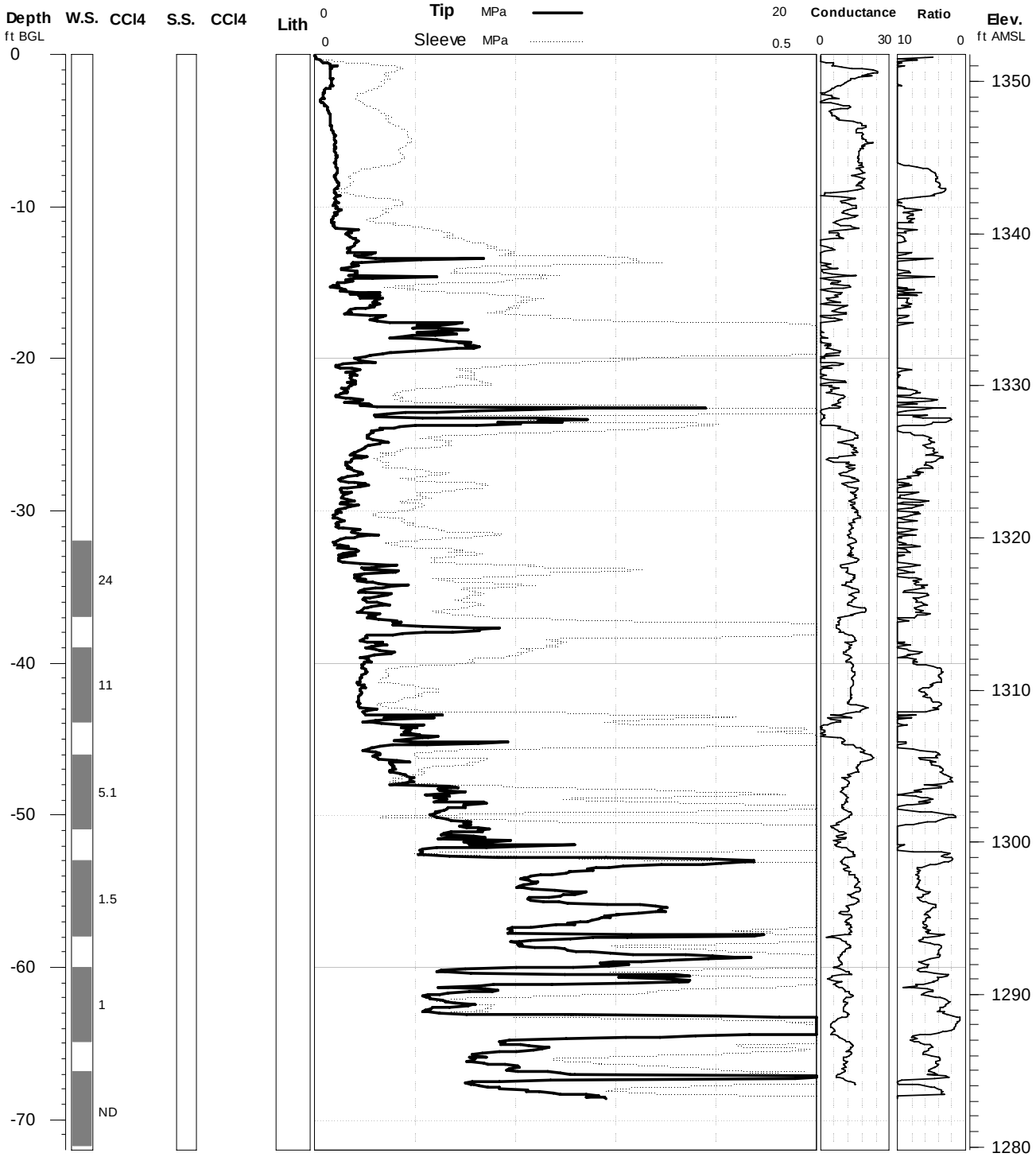
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-23

Project: Navarre **Elevation:** 1351.79 ft.

Geologist: Lorraine LaFreniere **Depth:** 71.8 ft. BGL **Log Date:** 5/10/2006



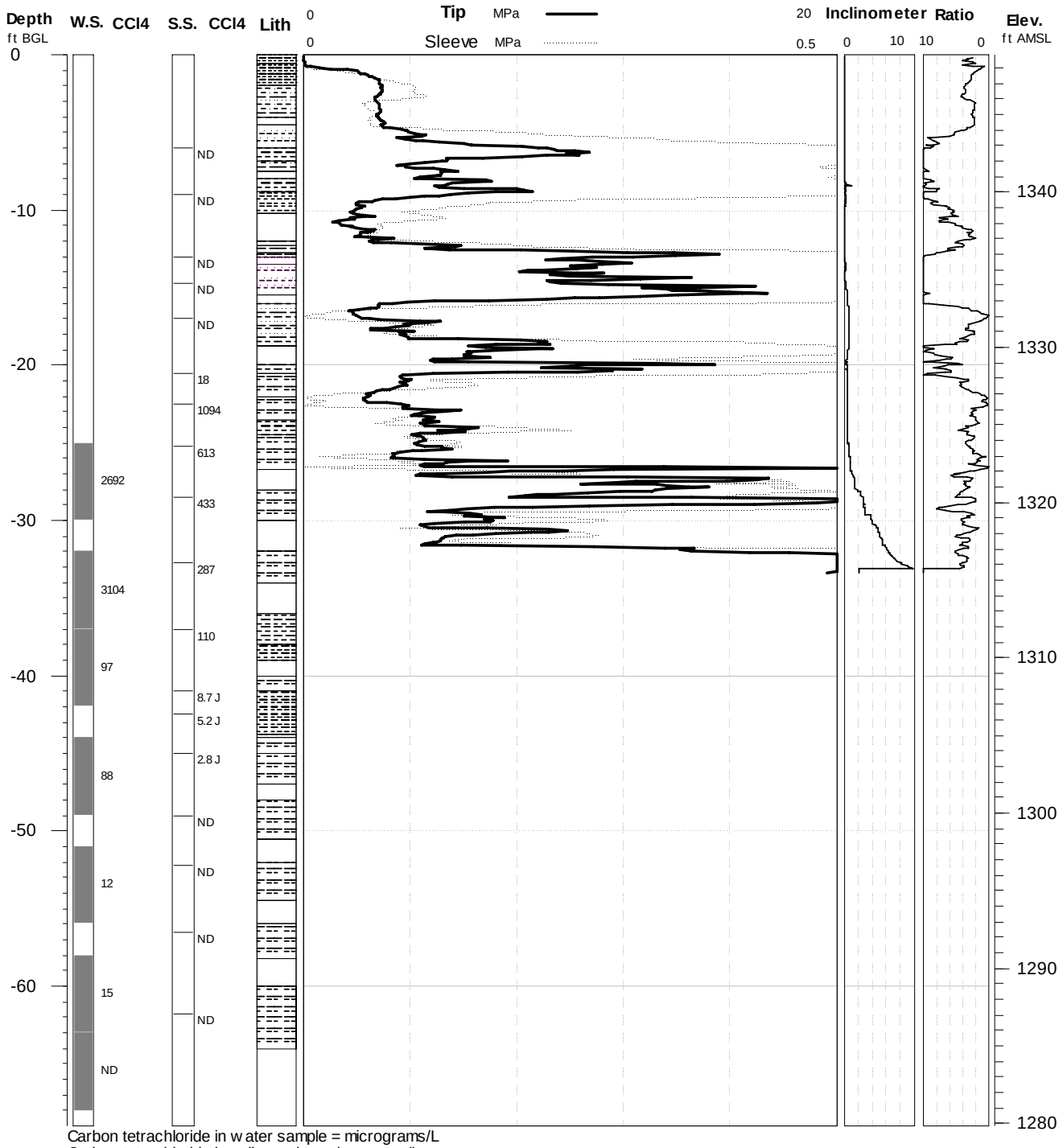
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-28

Project: Navarre **Elevation:** 1348.85 ft.

Geologist: Lorraine LaFreniere/Lisa Larsen **Depth:** 68.03 ft. BGL **Log Date:** 5/18/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-28

Project: Navarre

Elevation: 1348.85 ft.

Geologist: Lorraine LaFreniere/Lisa Larsen

Depth: 68.03 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY AND SILT: Very silty, with obvious porosity; damp, and non-calcareous, light olive brown (2.5Y).	
						CLAY AND SILT: With abundant coarse silt; non calcareous, slight color change to very slightly oxidized light olive brown (2.5Y). A trace of interbedded calcareous sandstone inclusions.	
						CLAY AND SILT: Very silty; silt is slightly oxidized to a dark yellowish-brown (2.5YR); it is non-calcareous in nature and some fine sand may be present, included with the coarse silt. Platy structure to the clay. Abrupt color change to the underlying unit.	
						CLAY, SILTY WITH SAND: Very silty with fine sand, crumbly in texture, increased oxidation with depth; generally noncalcareous with point inclusions of calcareous material; the overall color is dark yellowish-brown (10YR), but darker than the overlying unit and more highly oxidized. Platy nature to the clay.	1345
						CLAY, SILTY: Color change; lithologic change; clay matrix silty, but markedly less so than units above; oxidized silt in isolated inclusions scattered throughout this unit. Minor iron oxide nodules (very tiny) throughout. Damp, dense, hard clays; color very dark grayish brown (10YR); non-calcareous.	
-5						SILT, SANDY: Minor fine sand; occasional coarse sand, angular to sub-angular; inclusions of very coarse-grained calcite; slightly oxidized throughout; evidence of nodules scattered throughout in areas of black oxidation; in general the unit is siltier with depth. Unit extremely calcareous. Gradational contact with underlying clay sequence, a color change marked in the core. Very dark grayish-brown (10YR), damp.	
				ND		SILT AND CLAY: With inclusions of clay material; increasingly lighter in color; oxidized with unoxidized clay inclusions; contact with the underlying clay sequence gradational; unit highly calcareous as above, color a pale yellow (2.5Y) highly calcareous;	
						CLAY, SILTY WITH SAND: Extremely silty with fine sand; occasional medium grain sand, subangular; inclusions of pure calcite crystals scattered throughout, some reaching 8mm in length; highly calcareous matrix also and color light yellowish-brown to olive yellow (2.5Y).	
						NO RECOVERY	
						SILT AND CLAY: Very clayey with inclusions; color light olive gray (5Y); highly calcareous; increasing clay rich matrix with depth. Damp.	
				ND		SILT: With silty sand, or sandy silt with clay; sand to medium grained; possibly some trace of coarse grains; subangular, color pale yellow (2.5Y); highly calcareous. Damp.	1340
-10						NO RECOVERY	
						SILT, CLAYEY WITH SAND: Unless noted otherwise, these samples are damp. Contact zone with unrecovered section at 12 ft; the first 4-in of the section appears to be silt, clayey, with sand, occasional sand and a trace of granular gravel; highly calcareous; very pale	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-28 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
						yellow in color (2.5Y) damp to dry in nature.	
				ND		CLAY, SILTY WITH SAND: With sand inclusions; silty clay in nature with minor evidence of laminations that are highlighted by iron oxide material. The sand ranges from fine to coarse grained, subangular, subrounded in nature; this unit is damp to moist and calcareous. Color light yellowish-brown (2.5Y); highly calcareous.	
						CLAY, SANDY WITH SILT: Laminations become increasingly obvious in this very silty and sandy clay; laminae are defined by an increased content of sand and also by more iron oxide material; unit is highly calcareous and variable in terms of its clay content; units becoming increasingly sandy with evidence of calcareous inclusions. Damp to moist.	1335
-15				ND		SILT AND SAND: Predominantly fine to some medium grained; somewhat friable in nature with some clay content, becoming increasingly so with depth; unit is damp to dry, still showing some sand and oxidation defined laminae, decreasing in occurrence markedly with depth. Unit is highly calcareous. Pale yellow in color (2.5Y).	
						SILT AND SAND: Calcite crystals, white-gray (2.5Y), sandstone fragments, some calcite crystals, vuggy, trace oxidation, sand is very fine - fine, calcareous.	
						NO RECOVERY	
						CLAY, SILT AND SAND: Trace fine sand, yellow (2.5Y), calcite crystals throughout, silt clasts, carbonate along viens, calcareous.	
				ND			
						NO RECOVERY	1330
-20						CLAY, SILT AND SAND: Same as 16ft. - 18.75ft.	
				18		SILTY CLAY: Pale yellow (2.5Y), slightly laminated, oxidized, silt is coarse.	
				1094		SILTY CLAY: Pale yellow (5Y), calcite crystals, vuggy.	
						SILT AND CLAY: Pale yellow (5Y).	1325
-25				613		SILTY CLAY: Olive yellow (2.5Y) grading to pale yellow (5Y), irregular laminations, oxidized, silt increase with depth, calcareous.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-28 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
		2692				NO RECOVERY	
				433		SILTY CLAY: Pale yellow (2.5Y), some calcite crystals, oxidized, calcareous, crumbly texture.	1320
-30						NO RECOVERY	
				287		SILTY CLAY: Pale yellow (2.5Y), some laminations, occasional calcite crystals, calcareous.	1315
		3104				NO RECOVERY	
-35							
				110		SILT AND CLAY: Pale yellow (2.5Y), slight laminations, crumbly texture in upper zone, stiff at depth, trace carbonate inclusions, calcareous, silt content increases with depth.	
		97				SILT WITH CLAY: Trace clay, silt clasts, pale yellow (2.5Y), oxidized.	1310
						NO RECOVERY	
-40						SILTY CLAY: Pale yellow (2.5Y), silt clasts throughout, calcareous.	

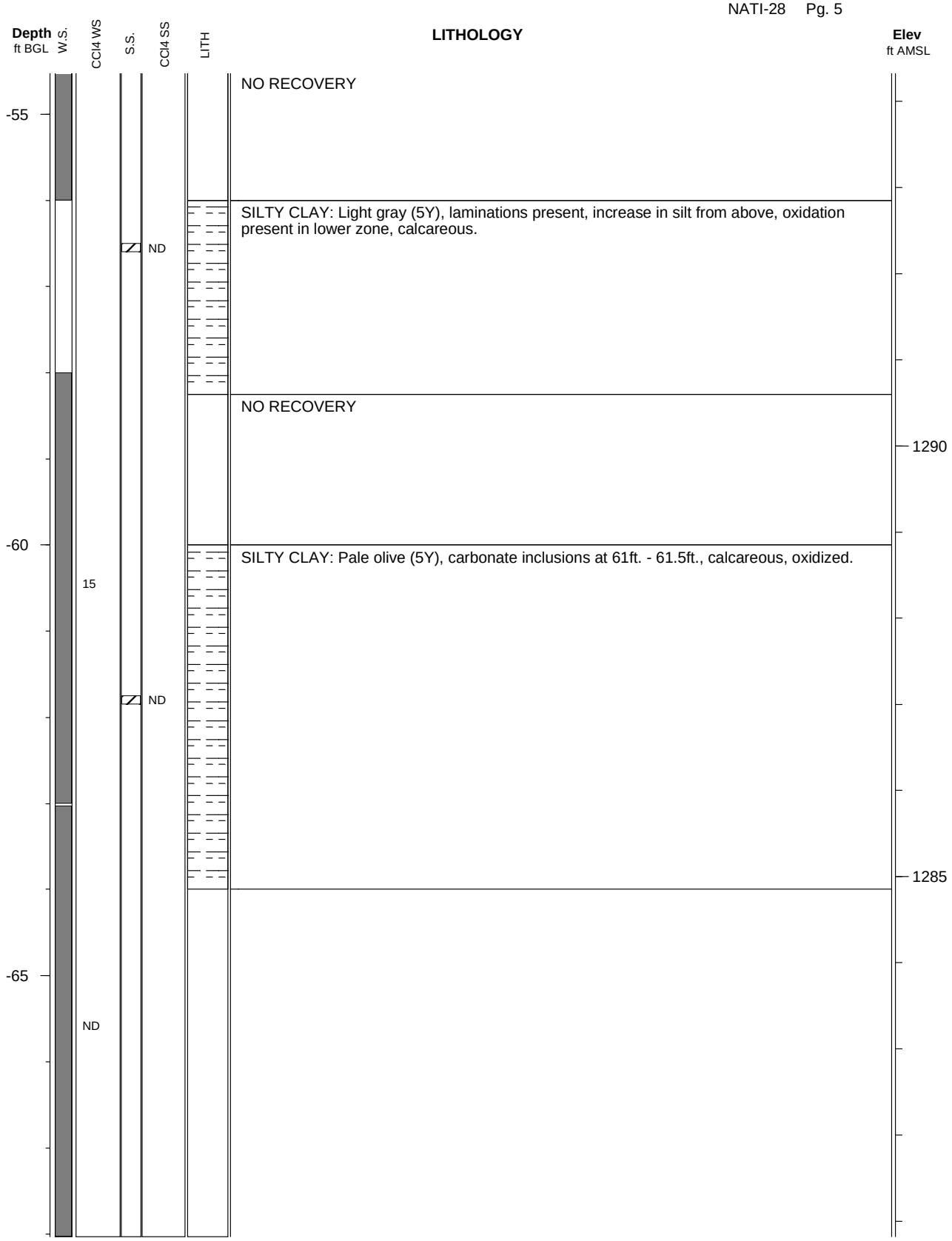
Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-28 Pg. 4

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
				8.7 J		SILT WITH CLAY: Trace clay, white (2.5Y) caliche, calcite crystals occuring in veins (horizontal and vertical), calcareous.	
				5.2 J			
						NO RECOVERY	1305
						SILTY CLAY: Pale yellow (2.5Y), irregular laminations, carbonate inclusions, calcite crystals.	
-45				2.8 J		SILTY CLAY: White (2.5Y)-pale yellow (2.5Y), very coarse silt, calcareous.	
		88					
						NO RECOVERY	
						SILTY CLAY: Abundant silt, pale yellow (2.5Y), oxidized, silt is coarse, thin layers of silt present in upper zone.	1300
				ND			
-50							
						NO RECOVERY	
				ND		SILTY CLAY: Pale olive (5Y), crumbly texture, slightly oxidized at depth, non-calcareous.	
		12					1295

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-28 Pg. 5



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: NATI-29

Project: Navarre

Elevation: 1349.53 ft.

Geologist: Lisa Larsen

Depth: 69.3 ft. BGL

Depth ft BGL	Water Sample	CCl4 W.S.	Soil Sample	CCl4 S.S.	Lithology	LITHOLOGY DESCRIPTION	Elev ft AMSL
0						CLAY, SILT AND GRAVEL: Dark gray (2.5Y), occasional gravel, noncalcareous, dense, stiff, gradual color change, dark redish-brown (5YR).	
-5							1345
				ND		SILT WITH CLAY: Trace clay, light olive brown (2.5Y), oxidized, trace very fine sand, some calcite/sand along veins.	
						NO RECOVERY	
				ND		SILT AND CLAY: Light yellow brown (2.5Y), with white nodules, vuggy with calcite, calcareous.	
						SILT AND CLAY: As above, gradual color change to light olive gray (5Y).	
-10							1340
				ND		SILT AND CLAY: Pale olive (5Y), dense, coarse silt, white veins, calcareous, some oxidation at depth, gradual color change to pale yellow.	
				ND			
-15							1335
				ND			
				ND		NO RECOVERY	
-20							1330

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-29 Pg. 2

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
			91			CLAY AND SILT: Dark grayish-brown (2.5Y), slightly oxidized in parts, dense, coarse silt, trace calcite crystals, lens of very fine sand - coarse silt, some cementation, calcareous.	1325
-25							
			17				
		39					
						CLAY AND SILT: Light yellowish-brown (2.5Y), coarse silt, occasional sandstone fragments, oxidized, lens of very fine sand - coarse silt that is oxidized, some cementation, calcareous.	
			9.4J				1320
-30							
						NO RECOVERY	
						SILT, CLAYEY: Trace clay, light yellowish-brown (2.5Y), coarse silt, oxidized, calcareous, thin lense of coarse silt - slightly cemented.	
			49				
		75					1315
-35							
			135				
						NO RECOVERY	1310
-40							
						CLAY AND SILT: Light yellowish-brown (2.5Y), coarse silt, oxidized, calcareous.	
		269					
			106			CLAY AND SILT: Light brownish-gray (2.5Y), dense coarse silt along veins, slightly oxidized in parts.	
						CLAY, SILTY: White (2.5Y), dense, calcite crystals, vuggy, iron oxide veins, calcareous.	
						CLAY AND SILT: Grayish-brown (2.5Y), oxidized, coarse silt.	1305
-45							
			ND			CLAY AND SILT: Light grayish (2.5Y), coarse silt, calcareous, dense, slightly oxidized in parts.	

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

NATI-29 Pg. 3

Depth ft BGL	W.S.	CCl4 WS	S.S.	CCl4 SS	LITH	LITHOLOGY	Elev ft AMSL
		182		43		CLAY AND SILT: Pale yellowish (2.5Y), poorly cemented sand lens, platy, trace oxidation, calcareous, trace sandstone fragments, platy structure.	1300
-50							
						NO RECOVERY	
				6J		CLAY AND SILT: Light yellowish-brown (2.5Y), coarse silt, some cementation, calcareous, some oxidation, gradual color change to olive gray (5YR).	
						NO RECOVERY	1295
-55		18					
				ND		CLAY AND SILT: Abundant silt, light grayish (2.5Y), silt content increases with depth, coarse silt, some oxidation, slightly cemented, calcareous.	
						NO RECOVERY	1290
-60							
				ND		CLAY AND SILT: Light olive brown (2.5Y), sandstone fragments, calcite crystals, inclusions of calcareous material and very fine sand - coarse silt nodules, oxidized in parts, evidence of wet at 60.57 ft.	
		9.4					
							1285
-65							
		3.4					
							1280
-70							

Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Argonne National Laboratory

Boring ID: MW5

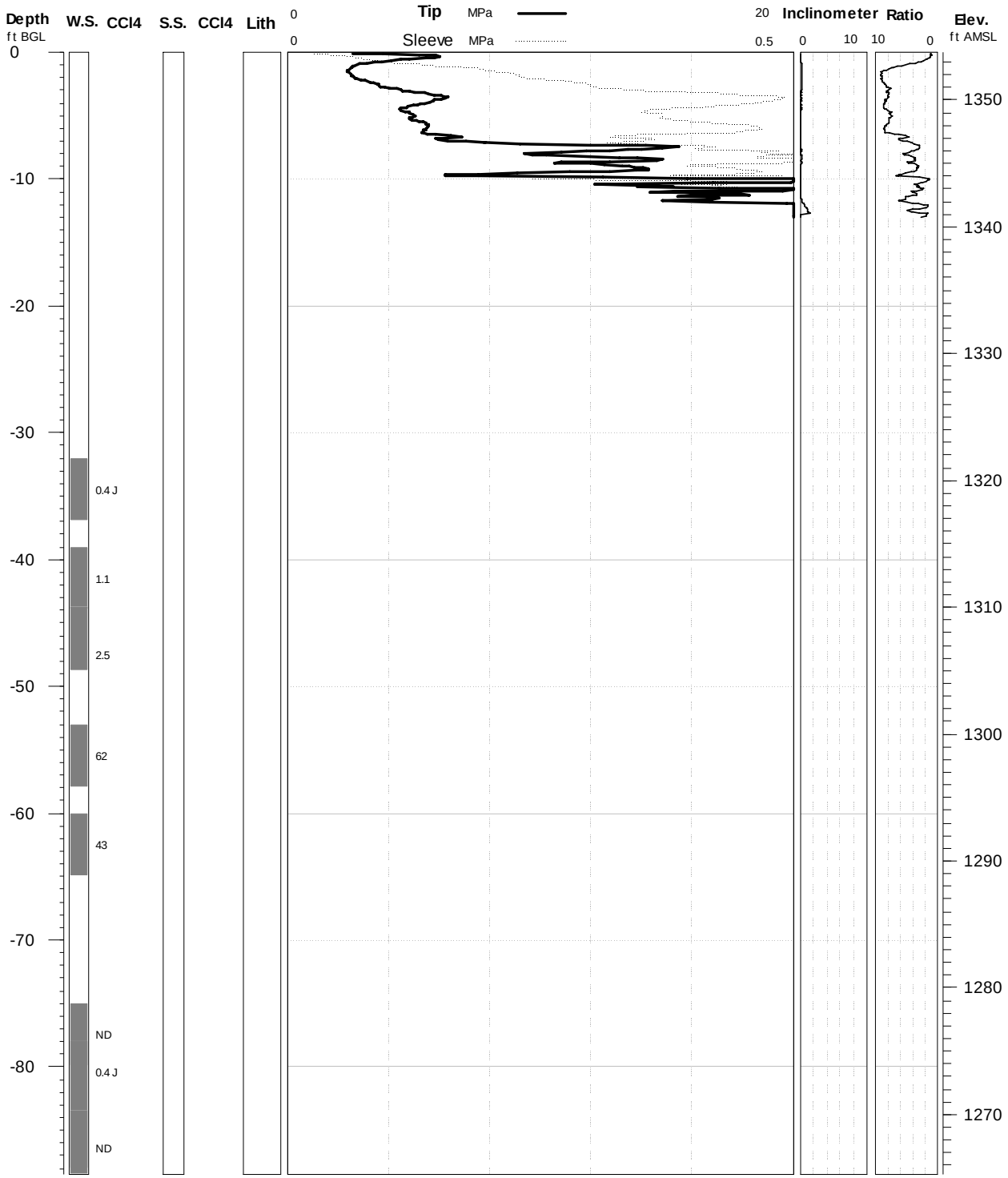
Project: Navarre

Elevation: 1353.77 ft.

Geologist: Lorraine LaFreniere

Depth: 88.5 ft. BGL

Log Date: 5/22/2006



Carbon tetrachloride in water sample = micrograms/L
Carbon tetrachloride in soil sample = micrograms/kg

Appendix B:

Well Construction Information for MW5

Piezometer (Sand Point Well) MW5: Navarre, KS

SE 1/4 of NE 1/4 of NW 1/4 of Section 33, Twp. 14 South, Rge. 3 East
Dickinson County, State of Kansas

Date: 7/25/2006

WELL HEAD PROTECTION
12" Morrison Brothers, Co. Model 418XA flush mount cover. Top of casing fitted with a (J-Plug) Morrison Brothers, Co. Model 678XA and a screened vent with a locking pipe plug and padlock.

CONCRETE PAD
Must be a minimum of 8" thick and extend at least 8" larger than the flush mount (28" minimum). Sloped to prevent pooling of water and vegetation around well and to allow for placement of a surveyor pin.

IMPERVIOUS GROUT
The well must be grouted with impervious grout and must be tremied in the hole, with clean fresh water, to have a minimum density of 9.4 lbs. per gallon. Grout must extend from the top of the bentonite chips to 3' BGL.

WELL CASING
Well casing shall terminate as high as possible inside the flush mount and be capped with a (J-Plug) Morrison Brothers, Co. Model 678XA locking plug and padlock.

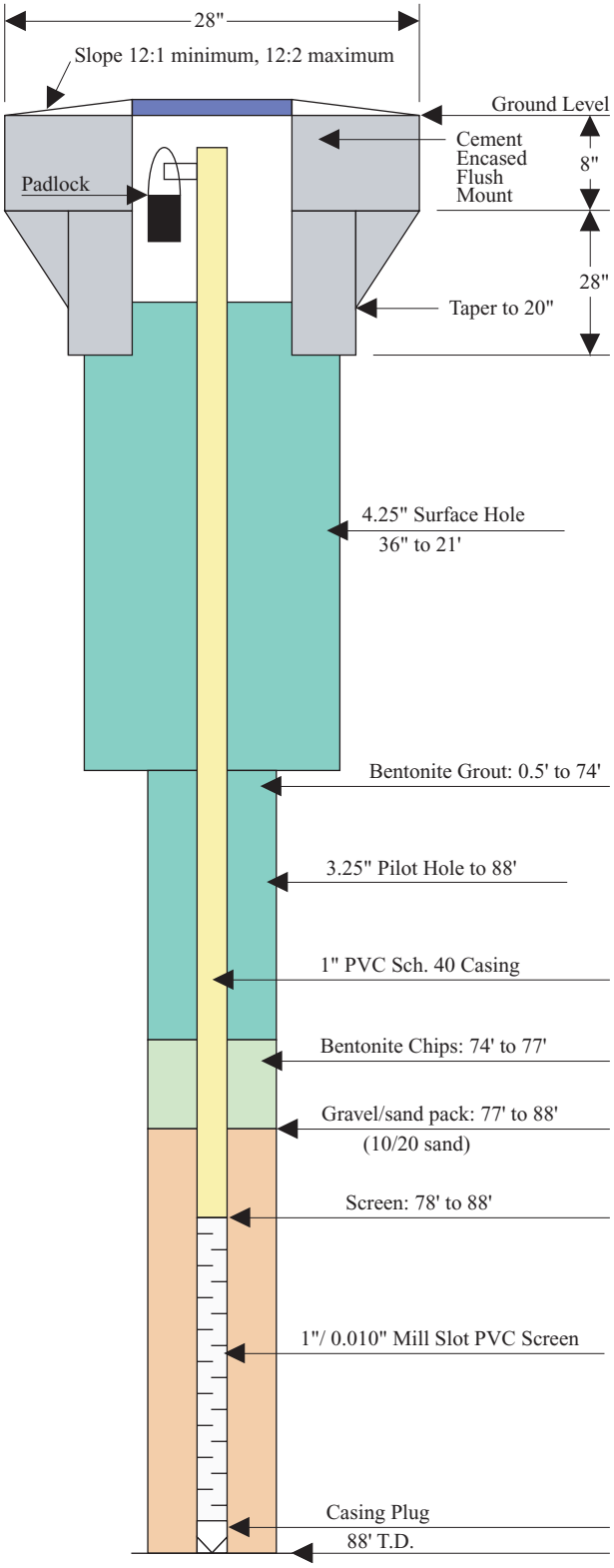
1" PVC Schedule 40 threaded casing and Mill Slot (0.010") well screen.

HOLE SIZE
The hole must be at least 4.25" in diameter for the top 21' and grouted to the base of the flush mount.

GRAVEL / SAND PACK
Gravel/sand pack screen size and gradation shall be determined based upon the grain size and gradation of portion or portions of the aquifer to be screened. Gravel pack shall be designed to stabilize the aquifer material and permit the fine fraction to move into the well during development. Gravel/sand pack shall extend to at least 2' above screen.

CONTRACTOR LICENSING
All wells must be constructed under the direction of a licensed water well contractor as specified under the Kansas Department of Health and Environment.

REGISTRATION
All wells must be registered with the Kansas Department of Health and Environment on form WWC-5 provided by that Department.



(NOT TO SCALE)

Correction This Well Is In Section 33 Correction

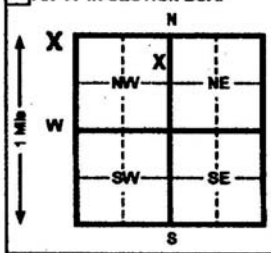
WATER WELL RECORD Form WWC-5 KSA 82a-1212 ID No. MW-5

1 LOCATION OF WATER WELL: County: Dickinson | Fraction: SE ¼ NE ¼ NW ¼ | Section Number: 1 | Township Number: T 14 S/N | Range Number: R 3 E/W

Distance and direction from nearest town or city street address of well if located within city? (38.7954485° N, 097.1031700° W)
85' South of Strole Street and 10' West of 1st Street (1st does not extend between May and Strole Street)

2 WATER WELL OWNER: USDA/CCC
RR#, St. Address, Box # : Stop 0513, Room 4717-S/ 1400 Independence Ave SW
City, State, ZIP Code : Washington, DC 20250-0513
Board of Agriculture, Division of Water Resources Application Number:

3 LOCATE WELL'S LOCATON WITH AN "X" IN SECTION BOX:



4 DEPTH OF COMPLETED WELL 88 ft. ELEVATION: 1,353.65'
Depth(s) Groundwater Encountered 1 79 ft. 2 N/A ft. 3 N/A ft.
WELL'S STATIC WATER LEVEL 31 ft. below land surface measured on mo/day/yr 07/25/06
Pump test data: Well water was N/A ft. after N/A hours pumping N/A gpm
Est. Yield N/A gpm: Well water was N/A ft. after N/A hours pumping N/A gpm
Bore Hole Diameter 4.25 in. to 21 ft. and 3.25 Pilot in. to 88 ft.
WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well
1 Domestic 3 Feed lot 6 Oil field water supply 9 Dewatering 12 Other (Specify below)
2 Irrigation 4 Industrial 7 Lawn and garden (domestic) 10 Monitoring well Sand Point MW
Was a chemical/bacteriological sample submitted to Department? Yes ____ No X If yes, mo/day/yr sample was submitted N/A Water Well Disinfected? Yes ____ No X

5 TYPE OF BLANK CASING USED: 5 Wrought iron 8 Concrete tile CASING JOINTS: Glued ____ Clamped ____
1 Steel 3 RMP (SR) 6 Asbestos-Cement 9 Other (specify below) Welded ____
2 PVC 4 ABS 7 Fiberglass Threaded X
Blank casing diameter 1" in. to 78 ft., Dia N/A in. to N/A ft., Dia N/A in. to N/A ft.
Casing height above land surface Flush Mount in., weight Schedule 40 lbs./ft. Wall thickness or gauge No. .133"
TYPE OF SCREEN OR PERFORATION MATERIAL: 7 PVC 10 Asbestos-cement
1 Steel 3 Stainless steel 5 Fiberglass 8 RMP (SR) 11 Other (specify)
2 Brass 4 Galvanized steel 6 Concrete tile 9 ABS 12 None used (open hole)
SCREEN OR PERFORATION OPENINGS ARE: 5 Gauzed wrapped 8 Saw cut 11 None (open hole)
1 Continuous slot 3 Mill slot 6 Wire wrapped 9 Drilled holes
2 Louvered shutter 4 Key punched 7 Torch cut 10 Other (specify)
SCREEN-PERFORATED INTERVALS: From 78 ft. to 88 ft. From ____ ft. to ____ ft.
From ____ ft. to ____ ft. From ____ ft. to ____ ft.
GRAVEL PACK INTERVALS: From 77 ft. to 88 ft. From ____ ft. to ____ ft.
From ____ ft. to ____ ft. From ____ ft. to ____ ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other BenSeal Chips
Grout Intervals From 74 (#3) ft. to 0.5 ft. From 77 (#4) ft. to 74 ft. From N/A ft. to N/A ft.
What is the nearest source of possible contamination: 10 Livestock pens 14 Abandoned water well
1 Septic tank 4 Lateral lines 7 Pit privy 11 Fuel storage 15 Oil well/ Gas well
2 Sewer lines 5 Cess pool 8 Sewage lagoon 12 Fertilizer storage 16 Other (specify below)
3 Watertight sewer lines 6 Seepage pit 9 Feedyard 13 Insecticide storage
Direction from well? ____ How many feet? 250' East

FROM	TO	CODE	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
0	2'		Top Soil			
2'	48'		Silt and Clay With Bolders			
48'	79'		Silty Clay			
79'	87'		Silty Clay and some Sand			
87"	88'		Clay			

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/yr) 07/25/06 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 680 This Water Well Record was completed on (mo/day/yr) 10-24-06 under the business name of Delta Environmental by (signature)

INSTRUCTIONS:. Please fill in blanks and circle the correct answers. Send three copies to Kansas Department of Health and Environment, Bureau of Water, 1000 S.W Jackson St., Ste. 420, Topeka, Kansas 66612-1367. Telephone: 913-296-5545. Send one to WATER WELL OWNER and retain one for your records.

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Appendix C:

Coordinates Survey Data

TABLE C.1 Coordinates survey data for the 2006 investigation at Navarre.

Location	Horizontal Location[a] (ft) Northing	Easting	Ground Elevation[b] (ft AMSL)
Cone penetrometer sampling locations			
TI-1	169680.825	1568253.983	1352.62
TI-2	169693.739	1568294.251	1351.64
TI-3	169609.492	1568244.016	1352.92
TI-4	169656.098	1568189.406	1351.63
TI-5	169534.213	1568221.318	1351.96
TI-6	169498.115	1568280.322	1352.73
TI-7	169612.025	1568320.129	1351.14
TI-8	169448.449	1568348.940	1351.21
TI-9	169427.001	1568254.976	1351.55
TI-10	169375.023	1568321.065	1353.21
TI-11	169299.401	1568284.386	1352.07
TI-12	169295.189	1568382.529	1351.87
TI-13	169834.283	1568205.747	1351.73
TI-14	169778.675	1568219.992	1352.68
TI-15	169965.491	1568188.481	1351.48
TI-16	169826.265	1568248.293	1352.19
TI-17	169984.611	1568237.475	1351.54
TI-18	169748.891	1568251.468	1353.02
TI-19	170132.606	1568355.171	1349.12
TI-20	169682.829	1567907.391	1353.45
TI-21	170135.159	1568200.213	1352.16
TI-22	169796.837	1568006.400	1352.68
TI-23	170033.385	1568235.733	1351.79
TI-24	170081.286	1568083.370	1352.64
TI-25	170147.822	1568127.860	1352.37
TI-26	170051.693	1568144.665	1352.67
TI-27	169666.384	1568401.793	1350.43
TI-28	169792.658	1568294.183	1348.85
TI-29	169734.532	1568303.312	1349.53
TI-30	169583.697	1567941.394	1353.77
TI-31	169793.896	1567799.797	1353.68
Well installed during 2006 investigation			
MW-5	169570.588	1567942.246	1353.65[c]
Co-op flat storage building			
NE COR BLDG	169961.942	1568249.252	1351.65
SW COR BLDG	169831.725	1568214.414	1351.71
Co-op liquid fertilizer tank concrete berm			
NW COR CONC	169810.451	1568243.282	1354.10
SE COR CONC	169782.763	1568285.590	1354.07

TABLE C.1 (Cont.)

Location	Horizontal Location[a] (ft)		Ground Elevation[b] (ft AMSL)
	Northing	Easting	
Co-op dry fertilizer storage building			
NE COR BLDG	169682.042	1568294.320	1352.02
SW COR BLDG	169614.770	1568264.631	1352.98

[a] Coordinates are in the State Plane, Kansas northern zone. Horizontal datum is North American Datum (NAD) 83.

[b] Vertical datum is North American Vertical Datum (NAVD) 29.

[c] Top of casing elevation, rather than ground elevation. MW5 was installed at the TI-30 location.

Appendix D:

Historical Analytical Data Summary for Monitoring Wells at Navarre, Kansas

TABLE D.1 Historical analytical data summary for monitoring wells at Navarre, Kansas.

Well	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft below TOC)[a]	Nitrate as N (mg/L)	Concentration (µg/L)						
					Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetrachloro-ethylene	1,2-Dichloroethane	1,1,1-Trichloroethane	Chloro-methane
Co-op 1	Unknown	02/22/91	Unknown	3.16	0.7 U[b]	0.5 U	0.9 U	1.1 U	0.6 U	0.7 U	5 U
		08/20/92	Unknown	62	5 U	5 U	5 U	5 U	5 U	5 U	5 U
		12/04/97	Unknown	80.1	NA[c]	NA	NA	NA	NA	NA	NA
		03/21/05	Unknown	NR[d]	0.5 U	0.5 U	NR	NR	NR	NR	NR
		04/08/06	Unknown	NA	1.2	0.8 J[e]	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Co-op 2	70 (TD)[f]	02/22/91	Unknown	344	511	62.3	6.6	3.4	0.9	0.7 U	5 U
Co-op 3	Unknown	02/22/91	Unknown	134	535	54.4	1.9	1.1 U	0.6 U	0.7 U	5 U
		08/19/92	Unknown	95	440	40	5.7	5 U	5 U	5 U	5 U
		12/04/97	Unknown	137	NA	NA	NA	NA	NA	NA	NA
		03/21/05	Unknown	NR	152	36	NR	NR	NR	NR	NR
		04/08/06	Unknown	NA	197	44	3.6	0.2 J	0.1 U	0.1 U	0.1 U
Co-op 4	Unknown	02/22/91	Unknown	22.4	0.7 U	0.5 U	0.9 U	1.1 U	0.6 U	0.7 U	5 U
		08/20/92	Unknown	21	5 U	5 U	5 U	5 U	5 U	5 U	5 U
KDHE-1	35–55	07/18/91	NR	3.86	0.7 U	0.5 U	0.9 U	1.1 U	0.6 U	0.7 U	5 U
		08/21/92	41.40	3.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U
		12/05/97	24.24	3.41	NA	NA	NA	NA	NA	NA	NA
		04/07/06	27.04	NA	0.1 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
KDHE-2	25–45	07/18/91	NR	330	0.7 U	0.5 U	0.9 U	1.1 U	0.6 U	0.7 U	5 U
		08/21/92	33.01	315	5 U	5 U	5 U	5 U	5 U	5 U	5 U
		12/05/97	22.52	175	NA	NA	NA	NA	NA	NA	NA
		04/07/06	24.32	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
T1	40–60	04/06/93[g]	31.70	61	249	25	NA	NA	NA	NA	NA
		04/07/06	30.81	NA	118	20	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

TABLE D.1 (Cont.)

Well	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft below TOC)[a]	Nitrate as N (mg/L)	Concentration (µg/L)						
					Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetrachloro-ethylene	1,2-Dichloroethane	1,1,1-Trichloroethane	Chloro-methane
L-1	75–95	03/02/94[g]	NR	NA	100	17	NA	NA	NA	NA	NA
		03/14/94[g]	26.86	NA	36	8	NA	NA	NA	NA	NA
		03/14/94[g]	NR	NA	84-94	14-16	NA	NA	NA	NA	NA
		12/08/97	26.70	31	27	5	2.5 U	0.5 U	0.5 U	0.5 U	0.8 U
		04/08/06	29.34	NA	54	11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
L-2	80–90	03/14/94[g]	26.11	NA	5 U	5 U	NA	NA	NA	NA	NA
		02/05/98	NR	0.6	1.2 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.8 U
		04/06/06	29.49	NA	0.2 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
L-3	80–90	03/14/94[g]	28.05	NA	5 U	5 U	NA	NA	NA	NA	NA
		02/05/98	NR	4.42	1.2 U	1.1	2.5 U	0.5 U	0.5 U	0.5 U	1.9
		03/21/05	NR	NR	0.5 U	0.5 U	NR	NR	NR	NR	NR
		04/07/06	29.75	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
MW1	43–58	04/06/93[g]	31.40	NA	157	20	NA	NA	NA	NA	NA
		12/08/97	27.80	67.4	94	13	2.5 U	0.72	0.5 U	0.5 U	0.8 U
		04/05/06	31.11	NA	59	12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
MW2	42.8–57.8	04/06/93[g]	31.60	51	99	12	NA	NA	NA	NA	NA
		12/07/97	26.40	NS[h]	NS	NS	NS	NS	NS	NS	NS
		04/06/06	31.42	NA	27	7.7	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
MW3	44–59	04/06/93[g]	32.00	NA	198	20	NA	NA	NA	NA	NA
		12/07/97	28.75	100	100	24	2.5 U	0.72	0.5 U	0.5 U	0.8 U
		04/06/06	31.58	NA	83	20	ND	0.1 J	0.1 U	0.1 U	0.1 U
MW4	45–60	04/06/93[g]	32.40	62	395	25	NA	NA	NA	NA	NA
		12/08/97	NR	52.2	220	19	2.5 U	0.5 U	0.5 U	1.5	1.2
		04/06/06	32.21	NA	194	21	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

TABLE D.1 (Cont.)

Well	Screen Interval (ft BGL)	Sample Date	Depth to Water (ft below TOC)[a]	Nitrate as N (mg/L)	Concentration (μg/L)						
					Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetrachloro-ethylene	1,2-Dichloroethane	1,1,1-Trichloroethane	Chloro-methane
MW5	78–88	05/25/06	31	NA	0.4 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NW-1	40–50	10/28/00	31.30	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U
		04/08/06	29.34	NA	1.1	0.3 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NW-2	35.5–45.5	10/28/00	29.85	97.2	243	39	10 U	10 U	10 U	10 U	10 U
		04/09/06	28.09	NA	313	74	3.2	0.24 J	0.1 U	0.1 U	0.1 U
NW-3	38–48	05/25/06	29.60	NA	34	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NW-4	33.5–43.5	05/25/06	Unk	NS	NS	NS	NS	NS	NS	NS	NS

[a] TOC, top of casing.

[b] Qualifier U indicates that the contaminant was not detected at the indicated reporting limit.

[c] NA, not analyzed for this constituent.

[d] NR, not reported in documentation on file at Argonne.

[e] Qualifier J indicates an estimated concentration below the method quantitation limit of 1.0 μg/L.

[f] TD, total depth.

[g] Rapid-turnaround analysis for carbon tetrachloride and chloroform.

[h] NS, well could not be found and was not sampled in this event.

Supplementary Material for

Investigation of Contaminant Sources at Navarre, Kansas

Applied Geosciences and Environmental Management Section,
Environmental Science Division,
Argonne National Laboratory, 9700 South Cass Avenue, Argonne, Illinois 60439

Contents:

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S4_qualitycontrol.pdf	Supplement 4: Quality Control for Sample Collection, Handling, and Analysis
S5_COC-analytics.pdf	Supplement 5: Chain-of-Custody Forms and Outside Laboratory Data
S6_wastewater.pdf	Supplement 6: Wastewater Characterization Data
S7_property.pdf	Supplement 7: Property Documentation

May 2007

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Supplement 1:

Soil Sample Data

TABLE S1.1 Organic results for vertical-profile soil samples collected during the 2006 investigation at Navarre, Kansas.

				Concentration (µg/kg)										
Location	Sample	Sample Date	Depth (ft BGL)	Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations														
TI-1	NATI1-S-20300	4/7/06	2.0	ND[a]	ND	ND								
TI-1	NATI1-S-20301	4/7/06	6.0	ND	ND	ND								
TI-1	NATI1-S-20302	4/7/06	7.0	ND	ND	ND								
TI-1	NATI1-S-20303	4/7/06	9.0	ND	ND	ND								
TI-1	NATI1-S-20304	4/7/06	18.0	ND	1.0 J[b]	ND								
TI-1	NATI1-S-20464	4/11/06	19.2	ND	ND	ND								
TI-1	NATI1-S-20305	4/8/06	20.5	ND	ND	ND								
TI-1	NATI1-S-20465	4/11/06	21.5	0.9 J	ND	ND								
TI-1	NATI1-S-20467	4/11/06	23.8	1.3 J	ND	ND								
TI-1	NATI1-S-20306	4/8/06	31.0	56	3.7 J	ND								
TI-1	NATI1-S-20475	4/13/06	32.0	23	1.6 J	ND								
TI-1	NATI1-S-20476	4/13/06	32.7	35	12	ND								
TI-1	NATI1-S-20477	4/13/06	34.5	3.0 J	11	ND								
TI-1	NATI1-S-20478	4/13/06	36.0	48	10	ND								
TI-1	NATI1-S-20479	4/13/06	38.5	37	3.8 J	ND								
TI-1	NATI1-S-20480	4/13/06	39.5	41	3.5 J	ND								
TI-1	NATI1-S-20481	4/13/06	42.5	44	10	ND								
TI-1	NATI1-S-20482	4/13/06	44.0	3.3 J	2.6 J	ND								
TI-1	NATI1-S-20484	4/13/06	46.5	15	4.1 J	ND								
TI-1	NATI1-S-20485	4/13/06	47.5	10	2.3 J	ND								
TI-1	NATI1-S-20336	4/13/06	51.0	1.4 J	ND	ND								
TI-1	NATI1-S-20337	4/13/06	55.0	1.8 J	ND	ND								
TI-1	NATI1-S-20339	4/13/06	58.5	3.2 J	2.2 J	ND								
TI-1	NATI1-S-20340	4/13/06	59.5	ND	ND	ND								
TI-2	NATI2-S-20406	4/5/06	2.0	ND	ND	ND								
TI-2	NATI2-S-20407	4/5/06	6.0	ND	ND	ND								
TI-2	NATI2-S-20408	4/5/06	9.0	ND	ND	ND								
TI-2	NATI2-S-20409	4/5/06	10.0	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-2	NATI2-S-20410	4/5/06	14.0	ND	ND	ND								
TI-2	NATI2-S-20411	4/5/06	16.0	ND	ND	ND								
TI-2	NATI2-S-20413	4/5/06	20.5	ND	ND	ND								
TI-2	NATI2-S-20414	4/6/06	24.5	ND	ND	ND								
TI-2	NATI2-S-20415	4/6/06	28.7	7.0 J	1.5 J	ND								
TI-2	NATI2-S-20416	4/6/06	30.0	12	6.8 J	ND								
TI-2	NATI2-S-20417	4/6/06	32.0	ND	2.2 J	ND								
TI-2	NATI2-S-20418	4/6/06	34.0	13	6.1 J	ND								
TI-2	NATI2-S-20419	4/6/06	38.0	65	3.9 J	ND								
TI-2	NATI2-S-20420	4/6/06	40.0	15	4.4 J	ND								
TI-2	NATI2-S-20421	4/6/06	42.0	2.7 J	ND	ND								
TI-2	NATI2-S-20422	4/6/06	46.0	0.9 J	1.9 J	ND								
TI-2	NATI2-S-20423	4/6/06	50.0	7.3 J	1.3 J	ND								
TI-2	NATI2-S-20424	4/6/06	52.0	4.9 J	3 J	ND								
TI-2	NATI2-S-20425	4/6/06	54.0	30	5.1 J	ND								
TI-2	NATI2-S-20426	4/6/06	58.0	ND	ND	ND								
TI-2	NATI2-S-20427	4/6/06	61.0	ND	ND	ND								
TI-2	NATI2-S-20428	4/7/06	68.5	ND	ND	ND								
TI-2	NATI2-S-20429	4/7/06	70.7	ND	ND	ND								
TI-3	NATI3-S-20286	4/4/06	6.0	ND	ND	ND								
TI-3	NATI3-S-20287	4/4/06	10.0	ND	ND	ND								
TI-3	NATI3-S-20295	4/6/06	22.0	ND	1.0 J	ND								
TI-3	NATI3-S-20296	4/6/06	24.5	ND	ND	ND								
TI-3	NATI3-S-20297	4/7/06	25.5	ND	ND	ND								
TI-3	NATI3-S-20289	4/5/06	32.0	ND	ND	ND								
TI-3	NATI3-S-20290	4/6/06	36.0	2.7 J	1.6 J	ND								
TI-3	NATI3-S-20291	4/6/06	37.0	ND	1.1 J	ND								
TI-3	NATI3-S-20292	4/6/06	40.0	1.4 J	1.3 J	ND								
TI-3	NATI3-S-20293	4/6/06	44.0	1.6 J	ND	ND								
TI-3	NATI3-S-20294	4/6/06	48.0	2.6 J	1.2 J	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-3	NATI3-S-20375	4/13/06	49.2	ND	1.9 J	ND								
TI-3	NATI3-S-20376	4/13/06	52.8	21	ND	ND								
TI-3	NATI3-S-20379	4/13/06	56.5	1.3 J	ND	ND								
TI-3	NATI3-S-20381	4/13/06	60.0	ND	ND	ND								
TI-3	NATI3-S-20382	4/13/06	62.0	ND	ND	ND								
TI-4	NATI4-S-20308	4/8/06	2.0	ND	ND	ND								
TI-4	NATI4-S-20309	4/8/06	6.8	ND	ND	ND								
TI-4	NATI4-S-20310	4/8/06	9.0	ND	ND	ND								
TI-4	NATI4-S-20311	4/8/06	14.5	ND	ND	ND								
TI-4	NATI4-S-20312	4/8/06	17.7	ND	ND	ND								
TI-4	NATI4-S-20313	4/8/06	20.5	10	ND	ND								
TI-4	NATI4-S-20314	4/9/06	25.0	29	1.3 J	ND								
TI-4	NATI4-S-20316	4/9/06	29.2	6.0 J	1.5 J	ND								
TI-4	NATI4-S-20315	4/9/06	31.0	4.0 J	ND	ND								
TI-4	NATI4-S-20317	4/9/06	34.0	1.0 J	ND	ND								
TI-4	NATI4-S-20319	4/9/06	37.0	32	8.3 J	ND								
TI-4	NATI4-S-20320	4/9/06	45.5	3.1 J	ND	ND								
TI-4	NATI4-S-20321	4/9/06	50.0	20	1.8 J	ND								
TI-4	NATI4-S-20322	4/9/06	54.0	ND	ND	ND								
TI-4	NATI4-S-20323	4/9/06	58.0	7.3 J	0.9 J	ND								
TI-4	NATI4-S-20324	4/9/06	61.0	ND	ND	ND								
TI-5	NATI5-S-20326	4/10/06	2.0	ND	ND	ND								
TI-5	NATI5-S-20327	4/10/06	5.0	ND	ND	ND								
TI-5	NATI5-S-20332	4/11/06	9.7	ND	ND	ND								
TI-5	NATI5-S-20333	4/11/06	13.0	ND	ND	ND								
TI-5	NATI5-S-20334	4/11/06	17.2	ND	ND	ND								
TI-5	NATI5-S-20335	4/11/06	22.0	ND	ND	ND								
TI-5	NATI5-S-20356	4/11/06	25.0	ND	ND	ND								
TI-5	NATI5-S-20358	4/11/06	30.0	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-5	NATI5-S-20359	4/11/06	34.0	ND	ND	ND								
TI-5	NATI5-S-20360	4/11/06	38.0	ND	ND	ND								
TI-5	NATI5-S-20361	4/11/06	42.0	ND	ND	ND								
TI-5	NATI5-S-20363	4/11/06	46.0	ND	ND	ND								
TI-5	NATI5-S-20364	4/11/06	49.5	ND	ND	ND								
TI-5	NATI5-S-20366	4/11/06	52.0	ND	ND	ND								
TI-5	NATI5-S-20365	4/11/06	53.0	15	ND	ND								
TI-5	NATI5-S-20367	4/12/06	61.0	ND	ND	ND								
TI-6	NATI6-S-20390	4/20/06	2.0	ND	ND	ND								
TI-6	NATI6-S-20391	4/20/06	6.5	ND	ND	ND								
TI-6	NATI6-S-20394	4/20/06	10.0	ND	ND	ND								
TI-6	NATI6-S-20392	4/20/06	12.5	ND	ND	ND								
TI-6	NATI6-S-20393	4/20/06	17.8	ND	ND	ND								
TI-6	NATI6-S-20395	4/20/06	21.2	ND	ND	ND								
TI-6	NATI6-S-20396	4/20/06	25.0	ND	ND	ND								
TI-6	NATI6-S-20397	4/20/06	28.8	ND	ND	ND								
TI-6	NATI6-S-20398	4/20/06	32.8	ND	ND	ND								
TI-6	NATI6-S-20399	4/20/06	37.0	ND	ND	ND								
TI-6	NATI6-S-20400	4/20/06	42.0	ND	ND	ND								
TI-6	NATI6-S-20401	4/20/06	46.0	ND	ND	ND								
TI-6	NATI6-S-20402	4/20/06	50.0	1.3 J	ND	ND								
TI-6	NATI6-S-20404	4/21/06	53.4	ND	ND	ND								
TI-6	NATI6-S-20405	4/21/06	61.0	ND	ND	ND								
TI-7	NATI7-S-20436	4/9/06	2.0	ND	ND	ND								
TI-7	NATI7-S-20437	4/9/06	4.0	ND	ND	ND								
TI-7	NATI7-S-20438	4/9/06	5.5	ND	ND	ND								
TI-7	NATI7-S-20439	4/9/06	6.0	ND	ND	ND								
TI-7	NATI7-S-20440	4/9/06	8.5	ND	ND	ND								
TI-7	NATI7-S-20441	4/9/06	10.5	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-7	NATI7-S-20442	4/9/06	14.0	ND	ND	ND								
TI-7	NATI7-S-20444	4/9/06	16.0	ND	ND	ND								
TI-7	NATI7-S-20443	4/9/06	16.2	ND	ND	ND								
TI-7	NATI7-S-20445	4/9/06	18.2	ND	ND	ND								
TI-7	NATI7-S-20446	4/9/06	20.2	ND	ND	ND								
TI-7	NATI7-S-20447	4/9/06	22.2	ND	ND	ND								
TI-7	NATI7-S-20448	4/9/06	25.0	ND	ND	ND								
TI-7	NATI7-S-20449	4/9/06	29.0	ND	ND	ND								
TI-7	NATI7-S-20450	4/9/06	30.0	1.5 J	ND	ND								
TI-7	NATI7-S-20451	4/9/06	36.5	ND	ND	ND								
TI-7	NATI7-S-20452	4/9/06	38.0	ND	ND	ND								
TI-7	NATI7-S-20453	4/9/06	41.0	ND	ND	ND								
TI-7	NATI7-S-20454	4/9/06	43.0	ND	ND	ND								
TI-7	NATI7-S-20455	4/9/06	46.0	7.0 J	ND	ND								
TI-7	NATI7-S-20456	4/10/06	52.5	ND	ND	ND								
TI-7	NATI7-S-20457	4/10/06	57.0	ND	ND	ND								
TI-7	NATI7-S-20458	4/10/06	62.0	ND	ND	ND								
TI-7	NATI7-S-20459	4/10/06	69.0	ND	ND	ND								
TI-8	NATI8-S-20507	4/26/06	2.0	ND	ND	ND								
TI-8	NATI8-S-20508	4/26/06	5.5	ND	ND	ND								
TI-8	NATI8-S-20509	4/26/06	10.0	ND	ND	ND								
TI-8	NATI8-S-20510	4/26/06	13.0	ND	ND	ND								
TI-8	NATI8-S-20511	4/26/06	16.5	ND	ND	ND								
TI-8	NATI8-S-20512	4/26/06	17.8	ND	ND	ND								
TI-8	NATI8-S-20513	4/26/06	19.5	ND	ND	ND								
TI-8	NATI8-S-20514	4/26/06	23.4	ND	ND	ND								
TI-8	NATI8-S-20515	4/26/06	26.8	ND	ND	ND								
TI-8	NATI8-S-20516	4/26/06	31.0	ND	ND	ND								
TI-8	NATI8-S-20520	4/26/06	36.0	ND	ND	ND								
TI-8	NATI8-S-20521	4/26/06	40.0	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-8	NATI8-S-20522	4/27/06	42.6	ND	ND	ND								
TI-8	NATI8-S-20524	4/27/06	47.0	ND	ND	ND								
TI-8	NATI8-S-20525	4/27/06	51.0	ND	ND	ND								
TI-8	NATI8-S-20526	4/27/06	54.6	ND	ND	ND								
TI-8	NATI8-S-20528	4/27/06	59.7	ND	ND	ND								
TI-9	NATI9-S-20283	4/22/06	4.0	ND	ND	ND								
TI-9	NATI9-S-20284	4/22/06	7.0	ND	ND	ND								
TI-9	NATI9-S-20285	4/22/06	9.5	ND	ND	ND								
TI-9	NATI9-S-20590	4/22/06	11.0	ND	ND	ND								
TI-9	NATI9-S-20591	4/22/06	13.0	ND	ND	ND								
TI-9	NATI9-S-20592	4/22/06	16.0	ND	ND	ND								
TI-9	NATI9-S-20593	4/22/06	18.0	ND	ND	ND								
TI-9	NATI9-S-20594	4/22/06	20.5	ND	ND	ND								
TI-9	NATI9-S-20595	4/22/06	25.0	ND	ND	ND								
TI-9	NATI9-S-20597	4/22/06	29.5	ND	ND	ND								
TI-9	NATI9-S-20598	4/22/06	33.0	ND	ND	ND								
TI-9	NATI9-S-20599	4/22/06	35.0	ND	ND	ND								
TI-9	NATI9-S-20600	4/22/06	38.0	ND	ND	ND								
TI-9	NATI9-S-20601	4/22/06	40.0	ND	ND	ND								
TI-9	NATI9-S-20602	4/23/06	45.0	ND	ND	ND								
TI-9	NATI9-S-20603	4/23/06	50.0	2.7 J	ND	ND								
TI-9	NATI9-S-20604	4/23/06	53.0	ND	ND	ND								
TI-9	NATI9-S-20605	4/23/06	57.0	ND	ND	ND								
TI-9	NATI9-S-20606	4/23/06	61.0	ND	ND	ND								
TI-9	NATI9-S-20607	4/23/06	65.0	ND	ND	ND								
TI-9	NATI9-S-20608	4/23/06	69.0	ND	ND	ND								
TI-10	NATI10-S-20611	4/25/06	4.5	ND	ND	ND								
TI-10	NATI10-S-20612	4/25/06	6.5	ND	ND	ND								
TI-10	NATI10-S-20613	4/25/06	9.5	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-10	NATI10-S-20614	4/25/06	10.8	ND	ND	ND								
TI-10	NATI10-S-20615	4/25/06	13.5	ND	ND	ND								
TI-10	NATI10-S-20616	4/25/06	17.0	ND	2.0 J	ND	464	ND	43	ND	ND	ND	ND	21
TI-10	NATI10-S-20617	4/25/06	19.5	ND	8.0 J	ND	243	338	357	ND	28	20	16	34
TI-10	NATI10-S-20618	4/25/06	20.8	ND	30	112	1048	561	798	19	35	31	20	692
TI-10	NATI10-S-20619	4/26/06	25.5	ND	1.2 J	ND								
TI-10	NATI10-S-20620	4/26/06	29.5	ND	ND	ND								
TI-10	NATI10-S-20621	4/26/06	32.5	ND	ND	ND	< 1							
TI-10	NATI10-S-20622	4/26/06	34.5	ND	ND	ND								
TI-10	NATI10-S-20623	4/26/06	38.0	ND	ND	ND	ND							
TI-10	NATI10-S-20624	4/26/06	43.0	ND	ND	ND								
TI-10	NATI10-S-20626	4/26/06	46.0	ND	ND	ND	ND							
TI-10	NATI10-S-20627	4/26/06	50.0	ND	ND	ND								
TI-10	NATI10-S-20636	4/26/06	54.0	ND	ND	ND								
TI-10	NATI10-S-20628	4/26/06	57.0	ND	ND	ND								
TI-10	NATI10-S-20629	4/26/06	61.0	ND	ND	ND								
TI-10	NATI10-S-20630	4/26/06	65.5	ND	ND	ND								
TI-11	NATI11-S-20354	4/22/06	2.0	ND	ND	ND								
TI-11	NATI11-S-20355	4/22/06	5.0	ND	ND	ND								
TI-11	NATI11-S-20488	4/22/06	9.0	ND	ND	ND								
TI-11	NATI11-S-20489	4/22/06	13.0	ND	ND	ND								
TI-11	NATI11-S-20491	4/22/06	17.0	ND	ND	ND								
TI-11	NATI11-S-20490	4/22/06	21.0	ND	ND	ND								
TI-11	NATI11-S-20492	4/23/06	26.0	ND	ND	ND								
TI-11	NATI11-S-20493	4/23/06	29.0	ND	ND	ND								
TI-11	NATI11-S-20494	4/23/06	32.5	ND	ND	ND								
TI-11	NATI11-S-20495	4/23/06	38.0	ND	ND	ND								
TI-11	NATI11-S-20496	4/23/06	42.0	ND	ND	ND								
TI-11	NATI11-S-20497	4/23/06	45.3	ND	ND	ND								
TI-11	NATI11-S-20498	4/23/06	50.0	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Former CCC/USDA grain storage facility sampling locations (cont.)														
TI-11	NATI11-S-20499	4/24/06	51.8	ND	ND	ND								
TI-11	NATI11-S-20502	4/24/06	52.9	ND	ND	ND								
TI-11	NATI11-S-20503	4/25/06	56.5	ND	ND	ND								
TI-11	NATI11-S-20505	4/25/06	60.5	ND	ND	ND								
TI-12	NATI12-S-20734	5/3/06	1.0	ND	ND	ND								
TI-12	NATI12-S-20735	5/3/06	5.5	ND	ND	ND								
TI-12	NATI12-S-20736	5/3/06	9.5	ND	ND	ND								
TI-12	NATI12-S-20737	5/3/06	13.5	ND	ND	ND								
TI-12	NATI12-S-20738	5/3/06	16.5	ND	ND	ND								
TI-12	NATI12-S-20739	5/3/06	21.0	ND	ND	ND								
TI-12	NATI12-S-20741	5/3/06	24.2	ND	ND	ND								
TI-12	NATI12-S-20742	5/3/06	29.0	ND	ND	ND								
TI-12	NATI12-S-20743	5/3/06	30.5	ND	ND	ND								
TI-12	NATI12-S-20744	5/3/06	33.2	ND	ND	ND								
TI-12	NATI12-S-20745	5/3/06	34.5	ND	ND	ND								
TI-12	NATI12-S-20746	5/3/06	37.0	ND	ND	ND								
TI-12	NATI12-S-20747	5/3/06	40.5	ND	ND	ND								
TI-12	NATI12-S-20748	5/3/06	42.2	ND	ND	ND								
TI-12	NATI12-S-20749	5/3/06	45.0	ND	ND	ND								
TI-12	NATI12-S-20750	5/3/06	48.5	ND	ND	ND								
TI-12	NATI12-S-20751	5/3/06	50.2	ND	ND	ND								
TI-12	NATI12-S-20752	5/3/06	51.0	ND	ND	ND								
TI-12	NATI12-S-20753	5/3/06	53.5	ND	ND	ND								
TI-12	NATI12-S-20754	5/3/06	56.5	ND	1.0 J	ND								
TI-12	NATI12-S-20755	5/3/06	60.0	ND	ND	ND								
TI-12	NATI12-S-20756	5/3/06	61.5	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Co-op property sampling locations														
TI-13	NATI13-S-20532	5/2/06	2.0	ND	ND	ND								
TI-13	NATI13-S-20533	5/2/06	4.0	ND	ND	ND								
TI-13	NATI13-S-20534	5/2/06	7.0	ND	ND	ND								
TI-13	NATI13-S-20535	5/2/06	10.7	ND	ND	ND								
TI-13	NATI13-S-20536	5/2/06	11.8	ND	ND	ND								
TI-13	NATI13-S-20537	5/2/06	14.6	ND	ND	ND								
TI-13	NATI13-S-20538	5/2/06	15.5	ND	ND	ND								
TI-13	NATI13-S-20539	5/3/06	18.4	ND	ND	ND								
TI-13	NATI13-S-20540	5/3/06	19.1	ND	ND	ND								
TI-13	NATI13-S-20557	5/4/06	22.8	ND	1.6 J	ND								
TI-13	NATI13-S-20541	5/3/06	27.0	176	33	ND								
TI-13	NATI13-S-20542	5/3/06	28.0	224	34	ND								
TI-13	NATI13-S-20558	5/4/06	30.5	37	14	ND								
TI-13	NATI13-S-20543	5/3/06	34.5	22	6.3 J	ND								
TI-13	NATI13-S-20544	5/3/06	36.0	16	5.1 J	ND								
TI-13	NATI13-S-20545	5/3/06	38.0	45	29	ND								
TI-13	NATI13-S-20546	5/3/06	40.0	18	8 J	ND								
TI-13	NATI13-S-20547	5/3/06	42.9	30	5.6 J	ND								
TI-13	NATI13-S-20548	5/3/06	47.0	11	3 J	ND								
TI-13	NATI13-S-20549	5/3/06	50.0	20	2.4 J	ND								
TI-13	NATI13-S-20550	5/3/06	51.5	3.1 J	1.8 J	ND								
TI-13	NATI13-S-20553	5/3/06	54.8	3.5 J	ND	ND								
TI-13	NATI13-S-20554	5/3/06	58.9	1.9 J	1.2 J	ND								
TI-14	NATI14-S-20656	5/5/06	2.0	ND	ND	ND								
TI-14	NATI14-S-20657	5/5/06	5.0	ND	ND	ND								
TI-14	NATI14-S-20658	5/5/06	7.0	ND	ND	ND								
TI-14	NATI14-S-20659	5/5/06	8.8	ND	ND	ND								
TI-14	NATI14-S-20660	5/5/06	9.5	ND	ND	ND								
TI-14	NATI14-S-20661	5/5/06	11.2	ND	ND	ND								
TI-14	NATI14-S-20662	5/5/06	12.5	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Co-op property sampling locations (cont.)														
TI-14	NATI14-S-20663	5/5/06	16.5	ND	ND	ND								
TI-14	NATI14-S-20664	5/5/06	20.8	ND	ND	ND								
TI-14	NATI14-S-20665	5/5/06	21.8	ND	ND	ND								
TI-14	NATI14-S-20667	5/5/06	24.2	ND	ND	ND								
TI-14	NATI14-S-20668	5/5/06	26.8	ND	ND	ND								
TI-14	NATI14-S-20669	5/5/06	29.0	19	3.7 J	ND								
TI-14	NATI14-S-20670	5/5/06	32.8	73	2.1 J	ND								
TI-14	NATI14-S-20671	5/5/06	35.2	364	16	ND								
TI-14	NATI14-S-20672	5/5/06	38.0	194	15	ND								
TI-14	NATI14-S-20673	5/5/06	40.5	306	25	ND								
TI-14	NATI14-S-20674	5/5/06	44.5	114	2.3 J	ND								
TI-14	NATI14-S-20675	5/5/06	46.2	160	2.6 J	ND								
TI-14	NATI14-S-20686	5/5/06	49.0	66	5.5 J	ND								
TI-14	NATI14-S-20687	5/6/06	52.8	2.6 J	1.8 J	ND								
TI-14	NATI14-S-20688	5/6/06	56.8	6.6 J	3.6 J	ND								
TI-14	NATI14-S-20689	5/6/06	57.8	50	4.0 J	ND								
TI-14	NATI14-S-20690	5/6/06	61.2	ND	ND	ND								
TI-15	NATI15-S-20566	5/5/06	1.0	ND	ND	ND								
TI-15	NATI15-S-20567	5/5/06	5.0	ND	ND	ND								
TI-15	NATI15-S-20568	5/5/06	8.5	ND	ND	ND								
TI-15	NATI15-S-20569	5/5/06	12.4	ND	ND	ND								
TI-15	NATI15-S-20570	5/5/06	13.0	ND	ND	ND								
TI-15	NATI15-S-20571	5/5/06	17.7	ND	ND	ND								
TI-15	NATI15-S-20572	5/5/06	19.0	ND	ND	ND								
TI-15	NATI15-S-20573	5/5/06	21.0	ND	ND	ND								
TI-15	NATI15-S-20574	5/5/06	24.6	ND	ND	ND								
TI-15	NATI15-S-20575	5/5/06	26.1	93	2.5 J	ND								
TI-15	NATI15-S-20576	5/5/06	29.0	27	ND	ND								
TI-15	NATI15-S-20577	5/5/06	33.5	23	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Co-op property sampling locations (cont.)														
TI-15	NATI15-S-20578	5/5/06	34.6	13	ND	ND								
TI-15	NATI15-S-20579	5/5/06	37.5	13	3.5 J	ND								
TI-15	NATI15-S-20580	5/5/06	41.5	91	4.7 J	ND								
TI-15	NATI15-S-20581	5/5/06	45.0	3.3 J	ND	ND								
TI-15	NATI15-S-20585	5/6/06	51.9	ND	ND	ND								
TI-15	NATI15-S-20564	5/6/06	52.5	ND	ND	ND								
TI-15	NATI15-S-20565	5/6/06	57.1	ND	ND	ND								
TI-15	NATI15-S-20766	5/6/06	60.8	ND	ND	ND								
TI-16	NATI16-S-20770	5/7/06	1.5	ND	ND	ND								
TI-16	NATI16-S-20771	5/7/06	3.5	3.3 J	ND	ND								
TI-16	NATI16-S-20772	5/7/06	6.0	ND	ND	ND								
TI-16	NATI16-S-20773	5/7/06	9.2	ND	ND	ND								
TI-16	NATI16-S-20774	5/7/06	10.0	ND	ND	ND								
TI-16	NATI16-S-20775	5/7/06	11.5	ND	ND	ND								
TI-16	NATI16-S-20776	5/7/06	13.5	ND	ND	ND								
TI-16	NATI16-S-20777	5/7/06	16.5	ND	ND	ND								
TI-16	NATI16-S-20778	5/7/06	17.5	ND	ND	ND								
TI-16	NATI16-S-20779	5/7/06	21.2	ND	ND	ND								
TI-16	NATI16-S-20780	5/7/06	25.0	ND	ND	ND								
TI-16	NATI16-S-20781	5/7/06	28.8	272	107	ND								
TI-16	NATI16-S-20782	5/7/06	32.9	92	33	ND								
TI-16	NATI16-S-20783	5/7/06	36.5	36	9.0 J	ND								
TI-16	NATI16-S-20784	5/7/06	37.5	35	8.6 J	ND								
TI-16	NATI16-S-20785	5/7/06	42.0	454	34	ND								
TI-16	NATI16-S-20786	5/7/06	45.0	23	8.8 J	ND								
TI-16	NATI16-S-20787	5/7/06	49.8	3.1 J	ND	ND								
TI-16	NATI16-S-20788	5/7/06	53.0	3.8 J	1.7 J	ND								
TI-17	NATI17-S-20796	5/7/06	2.2	ND	ND	ND								
TI-17	NATI17-S-20797	5/7/06	5.1	ND	ND	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Co-op property sampling locations (cont.)														
TI-17	NATI17-S-20798	5/7/06	9.1	ND	ND	ND								
TI-17	NATI17-S-20799	5/7/06	13.0	ND	ND	ND								
TI-17	NATI17-S-20800	5/7/06	16.6	ND	ND	ND								
TI-17	NATI17-S-20801	5/7/06	17.4	ND	ND	ND								
TI-17	NATI17-S-20802	5/7/06	21.0	ND	ND	ND								
TI-17	NATI17-S-20803	5/7/06	24.8	2.6 J	ND	ND								
TI-17	NATI17-S-20804	5/7/06	26.2	15	1.5 J	ND								
TI-17	NATI17-S-20805	5/7/06	28.5	31	ND	ND								
TI-17	NATI17-S-20806	5/7/06	33.0	ND	7.9 J	ND								
TI-17	NATI17-S-20807	5/7/06	37.5	ND	ND	ND								
TI-17	NATI17-S-20808	5/7/06	42.0	10	ND	ND								
TI-17	NATI17-S-20809	5/7/06	45.5	ND	ND	ND								
TI-17	NATI17-S-20810	5/7/06	49.2	ND	ND	ND								
TI-17	NATI17-S-20811	5/7/06	52.9	2.1 J	ND	ND								
TI-17	NATI17-S-20812	5/7/06	56.5	ND	ND	ND								
TI-18	NATI18-S-20256	5/18/06	5.0	ND	ND	ND								
TI-18	NATI18-S-20257	5/18/06	9.0	ND	ND	ND								
TI-18	NATI18-S-20258	5/18/06	13.0	ND	ND	ND								
TI-18	NATI18-S-20259	5/18/06	16.5	ND	ND	ND								
TI-18	NATI18-S-20260	5/18/06	20.8	ND	ND	ND								
TI-18	NATI18-S-20265	5/19/06	29.0	10	ND	ND								
TI-18	NATI18-S-20676	5/19/06	33.5	56	ND	ND								
TI-18	NATI18-S-20677	5/19/06	37.0	109	ND	ND								
TI-18	NATI18-S-20678	5/19/06	41.0	400	9.2 J	ND								
TI-18	NATI18-S-20651	5/21/06	45.0	46	ND	ND								
TI-18	NATI18-S-20652	5/21/06	53.0	4.0 J	2.0 J	ND								
TI-18	NATI18-S-20653	5/21/06	57.0	ND	1.4 J	ND								
TI-18	NATI18-S-20654	5/21/06	61.0	2.9 J	1.5 J	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Co-op property sampling locations (cont.)														
TI-28	NATI28-S-20696	5/19/06	6.0	ND	ND	ND								
TI-28	NATI28-S-20236	5/18/06	9.0	ND	ND	ND								
TI-28	NATI28-S-20237	5/18/06	13.0	ND	ND	ND								
TI-28	NATI28-S-20238	5/18/06	14.8	ND	ND	ND								
TI-28	NATI28-S-20239	5/18/06	17.0	ND	ND	ND								
TI-28	NATI28-S-20240	5/18/06	20.5	18	1.7 J	ND								
TI-28	NATI28-S-20241	5/18/06	22.5	1094	4.4 J	ND								
TI-28	NATI28-S-20242	5/18/06	25.2	613	ND	ND								
TI-28	NATI28-S-20243	5/18/06	28.5	433	ND	ND								
TI-28	NATI28-S-20244	5/18/06	32.8	287	ND	ND								
TI-28	NATI28-S-20246	5/18/06	37.0	110	ND	ND								
TI-28	NATI28-S-20247	5/18/06	41.0	8.7 J	ND	ND								
TI-28	NATI28-S-20248	5/18/06	42.5	5.2 J	1.9 J	ND								
TI-28	NATI28-S-20249	5/18/06	45.0	2.8 J	ND	ND								
TI-28	NATI28-S-20250	5/19/06	49.0	ND	ND	ND								
TI-28	NATI28-S-20251	5/19/06	52.2	ND	ND	ND								
TI-28	NATI28-S-20252	5/19/06	56.5	ND	ND	ND								
TI-28	NATI28-S-20253	5/19/06	61.8	ND	ND	ND								
TI-29	NATI29-S-20698	5/19/06	6.0	ND	ND	ND								
TI-29	NATI29-S-20855	5/19/06	8.5	ND	ND	ND								
TI-29	NATI29-S-20697	5/19/06	10.5	ND	ND	ND								
TI-29	NATI29-S-20703	5/19/06	13.5	ND	ND	ND								
TI-29	NATI29-S-20956	5/21/06	15.5	ND	ND	ND								
TI-29	NATI29-S-20705	5/19/06	16.5	ND	0.7 J	ND								
TI-29	NATI29-S-20886	5/19/06	24.5	91	ND	ND								
TI-29	NATI29-S-20887	5/19/06	26.5	17	10	ND								
TI-29	NATI29-S-20888	5/19/06	29.4	9.4 J	7.8 J	ND								
TI-29	NATI29-S-20889	5/19/06	34.0	49	16	ND								
TI-29	NATI29-S-20890	5/19/06	38.0	135	8 J	ND								
TI-29	NATI29-S-20891	5/19/06	42.0	106	5.2 J	ND								

TABLE S1.1 (Cont.)

Location	Sample	Sample Date	Depth (ft BGL)	Concentration (µg/kg) Carbon Tetra-chloride	Chloro-form	Methylene Chloride	Benzene	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1-Dichloro-ethane	1,2-Dichloro-propane	Chloro-benzene	Chloro-dibromo-methane	Toluene
Co-op property sampling locations (cont.)														
TI-29	NATI29-S-20892	5/19/06	45.5	ND	ND	ND								
TI-29	NATI29-S-20893	5/19/06	49.5	43	5.9 J	ND								
TI-29	NATI29-S-20894	5/19/06	53.0	6.0 J	1.9 J	ND								
TI-29	NATI29-S-20896	5/21/06	57.0	ND	ND	ND								
TI-29	NATI29-S-20897	5/21/06	62.0	ND	ND	ND								

[a] ND, not detected at a method detection limit of 1.0 µg/kg.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 10.0 µg/kg.

TABLE S1.2 Particle size testing results for subsurface soil samples collected during the 2006 investigation at Navarre.

Location	Depth (ft BGL)	Particles Passing through Sieve Size (%)														
		3/4"	1/2"	3/8"	#4	#10	#18	#35	#40	#60	#100	#120	#140	#200	#230	#270
TI-2	13.2–13.4	100	100	100	100	97.0	93.0	87.8	86.1	81.9	79.3	78.8	78.2	77.4	77.1	76.8
	17–17.3	100	100	100	97.3	89.1	76.9	67.2	65.2	60.1	56.4	55.5	54.6	52.6	51.4	50.6
	24	100	100	97.6	90.6	83.0	73.7	66.5	64.8	59.1	46.2	42.5	38.7	33.1	30.9	29.7
	28	100	94.0	88.3	76.6	69.3	65.4	63.0	62.5	60.9	58.9	58.3	57.5	56.2	55.8	55.5
	29–29.2	100	100	100	100	100	99.0	98.3	98.1	97.5	97.0	96.9	96.7	96.2	96.0	95.7
	33.6–34	100	100	97.5	94.1	90.2	87.4	85.0	84.3	82.2	80.1	79.6	78.8	77.5	77.0	76.6
	37–38	100	100	94.4	94.0	93.9	91.7	89.7	89.2	87.5	85.4	84.9	84.2	82.9	82.3	82.0
	40	100	100	100	100	100	97.0	94.4	93.8	92.0	90.3	89.9	89.4	88.5	88.1	87.6
	45	100	90.4	90.4	86.7	81.7	79.3	77.8	77.4	76.4	75.2	74.9	74.5	73.4	73.0	72.6
	48–49	100	100	100	98.4	94.5	92.6	90.8	90.4	89.5	88.6	88.4	88.1	87.3	86.7	86.1
	50.5	100	100	100	99.8	97.9	93.4	91.0	90.5	89.3	88.1	87.7	87.0	85.4	84.5	83.6
	53	100	100	100	100	100	97.7	94.7	94.0	92.0	90.1	89.6	88.9	87.3	86.2	85.3
	58	100	100	100	100	100	99.7	98.9	98.6	97.8	97.0	96.8	96.6	95.9	95.4	94.6
	61–61.5	100	100	97.9	90.6	78.5	74.6	70.8	69.8	67.2	65.0	64.5	63.9	62.9	62.4	62.1
	71–71.5	100	100	100	100	100	99.7	99.3	99.3	98.9	98.6	98.4	98.2	97.5	97.0	96.4
TI-3	21–22	100	96.3	87.7	79.0	71.0	66.0	61.8	61.0	58.2	53.7	52.2	50.1	45.4	42.8	42.0
	34.5–35.5	100	100	100	99.5	97.3	93.3	90.6	89.9	87.9	85.6	84.6	83.5	80.7	79.4	78.6
	35.5–36	100	100	100	99.3	97.5	95.2	93.4	92.9	91.5	89.7	89.2	88.5	86.9	86.1	85.6
	42–42.5	100	100	100	100	100	96.2	94.4	94.0	93.0	92.2	92.0	91.7	90.9	90.4	89.9
TI-4	16–16.5	100	100	100	95.7	89.3	84.0	77.4	75.5	69.8	65.7	64.9	64.0	62.3	61.4	60.5
	24.5–25	100	100	100	100	100	99.1	98.3	98.1	97.0	95.8	95.4	95.0	93.9	93.5	93.3
	31–31.5	100	100	100	97.6	93.0	91.5	89.6	89.0	87.2	85.6	85.2	84.7	83.8	83.2	82.7
TI-6	41–42	100	100	100	99.4	95.1	89.5	85.8	85.1	83.3	81.6	81.1	80.6	79.3	78.7	78.1
	48.5–49	100	96.6	93.8	89.5	84.0	80.1	77.8	77.3	76.3	75.4	75.1	74.8	73.8	73.2	72.5
TI-7	33–33.5	100	100	100	96.7	88.5	84.4	81.0	80.2	78.0	75.5	74.8	73.8	71.5	70.7	70.1
	36–36.5	100	100	100	99.6	98.8	96.2	93.7	93.0	91.0	88.0	86.8	85.1	81.4	79.2	78.0
	42.5–43	100	100	100	99.0	95.7	94.3	92.0	91.2	89.1	86.9	86.3	85.4	83.0	81.9	81.4
	68–68.6	100	100	100	100	100	99.6	98.9	98.7	98.2	97.5	97.4	97.1	96.3	95.7	95.0

TABLE S1.2 (Cont.)

Location	Depth (ft BGL)	Particles Passing through Sieve Size (%)														
		3/4"	1/2"	3/8"	#4	#10	#18	#35	#40	#60	#100	#120	#140	#200	#230	#270
TI-12	29–30	100	100	100	100	100	94.0	89.6	88.7	85.6	81.5	79.9	78.0	73.6	71.4	69.8
	39–39.4	100	100	100	100	100	99.5	98.5	98.2	97.5	96.8	96.6	96.4	95.9	95.6	95.4
TI-14	10–10.5	100	100	100	99.4	98.4	95.4	93.3	92.8	90.3	80.7	76.5	72.2	64.7	61.7	59.5
	34.6–35.3	100	100	100	100	100	97.6	95.2	94.7	93.2	91.7	91.2	90.4	88.6	87.7	87.0
TI-16	5.5–5.7	100	100	100	100	100	100	99.8	99.7	99.5	99.3	99.2	99.1	98.8	98.4	97.7
	14–14.5	100	100	100	100	100	94.1	82.4	79.6	72.6	67.7	66.6	65.6	63.7	62.8	62.1
	30–30.5	100	100	100	100	100	97.4	91.8	90.6	87.4	81.4	78.8	75.6	70.1	68.5	67.2
	38–38.5	100	100	100	100	99.8	95.7	87.3	85.2	79.9	73.4	71.3	68.6	63.6	61.4	60.1
	45.5–46	82.7	59.1	47.7	36.8	34.9	32.3	27.7	26.8	24.1	20.9	20	19.1	17.2	16.4	15.8
TI-29	5–5.5	100	100	100	100	100	100	98.4	98.1	95.2	90.7	89.4	88	85.7	84.9	84
	28.5–29	100	100	100	100	100	99.9	97.3	96.6	94.6	92.7	92.2	91.6	89.9	89	88
	35–35.5	100	100	100	100	100	97.8	95.6	95.2	94.2	93.3	93.1	92.8	91.9	91.5	90.9
	48.5–49	100	100	100	100	99.9	98.3	94.8	94	92.8	91.8	91.5	91	89.6	88.7	87.6
	60–60.5	100	100	100	100	100	99.9	97.3	96.8	95.4	94.1	93.8	93.2	92.1	91.5	90.8

TABLE S1.3 Composition of subsurface soil samples collected during the 2006 investigation at Navarre.

Location	Depth (ft BGL)	Composition (%)			
		Gravel	Sand	Silt	Clay
TI-2	13.2–13.4	0.0	22.6	37.2	40.2
	17–17.3	2.7	44.7	38.4	14.2
	24	9.4	57.5	21.8	11.3
	28	23.4	20.4	28.4	27.8
	29–29.2	0.0	3.8	52.8	43.4
	33.6–34	5.9	16.6	44.4	33.1
	37–38	6.0	11.1	49.0	33.9
	40	0.0	11.5	52.6	35.9
	45	13.3	13.3	31.1	42.3
	48–49	1.6	11.1	49.0	38.3
	50.5	0.2	14.4	47.3	38.1
	53	0.0	12.7	56.0	31.3
	58	0.0	4.1	53.0	42.9
	61–61.5	9.4	27.7	21.7	41.2
	71–71.5	0.0	2.5	62.5	35.0
TI-3	21–22	21.0	33.6	28.5	16.9
	34.5–35.5	0.5	18.8	47.6	33.1
	35.5–36	0.7	12.4	50.6	36.3
	42–42.5	0.0	9.1	59.2	31.7
TI-4	16–16.5	4.3	33.4	43.9	18.4
	24.5–25	0.0	6.1	60.0	33.9
	31–31.5	2.4	13.8	50.6	33.2
TI-6	41–42	0.6	20.1	49.6	29.7
	48.5–49	10.5	15.7	54.4	19.4
TI-7	33–33.5	3.3	25.2	42.1	29.4
	36–36.5	0.4	18.2	48.1	33.3
	42.5–43	1.0	16.0	42.0	41.0
	68–68.6	0.0	3.7	55.3	41.0
TI-12	29–30	0.0	26.4	46.7	26.9
	39–39.4	0.0	4.1	77.9	18.0
TI-14	10–10.5	0.6	34.7	44.2	20.5
	34.6–35.3	0.0	11.4	65.5	23.1
TI-16	5.5–5.7	0	1.2	50.4	48.4
	14–14.5	0	36.3	24.4	39.3
	30–30.5	0	29.9	41.5	28.6
	38–38.5	0	36.4	43.2	20.4
	45.5–46	63.2	19.6	11	6.2

TABLE S1.3 (Cont.)

Location	Depth (ft BGL)	Composition (%)			
		Gravel	Sand	Silt	Clay
TI-29	5–5.5	0	14.3	52.9	32.8
	28.5–29	0	10.1	56.4	33.5
	35–35.5	0	8.1	55.1	36.8
	48.5–49	0	10.4	51.6	38
	60–60.5	0	7.9	28.7	63.4

Supplement 2:

Water Sample Data

TABLE S2.1 Groundwater samples collected during the 2006 investigation at Navarre.

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Existing well sampling						
Co-op 1	NACOOP1-W-20217	Unknown	4/8/06	14:45	DW	Sample collected from Co-op well #1 after flushing line for 10 min. Depth could not be measured because of pump.
Co-op 3	NACOOP3-W-20218	Unknown	4/8/06	14:05	DW	Sample collected from Co-op well #3 after flushing line for 10 min. Depth could not be measured because of pump. Water used by Co-op to mix fertilizer.
KDHE-1	NAKDHE1-W-20203	35–55	4/7/06	11:23	MW	Depth to water from top of casing (TOC) = 27.04 ft BGL. Depth of well = 60 ft BGL. Sample collected after purging of 21 gal.
KDHE-2	NAKDHE2-W-20205	25–45	4/7/06	13:50	MW	Depth to water from TOC = 24.32 ft BGL. Depth of well = 44.93 ft BGL. Sample collected after purging of 30 gal.
MW1	NAMW01-W-20186	43–58	4/5/06	17:07	MW	Depth to water from TOC = 31.11 ft BGL. Depth of well = 59.84 ft BGL. Sample collected after purging of 20 gal.
MW2	NAMW02-W-20188	42.8–57.8	4/6/06	9:00	MW	Depth to water from TOC = 31.42 ft BGL. Depth of well = 57.1 ft BGL. Sample collected after purging of 40 gal.
MW3	NAMW03-W-20192	44–59	4/6/06	11:48	MW	Depth to water from TOC = 31.58 ft BGL. Depth of well = 58 ft BGL. Sample collected after purging of approximately 14 gal.
MW4	NAMW04-W-20194	45–60	4/6/06	14:04	MW	Depth to water from TOC = 32.21 ft BGL. Depth of well = 61.8 ft BGL. Sample collected after purging of 20 gal.
T1	NAT1-W-20201	40–60	4/7/06	9:45	MW	Depth to water from TOC = 30.81 ft BGL. Depth of well = 61 ft BGL. Sample collected after purging of 105 gal.
L-1	NAL1-W-20211	75–95	4/8/06	9:50	MW	Depth to water from TOC = 29.34 ft BGL. Depth of well = 95.35 ft BGL. Sample collected after purging of 130 gal.
L-2	NAL2-W-20190	80–90	4/6/06	10:15	MW	Depth to water from TOC = 29.49 ft BGL. Depth of well = 90.91 ft BGL. Sample collected after purging of 31 gal.
L-3	NAL3-W-20209	80–90	4/7/06	15:50	MW	Depth to water from TOC = 29.75 ft BGL. Depth of well = 90 ft BGL. Sample collected after purging of 46 gal.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Existing well sampling (cont.)						
NW-1	NANW1-W-20215	40–50	4/8/06	11:48	MW	Depth to water from TOC = 29.34 ft BGL. Depth of well = 50.21 ft BGL. Sample collected after purging of 11 gal.
NW-2	NANW2-W-20219	35.5–45.5	4/9/06	13:40	MW	Depth to water from TOC = 28.09 ft BGL. Depth of well = 44.24 ft BGL. Sample collected after purging of 20 gal.
NW-3	NANW3-W-20945	38–48	5/25/06	13:00	MW	Depth to water from TOC = 29.60 ft BGL. Depth of well = 41.8 ft BGL. Collected after purging of 6 gal. Measured well depth during sampling is inconsistent with reported or registered screen intervals.
Anderson	NAANDER1-W-20941	68[b]	5/23/06	11:50	DW	Anderson private well at 1524 Main Street. Northeast corner of shed located southwest of intersection of Main and Third Street. First of three samples collected over a three-day period when the well was continuously pumped. This is believed to be the same well sampled by Argonne on 8/22/92 with a location identifier of DW16. It was owned by Oswald at that time.
Anderson	NAANDER2-W-20942	68[b]	5/24/06	15:30	DW	Second sample.
Anderson	NAANDER3-W-20943	68[b]	5/25/06	11:45	DW	Third sample.
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility						
TI-1	NATI1-W-20341	30–35	4/13/06	18:04	CPT	Good water recovery, immediately clear, low sediment content.
TI-1	NATI1-W-20342	38–43	4/13/06	19:20	CPT	Good water recovery, immeditely oxidized, heavy sediment load.
TI-1	NATI1-W-20344	50–55	4/13/06	20:07	CPT	Intermediate zone.
TI-1	NATI1-W-20266	67–71	4/14/06	9:46	CPT	Deep zone. Abundant water immediately. Low turbidity. 40 ft BGL of water in hole.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility (cont.)						
TI-2	NATI2-W-20276	25–30	4/21/06	11:15	CPT	High turbidity. Silt abundant. Water recovery immediately.
TI-2	NATI2-W-20277	31–36	4/21/06	11:48	CPT	4.4 ft of water upon exposure of screen to formation. Highly turbid with heavy sediment content; silty. Slow initial recovery, with rapid response after 1 hr.
TI-2	NATI2-W-20279	37–42	4/21/06	13:45	CPT	6 ft of water upon exposure of screen to formation.
TI-2	NATI2-W-20281	49–54	4/21/06	14:40	CPT	6 ft of water when screen was opened to the formation. Relatively clear water, low turbidity.
TI-2	NATI2-W-20282	66–70	4/21/06	15:30	CPT	Could not penetrate below 70 ft BGL. Heavily sedimented, high turbidity.
TI-2	NATI2-W-20432	69–72	4/7/06	15:25	CPT	Water at 47 ft BGL in riser pipe. High turbidity.
TI-3	NATI3-W-20298	32.2–37.2	4/7/06	10:22	CPT	First aliquot for VOCs analysis clear, second aliquot turbid.
TI-3	NATI3-W-20370	33–38	4/6/06	8:20	CPT	Sample collected for tritium analysis. Water turbid.
TI-3	NATI3-W-20383	43–48	4/14/06	7:50	CPT	SW corner of dry fertilizer building. Turbid.
TI-3	NATI3-W-20385	51–56	4/14/06	9:50	CPT	SW corner of dry fertilizer building. Turbid.
TI-4	NATI4-W-20325	35–40	4/10/06	9:35	CPT	West of NW corner of dry fertilizer building. Very turbid.
TI-4	NATI4-W-20374	35–40	4/13/06	9:45	CPT	Sample collected for tritium analysis. Limited water, turbid. 500 mL collected.
TI-4	NATI4-W-20388	42–47	4/14/06	13:40	CPT	West of NW corner of dry fertilizer building. Turbid.
TI-4	NATI4-W-20469	50–55	4/11/06	18:30	CPT	6 ft of water upon opening core. Water carrying tremendous amount of silt. Sampling could not be done via bailer; collected by using Waterra pump.
TI-4	NATI4-W-20470	55–60	4/11/06	20:01	CPT	Clear water recovered; little sediment fraction.
TI-4	NATI4-W-20472	61–66	4/12/06	10:10	CPT	No description recorded.
TI-4	NATI4-W-20474	67–71	4/12/06	12:00	CPT	Reached refusal at 71 ft BGL. 20 ft of water immediately in this borehole.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility (cont.)						
TI-5	NATI5-W-20373	28–33	4/13/06	10:12	CPT	SW of dry fertilizer building, west edge of former CCC/USDA facility. Very turbid. Limited water available (~6 ft) after waiting overnight. Sample collected without purge. KDHE collected a split sample for VOCs and for nitrate, with nitrate field test at 56 ppm.
TI-5	NATI5-W-20368	36–41	4/12/06	11:40	CPT	SW of dry fertilizer building, west edge of former CCC/USDA facility. Turbid and silty.
TI-5	NATI5-W-20371	49–54	4/13/06	8:10	CPT	SW of dry fertilizer building. Turbid. KDHE collected a split sample for VOCs and for nitrate, with field test for nitrate at 56 ppm.
TI-5	NATI5-W-20267	72.8–77.8	4/20/06	13:13	CPT	Immediately 6 ft of water in hole.
TI-6	NATI6-W-20353	38–43	4/22/06	15:04	CPT	South of SW corner of dry fertilizer building. Slightly turbid water.
TI-6	NATI6-W-20348	49–54	4/21/06	19:58	CPT	South of dry fertilizer building. Turbid.
TI-6	NATI6-W-20349	58–63	4/22/06	9:18	CPT	South of dry fertilizer building. Slightly turbid.
TI-6	NATI6-W-20350	68–73	4/22/06	13:20	CPT	South of dry fertilizer building. Brown, turbid water.
TI-7	NATI7-W-20269	29.5–34.5	4/20/06	14:45	CPT	9 ft of water upon exposure of screen to the formation. High turbidity. Heavy load of fine silt in water.
TI-7	NATI7-W-20270	37–42	4/20/06	15:59	CPT	18 ft of water immediately upon exposure of screen interval.
TI-7	NATI7-W-20272	45–50	4/20/06	17:10	CPT	8 ft of water immediately. Very high turbidity. High silt content.
TI-7	NATI7-W-20273	51–56	4/21/06	7:50	CPT	4 ft of water upon exposure of screen. Slow recovery. High level of turbidity.
TI-7	NATI7-W-20274	68–72	4/21/06	8:59	CPT	Very slow water recovery. Could not sample with bailer. Recovered only 50 mL of water with Waterra pump.
TI-8	NATI8-W-20530	31–36	4/28/06	9:20	CPT	Southeast of SE corner of dry fertilizer building. Slightly turbid water. Nitrate sample collected for Co-op.
TI-8	NATI8-W-20531	39–44	4/28/06	10:10	CPT	Slightly turbid. Nitrate sample collected for Co-op.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility (cont.)						
TI-8	NATI8-W-20641	45–50	4/28/06	17:15	CPT	Slow water recovery.
TI-8	NATI8-W-20732	54–59	5/2/06	18:00	CPT	Along eastern edge of former CCC/USDA property. Very silty. Nitrate sample collected for Co-op.
TI-8	NATI8-W-20731	64.5–69.5	5/2/06	17:05	CPT	Along eastern edge of former CCC/USDA property. Very silty. Nitrate sample collected for Co-op.
TI-9	NATI9-W-20609	40–45	4/24/06	14:45	CPT	Very slow water recovery. Waited 24 hr to obtain approximately 17 ft of water in hole for sampling.
TI-9	NATI9-W-20586	46–51	4/21/06	19:35	CPT	No description recorded.
TI-9	NATI9-W-20589	54–59	4/23/06	18:22	CPT	Water level 28.5 ft BGL. Waited 2 days prior to sampling because of lack of water.
TI-9	NATI9-W-20587	59–64	4/22/06	10:10	CPT	Very slow water recovery. Clear water with little turbidity.
TI-10	NATI10-W-20631	40–45	4/26/06	8:10	CPT	Slow water recovery. Waited overnight prior to sampling. Hole dry after collection of sample aliquots.
TI-10	NATI10-W-20632	46–51	4/27/06	8:59	CPT	Abundant immediate water recovery.
TI-10	NATI10-W-20635	54–59	4/27/06	10:46	CPT	16 ft of water in hole upon opening of screen to formation. Immediate recovery, moderate to low turbidity.
TI-10	NATI10-W-20637	59–64	4/27/06	13:10	CPT	Slow water recovery initially, but 30 ft of water after 1 hr.
TI-10	NATI10-W-20610	66–71	4/25/06	14:20	CPT	Water slow entering borehole, with ample water after a few minutes.
TI-11	NATI11-W-20517	26–31	4/26/06	9:12	CPT	SW corner of former CCC/USDA property. Not enough water for field parameters. Very turbid, silty water.
TI-11	NATI11-W-20523	33–38	4/27/06	9:15	CPT	SW corner of former CCC/USDA property. Not enough water for field parameters. Very turbid, silty water.
TI-11	NATI11-W-20506	40–45	4/25/06	17:58	CPT	SW corner of former CCC/USDA property. Very silty water, thick.
TI-11	NATI11-W-20500	46.3–51.3	4/23/06	17:42	CPT	SW corner of former CCC/USDA property. Turbid.
TI-11	NATI11-W-20638	52.6–57.6	4/27/06	16:15	CPT	Slow water recovery.
TI-11	NATI11-W-20639	65.9–70.9	4/27/06	17:13	CPT	Abundant water present.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility (cont.)						
TI-12	NATI12-W-20727	34–39	5/2/06	15:30	CPT	Southeast corner of former CCC/USDA property. Slightly turbid. Nitrate sample collected for Co-op.
TI-12	NATI12-W-20728	39.4–44.4	5/2/06	15:50	CPT	Silty.
TI-12	NATI12-W-20640	46–51	4/28/06	16:30	CPT	Slow water recovery.
TI-12	NATI12-W-20757	52–57	5/4/06	8:28	CPT	Southeast corner of former CCC/USDA property. Very silty water. Duplicate sample collected for Co-op.
TI-12	NATI12-W-20758	63.7–68.7	5/4/06	10:03	CPT	Very silty water. Duplicate collected for Co-op.
Vertical-profile groundwater sampling on and downgradient from the Co-op property						
TI-13	NATI13-W-20819	25–30	5/9/06	8:58	CPT	Southwest corner of flat storage building. Very silty.
TI-13	NATI13-W-20563	35–40	5/5/06	10:00	CPT	Very turbid water.
TI-13	NATI13-W-20562	42–47	5/5/06	9:30	CPT	Southwest corner of dry fertilizer building. Turbid water.
TI-13	NATI13-W-20560	48–53	5/4/06	17:20	CPT	No description recorded
TI-13	NATI13-W-20561	54–59	5/5/06	8:26	CPT	Slightly turbid.
TI-13	NATI13-W-20555	66.8–71.8	5/4/06	8:40	CPT	Southwest corner of flat storage building. Slightly turbid.
TI-14	NATI14-W-20693	26–31	5/6/06	14:17	CPT	Turbid, silty with fine sand.
TI-14	NATI14-W-20695	32–37	5/6/06	15:44	CPT	No description recorded.
TI-14	NATI14-W-20768	38–43	5/6/06	17:04	CPT	Turbid, silty.
TI-14	NATI14-W-20691	47–52	5/6/06	10:53	CPT	West side of liquid fertilizer containment. Turbid.
TI-14	NATI14-W-20692	54–59	5/6/06	13:06	CPT	Turbid water, silty.
TI-14	NATI14-W-20666	67.4–72.4	5/5/06	9:30	CPT	West side of liquid fertilizer containment. Slightly turbid.
TI-15	NATI15-W-20644	15–20	5/8/06	8:05	CPT	Slightly turbid.
TI-15	NATI15-W-20822	25–30	5/9/06	9:49	CPT	Very silty.
TI-15	NATI15-W-20765	35–40	5/7/06	7:40	CPT	Very silty, turbid.
TI-15	NATI15-W-20764	40–45	5/6/06	17:50	CPT	Silty, turbid.
TI-15	NATI15-W-20763	47–52	5/6/06	16:32	CPT	Very silty. Turbid, gray brown.
TI-15	NATI15-W-20761	67.1–72.1	5/6/06	13:10	CPT	Northwest corner of flat storage building. Turbid.
TI-16	NATI16-W-20818	25–30	5/9/06	8:47	CPT	Very silty sample.
TI-16	NATI16-W-20817	32–37	5/9/06	8:28	CPT	Very silty sample.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)						
TI-16	NATI16-W-20791	39–44	5/8/06	16:50	CPT	Very turbid water.
TI-16	NATI16-W-20816	46–51	5/9/06	7:42	CPT	South of flat storage building. Silty.
TI-16	NATI16-W-20789	60–65	5/8/06	13:05	CPT	South door of flat storage building. Slightly turbid.
TI-16	NATI16-W-20790	67–72	5/8/06	14:40	CPT	Silty, turbid.
TI-17	NATI17-W-20825	25–30	5/9/06	11:43	CPT	Northeast corner of flat storage building. Silty.
TI-17	NATI17-W-20793	32–37	5/8/06	15:23	CPT	Turbid, silty.
TI-17	NATI17-W-20826	39–44	5/9/06	11:55	CPT	Silty.
TI-17	NATI17-W-20814	46–51	5/9/06	7:35	CPT	Northeast corner of flat storage building. Silty water.
TI-17	NATI17-W-20829	53–58	5/9/06	13:13	CPT	Very silty.
TI-17	NATI17-W-20828	60–65	5/9/06	13:30	CPT	Very silty.
TI-18	NATI18-W-20921	25–30	5/23/06	15:40	CPT	South side of liquid fertilizer concrete basin. Very silty. Insufficient water for field parameters.
TI-18	NATI18-W-20655	30–35	5/21/06	15:05	CPT	Slightly turbid. Conductivity not recorded.
TI-18	NATI18-W-20831	35–40	5/10/06	7:50	CPT	South of liquid fertilizer containment. Silty.
TI-18	NATI18-W-20706	42–47	5/21/06	16:05	CPT	South side of liquid fertilizer containment. Very silty, turbid.
TI-18	NATI18-W-20707	49–54	5/21/06	17:10	CPT	Very silty.
TI-18	NATI18-W-20709	56–61	5/21/06	18:30	CPT	Very silty, turbid.
TI-18	NATI18-W-20711	66.5–71.5	5/22/06	8:40	CPT	Slightly turbid.
TI-19	NATI19-W-20231	25–30	5/11/06	23:55	CPT	Far east of feed mill building, east of railroad tracks. Silty.
TI-19	NATI19-W-20863	32–37	5/11/06	12:03	CPT	Far east of feed mill building, east of railroad tracks. Silty.
TI-19	NATI19-W-20864	39–44	5/11/06	13:29	CPT	Silty.
TI-19	NATI19-W-20870	46–51	5/11/06	14:05	CPT	Slightly silty.
TI-19	NATI19-W-20868	53–58	5/11/06	15:14	CPT	Fairly silty.
TI-19	NATI19-W-20869	60–65	5/11/06	15:49	CPT	Slightly cloudy.
TI-19	NATI19-W-20872	65.5–69.5	5/11/06	17:10	CPT	Very silty.
TI-20	NATI20-W-20913	35–40	5/22/06	7:30	CPT	Slightly turbid.
TI-20	NATI20-W-20713	42–47	5/24/06	13:30	CPT	Very silty. Insufficient water for field parameters.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)						
TI-20	NATI20-W-20914	56–61	5/23/06	14:00	CPT	No description recorded.
TI-20	NATI20-W-20922	72–77	5/23/06	16:00	CPT	Northwest corner of J. Rock wheat field at east end of Strole Street. Water slightly turbid.
TI-21	NATI21-W-20228	25–30	5/11/06	23:07	CPT	Very little water, silty. No field parameters measured.
TI-21	NATI21-W-20885	32–37	5/11/06	22:07	CPT	Very little water, silty. No field parameters measured.
TI-21	NATI21-W-20882	39–44	5/11/06	21:45	CPT	Very silty.
TI-21	NATI21-W-20881	46–51	5/11/06	21:27	CPT	Silty.
TI-21	NATI21-W-20867	53–58	5/11/06	14:50	CPT	Northeast of feed mill building. Abundant, silty water.
TI-21	NATI21-W-20880	60–65	5/11/06	21:15	CPT	Northeast corner of feed mill building. Very silty/cloudy sample. Abundant water.
TI-22	NATI22-W-20833	32–37	5/10/06	8:00	CPT	Very silty water.
TI-22	NATI22-W-20834	39–44	5/10/06	8:10	CPT	Very silty water.
TI-22	NATI22-W-20830	46–51	5/9/06	17:40	CPT	Former ballfield. Slightly turbid to clear.
TI-22	NATI22-W-20836	53–58	5/10/06	9:45	CPT	Very silty water.
TI-22	NATI22-W-20840	60–65	5/10/06	11:58	CPT	Abundant water, fairly clear to slightly cloudy.
TI-22	NATI22-W-20846	68.2–73.2	5/10/06	11:27	CPT	No description recorded.
TI-23	NATI23-W-20844	32–37	5/10/06	16:05	CPT	No description recorded.
TI-23	NATI23-W-20861	39–44	5/11/06	12:45	CPT	Southeast corner of feed mill building. Fairly silty water, abundant.
TI-23	NATI23-W-20862	46–51	5/11/06	12:15	CPT	Little water, slightly silty. No field measurements done.
TI-23	NATI23-W-20865	53–58	5/11/06	14:07	CPT	Silty sample, cloudy.
TI-23	NATI23-W-20856	60–65	5/10/06	17:49	CPT	Southeast corner of feed mill building. Silty.
TI-23	NATI23-W-20859	66.8–71.8	5/10/06	18:35	CPT	Silty.
TI-24	NATI24-W-20860	23–30	5/11/06	10:30	CPT	Very little water present. No field measurements done.
TI-24	NATI24-W-20858	32–37	5/10/06	18:00	CPT	Silty.
TI-24	NATI24-W-20838	39–44	5/10/06	11:25	CPT	Far west of feed mill building. Fairly clear water, only slightly cloudy.
TI-24	NATI24-W-20841	46–51	5/10/06	13:20	CPT	Fairly silty water.
TI-24	NATI24-W-20842	53–58	5/10/06	15:00	CPT	Slightly cloudy water.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)						
TI-24	NATI24-W-20843	60–65	5/10/06	16:10	CPT	Abundant water, very silty.
TI-24	NATI24-W-20845	69.4–74.4	5/10/06	17:20	CPT	Silty water, abundant.
TI-25	NATI25-W-20722	32–37	5/12/06	10:10	CPT	Very silty abundant water.
TI-25	NATI25-W-20875	39–44	5/11/06	18:00	CPT	Northwest corner of feed mill building. Slightly cloudy, silty, milky.
TI-25	NATI25-W-20878	46–51	5/11/06	21:00	CPT	Silty turbid water.
TI-25	NATI25-W-20884	53–58	5/11/06	21:50	CPT	Very silty.
TI-25	NATI25-W-20232	60–65	5/12/06	0:00	CPT	Very silty.
TI-25	NATI25-W-20720	66–71	5/12/06	2:00	CPT	Very silty, abundant water.
TI-25	NATI25-W-20235	72.2–77.2	5/12/06	0:50	CPT	Northwest corner of feed mill building. Very turbid/milky sample.
TI-26	NATI26-W-20721	25–30	5/12/06	2:20	CPT	Very little, very silty water. No field parameters measured.
TI-26	NATI26-W-20877	32–37	5/11/06	19:25	CPT	Southwest of feed mill building. Very turbid/silty/cloudy sample.
TI-26	NATI26-W-20883	39–44	5/11/06	21:20	CPT	Southwest of feed mill building. Very silty water.
TI-26	NATI26-W-20723	46–51	5/12/06	10:25	CPT	Very silty, abundant water.
TI-26	NATI26-W-20229	53–58	5/11/06	22:55	CPT	Southwest corner of feed mill building. Fairly silty.
TI-26	NATI26-W-20233	60–65	5/12/06	0:07	CPT	Very silty.
TI-26	NATI26-W-20719	66–71	5/12/06	1:39	CPT	Cloudy sample.
TI-26	NATI26-W-20718	71.8–76.8	5/12/06	0:47	CPT	Southwest corner of feed mill building. Turbid/silty water.
TI-27	NATI27-W-20680	25–30	5/19/06	13:30	CPT	Presumed upgradient location — west of railroad tracks and dry fertilizer building. Very little turbidity. Very little water in well (approximately 2 ft). Unable to collect water for field measurements.
TI-27	NATI27-W-20704	30–35	5/20/06	10:15	CPT	Field measurements not recorded.
TI-27	NATI27-W-20684	35–40	5/19/06	16:25	CPT	Turbid.
TI-27	NATI27-W-20699	42–47	5/20/06	8:10	CPT	Slightly turbid.
TI-27	NATI27-W-20700	49–54	5/20/06	9:20	CPT	Very turbid.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)						
TI-27	NATI27-W-20905	56–61	5/21/06	11:20	CPT	Field measurements not recorded.
TI-27	NATI27-W-20649	66.2–71.2	5/20/06	16:26	CPT	Very silty, turbid.
TI-28	NATI28-W-20904	25–30	5/21/06	12:30	CPT	In ditch east of liquid fertilizer containment. Slightly turbid.
TI-28	NATI28-W-20851	32–37	5/20/06	8:40	CPT	Very turbid.
TI-28	NATI28-W-20849	37–42	5/20/06	7:48	CPT	Slightly turbid.
TI-28	NATI28-W-20850	44–49	5/20/06	8:15	CPT	Very turbid.
TI-28	NATI28-W-20683	51–56	5/19/06	16:21	CPT	Slightly turbid.
TI-28	NATI28-W-20254	58–63	5/19/06	14:10	CPT	In ditch directly east of liquid fertilizer containment. Slightly turbid water.
TI-28	NATI28-W-20647	63–68	5/19/06	15:08	CPT	In ditch directly east of liquid fertilizer containment. Turbid.
TI-29	NATI29-W-20916	25–30	5/23/06	14:50	CPT	Very silty.
TI-29	NATI29-W-20909	32–37	5/22/06	7:35	CPT	In ditch — southern location.
TI-29	NATI29-W-20900	39–44	5/21/06	9:15	CPT	In ditch — southern location. Very silty, turbid.
TI-29	NATI29-W-20902	46–51	5/21/06	10:20	CPT	Very silty, turbid.
TI-29	NATI29-W-20903	53–58	5/21/06	13:00	CPT	Very silty, turbid. Insufficient water for field measurements.
TI-29	NATI29-W-20906	60–65	5/21/06	14:29	CPT	Very silty, turbid.
TI-29	NATI29-W-20907	66.3–69.3	5/21/06	16:04	CPT	No description recorded.
TI-30	NATI30-W-20939	32–37	5/25/06	10:20	CPT	Silty. Insufficient water for field parameters.
TI-30	NATI30-W-20920	39–44	5/23/06	12:30	CPT	Northwest corner of J. Rock wheat field, directly west of dry fertilizer building. Water turbid. Field parameters not measured.
TI-30	NATI30-W-20915	43.8–48.8	5/23/06	13:50	CPT	Directly west of dry fertilizer building and anhydrous ammonia tanks.
TI-30	NATI30-W-20911	53–58	5/23/06	7:30	CPT	West edge of wheat field — west of former CCC/USDA property. Slightly turbid.
TI-30	NATI30-W-20918	60–65	5/23/06	10:05	CPT	Very silty, turbid.
TI-30	NATI30-W-20917	75–80	5/23/06	11:05	CPT	Slightly turbid.
TI-30	NATI30-W-20712	83.5–88.5	5/24/06	7:15	CPT	No description recorded.

TABLE S2.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sampling Date	Sampling Time	Type[a]	Sample Description
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)						
TI-31	NATI31-W-20947	42–47	5/25/06	15:02	CPT	No description recorded.
TI-31	NATI31-W-20938	53–58	5/25/06	10:59	CPT	Slightly silty.
TI-31	NATI31-W-20937	60–65	5/25/06	9:45	CPT	Very silty.
TI-31	NATI31-W-20715	70.7–75.7	5/24/06	18:40	CPT	North side of shed, Beem property. Very turbid, silty.
Sampling of monitoring well installed at the TI-30 location during the 2006 investigation						
MW5	NATI30-W-20946	78–88	5/25/06	15:00	CPT/P	Deep well.

[a] Types: CPT, cone penetrometer; DW, domestic well; MW, monitoring well; P, piezometer.

[b] Total depth.

TABLE S2.2 Results of field measurements made during groundwater sampling in the 2006 investigation at Navarre.

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
Existing well sampling							
Co-op 1	NACOOP1-W-20217	Unknown	4/8/06	DW	11.4	7.42	1408
Co-op 3	NACOOP3-W-20218	Unknown	4/8/06	DW	11.4	7.34	1739
KDHE-1	NAKDHE1-W-20203	35–55	4/7/06	MW	14.3	7.33	974
KDHE-2	NAKDHE2-W-20205	25–45	4/7/06	MW	13.1	7.10	1450
MW1	NAMW01-W-20186	43–58	4/5/06	MW	20.3	6.78	1498
MW2	NAMW02-W-20188	42.8–57.8	4/6/06	MW	15.4	7.10	1420
MW3	NAMW03-W-20192	44–59	4/6/06	MW	16.6	7.10	1559
MW4	NAMW04-W-20194	45–60	4/6/06	MW	16.2	7.16	1445
T1	NAT1-W-20201	40–60	4/7/06	MW	14.3	7.14	1558
L-1	NAL1-W-20211	75–95	4/8/06	MW	13.8	7.36	1405
L-2	NAL2-W-20190	80–90	4/6/06	MW	15.5	7.40	2790
L-3	NAL3-W-20209	80–90	4/7/06	MW	14.2	NR[b]	2840
NW-1	NANW1-W-20215	40–50	4/8/06	MW	13.8	7.25	1377
NW-2	NANW2-W-20219	35.5–45.5	4/9/06	MW	17.6	7.25	1505
NW-3	NANW3-W-20945	38–48	5/25/06	MW	21.9	7.50	886
Anderson	NAANDER1-W-20941	68[c]	5/23/06	DW	NR	NR	NR
Anderson	NAANDER2-W-20942	68[c]	5/24/06	DW	NR	NR	NR
Anderson	NAANDER3-W-20943	68[c]	5/25/06	DW	NR	NR	NR
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility							
TI-1	NATI1-W-20341	30–35	4/13/06	CPT	20.9	7.18	4440
TI-1	NATI1-W-20342	38–43	4/13/06	CPT	20.1	7.13	4720
TI-1	NATI1-W-20344	50–55	4/13/06	CPT	20.1	7.17	4650
TI-1	NATI1-W-20266	67–71	4/14/06	CPT	18.9	7.57	1523
TI-2	NATI2-W-20276	25–30	4/21/06	CPT	19.6	7.18	5040
TI-2	NATI2-W-20277	31–36	4/21/06	CPT	19.6	7.06	4850
TI-2	NATI2-W-20279	37–42	4/21/06	CPT	19.5	7.24	2980
TI-2	NATI2-W-20281	49–54	4/21/06	CPT	19.6	7.47	1205
TI-2	NATI2-W-20282	66–70	4/21/06	CPT	21.6	7.66	1454
TI-2	NATI2-W-20432	69–72	4/7/06	CPT	16.3	7.62	1130
TI-3	NATI3-W-20298	32.2–37.2	4/7/06	CPT	15.6	7.25	3410
TI-3	NATI3-W-20383	43–48	4/14/06	CPT	16.2	7.49	1491
TI-3	NATI3-W-20385	51–56	4/14/06	CPT	16.7	7.59	800
TI-4	NATI4-W-20325	35–40	4/10/06	CPT	14.9	6.87	3450
TI-4	NATI4-W-20388	42–47	4/14/06	CPT	17.2	6.99	2640
TI-4	NATI4-W-20469	50–55	4/11/06	CPT	24.3	7.20	2410
TI-4	NATI4-W-20470	55–60	4/11/06	CPT	21.4	7.55	1254
TI-4	NATI4-W-20472	61–66	4/12/06	CPT	16.9	7.91	1349
TI-4	NATI4-W-20474	67–71	4/12/06	CPT	20.8	7.64	1508
TI-5	NATI5-W-20373	28–33	4/13/06	CPT	NR	NR	NR
TI-5	NATI5-W-20368	36–41	4/12/06	CPT	15.4	7.00	2190
TI-5	NATI5-W-20371	49–54	4/13/06	CPT	16.2	7.50	1057
TI-5	NATI5-W-20267	72.8–77.8	4/20/06	CPT	18.8	7.70	1694

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
Vertical-profile groundwater sampling at the former CCC/USDA grain storage facility (cont.)							
TI-6	NATI6-W-20353	38–43	4/22/06	CPT	NR	7.58	1288
TI-6	NATI6-W-20348	49–54	4/21/06	CPT	16.9	7.66	984
TI-6	NATI6-W-20349	58–63	4/22/06	CPT	16.6	7.64	1374
TI-6	NATI6-W-20350	68–73	4/22/06	CPT	17.6	7.35	1716
TI-7	NATI7-W-20269	29.5–34.5	4/20/06	CPT	20.9	7.18	4860
TI-7	NATI7-W-20270	37–42	4/20/06	CPT	17.9	7.12	4740
TI-7	NATI7-W-20272	45–50	4/20/06	CPT	19.1	7.13	4260
TI-7	NATI7-W-20273	51–56	4/21/06	CPT	15.9	7.42	4980
TI-7	NATI7-W-20274	68–72	4/21/06	CPT	19.8	7.77	1426
TI-8	NATI8-W-20530	31–36	4/28/06	CPT	15.2	7.35	1058
TI-8	NATI8-W-20531	39–44	4/28/06	CPT	14.9	7.47	868
TI-8	NATI8-W-20641	45–50	4/28/06	CPT	16.3	7.80	5160
TI-8	NATI8-W-20732	54–59	5/2/06	CPT	20.4	7.55	1147
TI-8	NATI8-W-20731	64.5–69.5	5/2/06	CPT	19.8	7.55	1648
TI-9	NATI9-W-20609	40–45	4/24/06	CPT	22.0	7.75	887
TI-9	NATI9-W-20586	46–51	4/21/06	CPT	19.9	7.66	932
TI-9	NATI9-W-20589	54–59	4/23/06	CPT	23.9	7.76	916
TI-9	NATI9-W-20587	59–64	4/22/06	CPT	19.6	7.52	1160
TI-10	NATI10-W-20631	40–45	4/26/06	CPT	15.4	7.64	880
TI-10	NATI10-W-20632	46–51	4/27/06	CPT	16.4	7.59	854
TI-10	NATI10-W-20635	54–59	4/27/06	CPT	17.1	7.67	866
TI-10	NATI10-W-20637	59–64	4/27/06	CPT	18.3	7.51	991
TI-10	NATI10-W-20610	66–71	4/25/06	CPT	17.3	7.69	1568
TI-11	NATI11-W-20517	26–31	4/26/06	CPT	NR	NR	NR
TI-11	NATI11-W-20523	33–38	4/27/06	CPT	NR	NR	NR
TI-11	NATI11-W-20506	40–45	4/25/06	CPT	NR	NR	NR
TI-11	NATI11-W-20500	46.3–51.3	4/23/06	CPT	17.8	7.53	879
TI-11	NATI11-W-20638	52.6–57.6	4/27/06	CPT	20.9	7.56	901
TI-11	NATI11-W-20639	65.9–70.9	4/27/06	CPT	19.8	7.48	1215
TI-12	NATI12-W-20727	34–39	5/2/06	CPT	20.5	7.42	966
TI-12	NATI12-W-20728	39.4–44.4	5/2/06	CPT	21.2	7.70	911
TI-12	NATI12-W-20640	46–51	4/28/06	CPT	16.7	NR	1115
TI-12	NATI12-W-20757	52–57	5/4/06	CPT	16.3	7.41	893
TI-12	NATI12-W-20758	63.7–68.7	5/4/06	CPT	16.6	7.89	916
Vertical-profile groundwater sampling on and downgradient from the Co-op property							
TI-13	NATI13-W-20819	25–30	5/9/06	CPT	15.7	7.54	1577
TI-13	NATI13-W-20563	35–40	5/5/06	CPT	13.2	7.51	1007
TI-13	NATI13-W-20562	42–47	5/5/06	CPT	17.6	7.31	1055
TI-13	NATI13-W-20560	48–53	5/4/06	CPT	18.1	7.25	974
TI-13	NATI13-W-20561	54–59	5/5/06	CPT	15.4	7.36	1165
TI-13	NATI13-W-20555	66.8–71.8	5/4/06	CPT	14.8	7.49	3910

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)							
TI-14	NATI14-W-20693	26–31	5/6/06	CPT	16.1	7.06	1436
TI-14	NATI14-W-20695	32–37	5/6/06	CPT	16.5	6.74	9720
TI-14	NATI14-W-20768	38–43	5/6/06	CPT	16.8	7.04	1192
TI-14	NATI14-W-20691	47–52	5/6/06	CPT	16.2	7.05	7610
TI-14	NATI14-W-20692	54–59	5/6/06	CPT	15.9	7.09	3860
TI-14	NATI14-W-20666	67.4–72.4	5/5/06	CPT	17.7	7.11	4980
TI-15	NATI15-W-20644	15–20	5/8/06	CPT	15.2	7.10	1277
TI-15	NATI15-W-20822	25–30	5/9/06	CPT	18.2	7.42	787
TI-15	NATI15-W-20765	35–40	5/7/06	CPT	13.4	7.5	1010
TI-15	NATI15-W-20764	40–45	5/6/06	CPT	14.9	7.45	320
TI-15	NATI15-W-20763	47–52	5/6/06	CPT	15.4	7.28	1123
TI-15	NATI15-W-20761	67.1–72.1	5/6/06	CPT	15.9	7.09	3860
TI-16	NATI16-W-20818	25–30	5/9/06	CPT	16.9	7.35	3650
TI-16	NATI16-W-20817	32–37	5/9/06	CPT	16.5	7.22	3680
TI-16	NATI16-W-20791	39–44	5/8/06	CPT	17.3	7.10	6720
TI-16	NATI16-W-20816	46–51	5/9/06	CPT	16.0	7.37	1229
TI-16	NATI16-W-20789	60–65	5/8/06	CPT	16.9	7.85	1853
TI-16	NATI16-W-20790	67–72	5/8/06	CPT	17.7	7.69	1958
TI-17	NATI17-W-20825	25–30	5/9/06	CPT	19.3	7.47	993
TI-17	NATI17-W-20793	32–37	5/8/06	CPT	NR	NR	NR
TI-17	NATI17-W-20826	39–44	5/9/06	CPT	18.9	7.37	1397
TI-17	NATI17-W-20814	46–51	5/9/06	CPT	15.1	7.53	1266
TI-17	NATI17-W-20829	53–58	5/9/06	CPT	20.1	7.38	1398
TI-17	NATI17-W-20828	60–65	5/9/06	CPT	19.5	7.33	1397
TI-18	NATI18-W-20921	25–30	5/23/06	CPT	NR	NR	NR
TI-18	NATI18-W-20655	30–35	5/21/06	CPT	19.0	7.62	NR
TI-18	NATI18-W-20831	35–40	5/10/06	CPT	11.6	6.74	13550
TI-18	NATI18-W-20706	42–47	5/21/06	CPT	18.6	6.77	1363
TI-18	NATI18-W-20707	49–54	5/21/06	CPT	19.6	6.79	1445
TI-18	NATI18-W-20709	56–61	5/21/06	CPT	19.3	6.94	6810
TI-18	NATI18-W-20711	66.5–71.5	5/22/06	CPT	17.6	7.41	1681
TI-19	NATI19-W-20231	25–30	5/11/06	CPT	13.1	4.70	5160
TI-19	NATI19-W-20863	32–37	5/11/06	CPT	14.7	7.52	1662
TI-19	NATI19-W-20864	39–44	5/11/06	CPT	15.2	7.45	1250
TI-19	NATI19-W-20870	46–51	5/11/06	CPT	15.3	7.41	1703
TI-19	NATI19-W-20868	53–58	5/11/06	CPT	15.9	7.61	1837
TI-19	NATI19-W-20869	60–65	5/11/06	CPT	15.3	7.63	691
TI-19	NATI19-W-20872	65.5–69.5	5/11/06	CPT	14.8	7.66	1237
TI-20	NATI20-W-20913	35–40	5/22/06	CPT	19.1	7.31	1328
TI-20	NATI20-W-20713	42–47	5/24/06	CPT	NR	NR	NR
TI-20	NATI20-W-20914	56–61	5/23/06	CPT	19.6	7.95	1674
TI-20	NATI20-W-20922	72–77	5/23/06	CPT	19.2	7.20	2460

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)							
TI-21	NATI21-W-20228	25–30	5/11/06	CPT	NR	NR	NR
TI-21	NATI21-W-20885	32–37	5/11/06	CPT	NR	NR	NR
TI-21	NATI21-W-20882	39–44	5/11/06	CPT	14.6	7.40	1325
TI-21	NATI21-W-20881	46–51	5/11/06	CPT	15.3	7.44	1268
TI-21	NATI21-W-20867	53–58	5/11/06	CPT	17.4	7.35	1245
TI-21	NATI21-W-20880	60–65	5/11/06	CPT	16.6	7.58	1230
TI-22	NATI22-W-20833	32–37	5/10/06	CPT	11.8	7.27	1823
TI-22	NATI22-W-20834	39–44	5/10/06	CPT	12.1	7.62	1735
TI-22	NATI22-W-20830	46–51	5/9/06	CPT	20.0	7.20	1725
TI-22	NATI22-W-20836	53–58	5/10/06	CPT	15.4	7.58	1955
TI-22	NATI22-W-20840	60–65	5/10/06	CPT	12.4	7.81	1993
TI-22	NATI22-W-20846	68.2–73.2	5/10/06	CPT	15.3	7.68	2530
TI-23	NATI23-W-20844	32–37	5/10/06	CPT	15.9	7.89	230
TI-23	NATI23-W-20861	39–44	5/11/06	CPT	16.7	7.37	1696
TI-23	NATI23-W-20862	46–51	5/11/06	CPT	NR	NR	NR
TI-23	NATI23-W-20865	53–58	5/11/06	CPT	15.3	7.41	1703
TI-23	NATI23-W-20856	60–65	5/10/06	CPT	15.4	7.92	1059
TI-23	NATI23-W-20859	66.8–71.8	5/10/06	CPT	16.0	7.72	1592
TI-24	NATI24-W-20860	23–30	5/11/06	CPT	NR	NR	NR
TI-24	NATI24-W-20858	32–37	5/10/06	CPT	18.5	7.50	1264
TI-24	NATI24-W-20838	39–44	5/10/06	CPT	17.3	7.29	1424
TI-24	NATI24-W-20841	46–51	5/10/06	CPT	15.8	7.52	1241
TI-24	NATI24-W-20842	53–58	5/10/06	CPT	17.9	7.38	1299
TI-24	NATI24-W-20843	60–65	5/10/06	CPT	16.5	7.45	1585
TI-24	NATI24-W-20845	69.4–74.4	5/10/06	CPT	16.2	7.61	1709
TI-25	NATI25-W-20722	32–37	5/12/06	CPT	16.3	7.22	1228
TI-25	NATI25-W-20875	39–44	5/11/06	CPT	17.6	7.85	1451
TI-25	NATI25-W-20878	46–51	5/11/06	CPT	15.9	7.30	1318
TI-25	NATI25-W-20884	53–58	5/11/06	CPT	15.9	7.48	1301
TI-25	NATI25-W-20232	60–65	5/12/06	CPT	13.7	7.76	1198
TI-25	NATI25-W-20720	66–71	5/12/06	CPT	NR	NR	NR
TI-25	NATI25-W-20235	72.2–77.2	5/12/06	CPT	15.0	7.55	1186
TI-26	NATI26-W-20721	25–30	5/12/06	CPT	NR	NR	NR
TI-26	NATI26-W-20877	32–37	5/11/06	CPT	15.5	7.58	2580
TI-26	NATI26-W-20883	39–44	5/11/06	CPT	16.8	7.74	3360
TI-26	NATI26-W-20723	46–51	5/12/06	CPT	15.2	7.69	1505
TI-26	NATI26-W-20229	53–58	5/11/06	CPT	14.9	7.69	1703
TI-26	NATI26-W-20233	60–65	5/12/06	CPT	14.3	7.72	1531
TI-26	NATI26-W-20719	66–71	5/12/06	CPT	14.8	7.68	1657
TI-26	NATI26-W-20718	71.8–76.8	5/12/06	CPT	15.6	7.74	1921
TI-27	NATI27-W-20680	25–30	5/19/06	CPT	NR	NR	NR
TI-27	NATI27-W-20704	30–35	5/20/06	CPT	NR	NR	NR
TI-27	NATI27-W-20684	35–40	5/19/06	CPT	20.5	7.01	3220
TI-27	NATI27-W-20699	42–47	5/20/06	CPT	16.3	7.63	1793

TABLE S2.2 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Type[a]	Temperature (°C)	pH	Conductivity (µS/cm)
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)							
TI-27	NATI27-W-20700	49–54	5/20/06	CPT	18.7	7.53	955
TI-27	NATI27-W-20905	56–61	5/21/06	CPT	21.6	7.58	2150
TI-27	NATI27-W-20649	66.2–71.2	5/20/06	CPT	18.2	7.39	1324
TI-28	NATI28-W-20904	25–30	5/21/06	CPT	21.2	7.26	5720
TI-28	NATI28-W-20851	32–37	5/20/06	CPT	15.2	7.23	4490
TI-28	NATI28-W-20849	37–42	5/20/06	CPT	16.3	7.16	1675
TI-28	NATI28-W-20850	44–49	5/20/06	CPT	15.0	7.92	2100
TI-28	NATI28-W-20683	51–56	5/19/06	CPT	17.8	7.86	1313
TI-28	NATI28-W-20254	58–63	5/19/06	CPT	17.2	7.10	1644
TI-28	NATI28-W-20647	63–68	5/19/06	CPT	17.1	7.20	2140
TI-29	NATI29-W-20916	25–30	5/23/06	CPT	18.6	6.93	1628
TI-29	NATI29-W-20909	32–37	5/22/06	CPT	19.3	8.41	1284
TI-29	NATI29-W-20900	39–44	5/21/06	CPT	18.2	7.76	7540
TI-29	NATI29-W-20902	46–51	5/21/06	CPT	18.6	7.16	7700
TI-29	NATI29-W-20903	53–58	5/21/06	CPT	NR	NR	NR
TI-29	NATI29-W-20906	60–65	5/21/06	CPT	20.0	7.61	3720
TI-29	NATI29-W-20907	66.3–69.3	5/21/06	CPT	16.8	7.57	2350
TI-30	NATI30-W-20939	32–37	5/25/06	CPT	NR	NR	NR
TI-30	NATI30-W-20920	39–44	5/23/06	CPT	NR	NR	NR
TI-30	NATI30-W-20915	43.8–48.8	5/23/06	CPT	18.6	7.57	1036
TI-30	NATI30-W-20911	53–58	5/23/06	CPT	14.9	7.85	978
TI-30	NATI30-W-20918	60–65	5/23/06	CPT	19.4	7.70	1230
TI-30	NATI30-W-20917	75–80	5/23/06	CPT	15.8	7.69	1882
TI-30	NATI30-W-20712	83.5–88.5	5/24/06	CPT	16.6	7.57	3740
TI-31	NATI31-W-20947	42–47	5/25/06	CPT	16.2	7.62	1374
TI-31	NATI31-W-20938	53–58	5/25/06	CPT	15.4	7.56	767
TI-31	NATI31-W-20937	60–65	5/25/06	CPT	15.6	7.57	2750
TI-31	NATI31-W-20715	70.7–75.7	5/24/06	CPT	19.8	7.47	3730
Sampling of monitoring well installed at the TI-30 location during the 2006 investigation							
MW5	NATI30-W-20946	78–88	5/25/06	CPT/P	19.1	7.81	2360

[a] Types: CPT, cone penetrometer; DW, domestic well; MW, monitoring well; P, piezometer.

[b] NR, not recorded.

[c] Total depth.

TABLE S2.3 Organic results for water samples collected during the 2006 investigation at Navarre, Kansas.

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Existing well sampling										
Co-op 1	NACOOP1-W-20217	Unknown	4/8/06	DW	1.2	0.8 J[b]	ND[c]	ND		
Co-op 3	NACOOP3-W-20218	Unknown	4/8/06	DW	197	44	3.6	0.2 J		
KDHE-1	NAKDHE1-W-20203	35–55	4/7/06	MW	0.1 J	ND	ND	ND		
KDHE-2	NAKDHE2-W-20205	25–45	4/7/06	MW	ND	ND	ND	ND		
MW1	NAMW01-W-20186	43–58	4/5/06	MW	59	12	ND	ND		
MW2	NAMW02-W-20188	42.8–57.8	4/6/06	MW	27	7.7	ND	ND		
MW3	NAMW03-W-20192	44–59	4/6/06	MW	83	20	ND	0.1 J		
MW4	NAMW04-W-20194	45–60	4/6/06	MW	194	21	ND	ND		
T1	NAT1-W-20201	40–60	4/7/06	MW	118	20	ND	ND		
L-1	NAL1-W-20211	75–95	4/8/06	MW	54	11	ND	ND		
L-2	NAL2-W-20190	80–90	4/6/06	MW	0.2 J	ND	ND	ND		
L-3	NAL3-W-20209	80–90	4/7/06	MW	ND	ND	ND	ND		
NW-1	NANW1-W-20215	40–50	4/8/06	MW	1.1	0.3 J	ND	ND		
NW-2	NANW2-W-20219	35.5–45.5	4/9/06	MW	313	74	3.2	0.2 J		
NW-3	NANW3-W-20945	38–48	5/25/06	MW	34	2.0	ND	ND		
Anderson	NAANDER1-W-20941	68[d]	5/23/06	DW	36	6.0	ND	ND		
Anderson	NAANDER2-W-20942	68[d]	5/24/06	DW	20	3.5	ND	ND		
Anderson	NAANDER3-W-20943	68[d]	5/25/06	DW	17	2.7	ND	ND		
Vertical-profile groundwater sampling at the former CCC/USDA facility										
TI-1	NATI1-W-20341	30–35	4/13/06	CPT	181	60	10	0.2 J		
TI-1	NATI1-W-20342	38–43	4/13/06	CPT	177	64	10	0.2 J		
TI-1	NATI1-W-20344	50–55	4/13/06	CPT	127	56	8.2	ND		
TI-1	NATI1-W-20266	67–71	4/14/06	CPT	ND	ND	ND	ND		
TI-2	NATI2-W-20276	25–30	4/21/06	CPT	2.2	2.0	ND	ND		
TI-2	NATI2-W-20277	31–36	4/21/06	CPT	8.7	7.8	ND	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling at the former CCC/USDA facility (cont.)										
TI-2	NATI2-W-20279	37–42	4/21/06	CPT	77	9.2	ND	< 0.1		
TI-2	NATI2-W-20281	49–54	4/21/06	CPT	9.8	2.7	ND	ND		
TI-2	NATI2-W-20282	66–70	4/21/06	CPT	14	2.8	ND	ND		
TI-2	NATI2-W-20432	69–72	4/7/06	CPT	ND	ND	ND	ND		
TI-3	NATI3-W-20298	32.2–37.2	4/7/06	CPT	27	7.9	ND	ND		
TI-3	NATI3-W-20383	43–48	4/14/06	CPT	72	12	ND	ND		
TI-3	NATI3-W-20385	51–56	4/14/06	CPT	7.6	1.6	ND	ND		
TI-4	NATI4-W-20325	35–40	4/10/06	CPT	76	55	3.6	0.2 J		
TI-4	NATI4-W-20388	42–47	4/14/06	CPT	99	75	6.1	ND		
TI-4	NATI4-W-20469	50–55	4/11/06	CPT	40	58	0.8 J	0.2 J		
TI-4	NATI4-W-20470	55–60	4/11/06	CPT	23	7.0	ND	< 0.1		
TI-4	NATI4-W-20472	61–66	4/12/06	CPT	0.6 J	3.6	ND	ND		
TI-4	NATI4-W-20474	67–71	4/12/06	CPT	ND	ND	ND	ND		
TI-5	NATI5-W-20373	28–33	4/13/06	CPT	1.1	1.2	ND	ND		
TI-5	NATI5-W-20368	36–41	4/12/06	CPT	1.1	2.0	ND	ND		
TI-5	NATI5-W-20371	49–54	4/13/06	CPT	6.3	0.4 J	ND	ND		
TI-5	NATI5-W-20267	72.8–77.8	4/20/06	CPT	ND	ND	ND	ND		
TI-6	NATI6-W-20353	38–43	4/22/06	CPT	1.3	1.0	ND	ND		
TI-6	NATI6-W-20348	49–54	4/21/06	CPT	0.4 J	ND	ND	ND		
TI-6	NATI6-W-20349	58–63	4/22/06	CPT	1.5	0.1 J	ND	ND		
TI-6	NATI6-W-20350	68–73	4/22/06	CPT	ND	ND	ND	ND		
TI-7	NATI7-W-20269	29.5–34.5	4/20/06	CPT	3.8	1.7	ND	ND		
TI-7	NATI7-W-20270	37–42	4/20/06	CPT	3.8	1.9	ND	ND		
TI-7	NATI7-W-20272	45–50	4/20/06	CPT	5.6	2.7	ND	ND		
TI-7	NATI7-W-20273	51–56	4/21/06	CPT	1.9	2.0	ND	ND		
TI-7	NATI7-W-20274	68–72	4/21/06	CPT	0.5 J	0.3 J	ND	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling at the former CCC/USDA facility (cont.)										
TI-8	NATI8-W-20530	31–36	4/28/06	CPT	0.1 J	ND	ND	ND		
TI-8	NATI8-W-20531	39–44	4/28/06	CPT	0.2 J	ND	ND	ND		
TI-8	NATI8-W-20641	45–50	4/28/06	CPT	0.2 J	ND	ND	ND		
TI-8	NATI8-W-20732	54–59	5/2/06	CPT	0.5 J	ND	ND	ND		
TI-8	NATI8-W-20731	64.5–69.5	5/2/06	CPT	ND	ND	ND	ND		
TI-9	NATI9-W-20609	40–45	4/24/06	CPT	ND	ND	ND	ND		
TI-9	NATI9-W-20586	46–51	4/21/06	CPT	1.2	ND	ND	ND		
TI-9	NATI9-W-20589	54–59	4/23/06	CPT	0.8 J	ND	ND	ND		
TI-9	NATI9-W-20587	59–64	4/22/06	CPT	1.5	ND	ND	ND		
TI-10	NATI10-W-20631	40–45	4/26/06	CPT	0.4 J	ND	36	ND	41	27
TI-10	NATI10-W-20632	46–51	4/27/06	CPT	0.4 J	ND	11	ND	25	11
TI-10	NATI10-W-20635	54–59	4/27/06	CPT	0.4 J	ND	ND	ND	2.4	0
TI-10	NATI10-W-20637	59–64	4/27/06	CPT	0.3 J	ND	ND	ND	1.9	1.1
TI-10	NATI10-W-20610	66–71	4/25/06	CPT	ND	ND	ND	ND		
TI-11	NATI11-W-20517	26–31	4/26/06	CPT	ND	ND	ND	ND		
TI-11	NATI11-W-20523	33–38	4/27/06	CPT	ND	0.2 J	9.5	ND	60	1
TI-11	NATI11-W-20506	40–45	4/25/06	CPT	ND	ND	ND	ND		
TI-11	NATI11-W-20500	46.3–51.3	4/23/06	CPT	0.9 J	0.1 J	ND	ND		
TI-11	NATI11-W-20638	52.6–57.6	4/27/06	CPT	0.6 J	ND	ND	ND		
TI-11	NATI11-W-20639	65.9–70.9	4/27/06	CPT	0.4 J	ND	ND	ND		
TI-12	NATI12-W-20727	34–39	5/2/06	CPT	ND	ND	ND	ND		
TI-12	NATI12-W-20728	39.4–44.4	5/2/06	CPT	ND	ND	ND	ND		
TI-12	NATI12-W-20640	46–51	4/28/06	CPT	ND	ND	ND	ND		
TI-12	NATI12-W-20757	52–57	5/4/06	CPT	ND	ND	ND	ND		
TI-12	NATI12-W-20758	63.7–68.7	5/4/06	CPT	ND	ND	ND	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling on and downgradient from the Co-op property										
TI-13	NATI13-W-20819	25–30	5/9/06	CPT	27	16	ND	ND		
TI-13	NATI13-W-20563	35–40	5/5/06	CPT	387	197	0.6 J	ND		
TI-13	NATI13-W-20562	42–47	5/5/06	CPT	116	60	1.2	0.1 J		
TI-13	NATI13-W-20560	48–53	5/4/06	CPT	22	5.4	ND	ND		
TI-13	NATI13-W-20561	54–59	5/5/06	CPT	22	5.8	ND	ND		
TI-13	NATI13-W-20555	66.8–71.8	5/4/06	CPT	0.6 J	0.3 J	ND	ND		
TI-14	NATI14-W-20693	26–31	5/6/06	CPT	148	36	1.9	0.2 J		
TI-14	NATI14-W-20695	32–37	5/6/06	CPT	198	71	ND	0.3 J		
TI-14	NATI14-W-20768	38–43	5/6/06	CPT	260	126	8.0	0.5 J		
TI-14	NATI14-W-20691	47–52	5/6/06	CPT	229	90	5.2	0.4 J		
TI-14	NATI14-W-20692	54–59	5/6/06	CPT	72	48	2.8	0.2 J		
TI-14	NATI14-W-20666	67.4–72.4	5/5/06	CPT	6.0	280	12.6	ND		
TI-15	NATI15-W-20644	15–20	5/8/06	CPT	ND	ND	ND	ND		
TI-15	NATI15-W-20822	25–30	5/9/06	CPT	45	9.2	ND	ND		
TI-15	NATI15-W-20765	35–40	5/7/06	CPT	21	6.0	ND	ND		
TI-15	NATI15-W-20764	40–45	5/6/06	CPT	3.4	1.7	ND	ND		
TI-15	NATI15-W-20763	47–52	5/6/06	CPT	2.4	2.3	ND	ND		
TI-15	NATI15-W-20761	67.1–72.1	5/6/06	CPT	ND	ND	ND	ND		
TI-16	NATI16-W-20818	25–30	5/9/06	CPT	851	535	2.6	0.1 J		
TI-16	NATI16-W-20817	32–37	5/9/06	CPT	866	535	ND	0.3 J		
TI-16	NATI16-W-20791	39–44	5/8/06	CPT	189	123	6.0	0.3 J		
TI-16	NATI16-W-20816	46–51	5/9/06	CPT	56	32	ND	ND		
TI-16	NATI16-W-20789	60–65	5/8/06	CPT	0.9 J	0.6 J	ND	ND		
TI-16	NATI16-W-20790	67–72	5/8/06	CPT	0.8 J	2.4	ND	ND		
TI-17	NATI17-W-20825	25–30	5/9/06	CPT	44	3.2	ND	ND		
TI-17	NATI17-W-20793	32–37	5/8/06	CPT	1.5	0.7 J	ND	ND		
TI-17	NATI17-W-20826	39–44	5/9/06	CPT	1.7	1.6	ND	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)										
TI-17	NATI17-W-20814	46–51	5/9/06	CPT	1.1	0.6 J	ND	ND		
TI-17	NATI17-W-20829	53–58	5/9/06	CPT	2.5	1.5	ND	ND		
TI-17	NATI17-W-20828	60–65	5/9/06	CPT	0.5 J	0.9 J	ND	ND		
TI-18	NATI18-W-20921	25–30	5/23/06	CPT	57	11	ND	ND		
TI-18	NATI18-W-20655	30–35	5/21/06	CPT	266	27	1.1	ND		
TI-18	NATI18-W-20831	35–40	5/10/06	CPT	782	47	2.7	0.2 J		
TI-18	NATI18-W-20706	42–47	5/21/06	CPT	218	48	7.3	ND		
TI-18	NATI18-W-20707	49–54	5/21/06	CPT	325	92	2.8	0.4 J		
TI-18	NATI18-W-20709	56–61	5/21/06	CPT	70	35	1.5	ND		
TI-18	NATI18-W-20711	66.5–71.5	5/22/06	CPT	ND	0.2 J	ND	ND		
TI-19	NATI19-W-20231	25–30	5/11/06	CPT	ND	ND	ND	ND		
TI-19	NATI19-W-20863	32–37	5/11/06	CPT	ND	ND	ND	ND		
TI-19	NATI19-W-20864	39–44	5/11/06	CPT	0.3 J	ND	ND	ND		
TI-19	NATI19-W-20870	46–51	5/11/06	CPT	0.3 J	ND	ND	ND		
TI-19	NATI19-W-20868	53–58	5/11/06	CPT	0.3 J	ND	ND	ND		
TI-19	NATI19-W-20869	60–65	5/11/06	CPT	ND	ND	ND	ND		
TI-19	NATI19-W-20872	65.5–69.5	5/11/06	CPT	ND	ND	ND	ND		
TI-20	NATI20-W-20913	35–40	5/22/06	CPT	15	5.4	ND	ND		
TI-20	NATI20-W-20713	42–47	5/24/06	CPT	13	3.4	ND	ND		
TI-20	NATI20-W-20914	56–61	5/23/06	CPT	7.8	7.4	ND	ND		
TI-20	NATI20-W-20922	72–77	5/23/06	CPT	ND	ND	ND	ND		
TI-21	NATI21-W-20228	25–30	5/11/06	CPT	ND	ND	ND	ND		
TI-21	NATI21-W-20885	32–37	5/11/06	CPT	0.9 J	0.9 J	ND	ND		
TI-21	NATI21-W-20882	39–44	5/11/06	CPT	0.9 J	0.8 J	ND	ND		
TI-21	NATI21-W-20881	46–51	5/11/06	CPT	1.2	0.8 J	ND	ND		
TI-21	NATI21-W-20867	53–58	5/11/06	CPT	0.7 J	0.3 J	ND	ND		
TI-21	NATI21-W-20880	60–65	5/11/06	CPT	ND	0.4 J	ND	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)										
TI-22	NATI22-W-20833	32–37	5/10/06	CPT	120	17	ND	0.2 J		
TI-22	NATI22-W-20834	39–44	5/10/06	CPT	26	12	ND	ND		
TI-22	NATI22-W-20830	46–51	5/9/06	CPT	119	31	1.3	0.1 J		
TI-22	NATI22-W-20836	53–58	5/10/06	CPT	356	29	1.1	ND		
TI-22	NATI22-W-20840	60–65	5/10/06	CPT	116	21	1.1	ND		
TI-22	NATI22-W-20846	68.2–73.2	5/10/06	CPT	ND	ND	ND	ND		
TI-23	NATI23-W-20844	32–37	5/10/06	CPT	24	2.6	ND	ND		
TI-23	NATI23-W-20861	39–44	5/11/06	CPT	11	6.5	ND	ND		
TI-23	NATI23-W-20862	46–51	5/11/06	CPT	5.1	2.0	ND	ND		
TI-23	NATI23-W-20865	53–58	5/11/06	CPT	1.5	0.5 J	ND	ND		
TI-23	NATI23-W-20856	60–65	5/10/06	CPT	1.0	ND	ND	ND		
TI-23	NATI23-W-20859	66.8–71.8	5/10/06	CPT	ND	ND	ND	ND		
TI-24	NATI24-W-20860	23–30	5/11/06	CPT	ND	ND	ND	ND		
TI-24	NATI24-W-20858	32–37	5/10/06	CPT	ND	ND	ND	ND		
TI-24	NATI24-W-20838	39–44	5/10/06	CPT	1.5	1.9	ND	ND		
TI-24	NATI24-W-20841	46–51	5/10/06	CPT	1.8	2.4	ND	ND		
TI-24	NATI24-W-20842	53–58	5/10/06	CPT	1.4	1.7	ND	ND		
TI-24	NATI24-W-20843	60–65	5/10/06	CPT	1.0	0.6 J	ND	ND		
TI-24	NATI24-W-20845	69.4–74.4	5/10/06	CPT	ND	ND	ND	ND		
TI-25	NATI25-W-20722	32–37	5/12/06	CPT	ND	ND	ND	ND		
TI-25	NATI25-W-20875	39–44	5/11/06	CPT	ND	0.2 J	ND	ND		
TI-25	NATI25-W-20878	46–51	5/11/06	CPT	1.7	1.4	ND	ND		
TI-25	NATI25-W-20884	53–58	5/11/06	CPT	0.8 J	0.2 J	ND	ND		
TI-25	NATI25-W-20232	60–65	5/12/06	CPT	ND	ND	ND	ND		
TI-25	NATI25-W-20720	66–71	5/12/06	CPT	ND	ND	ND	ND		
TI-25	NATI25-W-20235	72.2–77.2	5/12/06	CPT	ND	ND	ND	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)										
TI-26	NATI26-W-20721	25–30	5/12/06	CPT	1.1	0.7 J	ND	ND		
TI-26	NATI26-W-20877	32–37	5/11/06	CPT	2.7	3.7	ND	ND		
TI-26	NATI26-W-20883	39–44	5/11/06	CPT	1.0	3.5	ND	ND		
TI-26	NATI26-W-20723	46–51	5/12/06	CPT	5.0	4.3	ND	ND		
TI-26	NATI26-W-20229	53–58	5/11/06	CPT	4.8	3.1	ND	ND		
TI-26	NATI26-W-20233	60–65	5/12/06	CPT	7.7	11	ND	ND		
TI-26	NATI26-W-20719	66–71	5/12/06	CPT	3.2	8.1	ND	ND		
TI-26	NATI26-W-20718	71.8–76.8	5/12/06	CPT	ND	ND	ND	ND		
TI-27	NATI27-W-20680	25–30	5/19/06	CPT	1.0	0.7 J	ND	ND		
TI-27	NATI27-W-20704	30–35	5/20/06	CPT	1.1[e]	2.3[e]	0.2 J[e]	ND		
TI-27	NATI27-W-20684	35–40	5/19/06	CPT	ND	1.6	ND	ND		
TI-27	NATI27-W-20699	42–47	5/20/06	CPT	7.9[e]	3.5[e]	ND	ND		
TI-27	NATI27-W-20700	49–54	5/20/06	CPT	2.0[e]	0.7 J[e]	ND	ND		
TI-27	NATI27-W-20905	56–61	5/21/06	CPT	ND	0.6 J	ND	ND		
TI-27	NATI27-W-20649	66.2–71.2	5/20/06	CPT	ND	ND	ND	ND		
TI-28	NATI28-W-20904	25–30	5/21/06	CPT	2692	238	1.3	1.3		
TI-28	NATI28-W-20851	32–37	5/20/06	CPT	3104	646	6.3	3.1		
TI-28	NATI28-W-20849	37–42	5/20/06	CPT	97	91	1.0	ND		
TI-28	NATI28-W-20850	44–49	5/20/06	CPT	88	14	ND	0.1 J		
TI-28	NATI28-W-20683	51–56	5/19/06	CPT	12	2.7	ND	ND		
TI-28	NATI28-W-20254	58–63	5/19/06	CPT	15	8.9	ND	ND		
TI-28	NATI28-W-20647	63–68	5/19/06	CPT	ND	ND	ND	ND		
TI-29	NATI29-W-20916	25–30	5/23/06	CPT	39	39	2.6	ND		
TI-29	NATI29-W-20909	32–37	5/22/06	CPT	75	55	4.2	ND		
TI-29	NATI29-W-20900	39–44	5/21/06	CPT	269	87	3.9	ND		
TI-29	NATI29-W-20902	46–51	5/21/06	CPT	182	86	3.3	ND		
TI-29	NATI29-W-20903	53–58	5/21/06	CPT	18	31	1.5	ND		

TABLE S2.3 (Cont.)

Location	Sample	Depth (ft below TOC)	Sample Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride	Tetra-chloroethene	Benzene	Toluene
Vertical-profile groundwater sampling on and downgradient from the Co-op property (cont.)										
TI-29	NATI29-W-20906	60–65	5/21/06	CPT	9.4	21	0.9 J	ND		
TI-29	NATI29-W-20907	66.3–69.3	5/21/06	CPT	3.4	4.3	ND	ND		
TI-30	NATI30-W-20939	32–37	5/25/06	CPT	0.4 J	0.5 J	ND	ND		
TI-30	NATI30-W-20920	39–44	5/23/06	CPT	1.1	0.4 J	ND	ND		
TI-30	NATI30-W-20915	43.8–48.8	5/23/06	CPT	2.5	0.9 J	ND	ND		
TI-30	NATI30-W-20911	53–58	5/23/06	CPT	62	6.9	ND	ND		
TI-30	NATI30-W-20918	60–65	5/23/06	CPT	43	5.5	ND	ND		
TI-30	NATI30-W-20917	75–80	5/23/06	CPT	ND	ND	ND	ND		
TI-30	NATI30-W-20712	83.5–88.5	5/24/06	CPT	ND	ND	ND	ND		
TI-31	NATI31-W-20947	42–47	5/25/06	CPT	30	4.3	ND	ND		
TI-31	NATI31-W-20938	53–58	5/25/06	CPT	91	14	ND	ND		
TI-31	NATI31-W-20937	60–65	5/25/06	CPT	28	3.4	ND	ND		
TI-31	NATI31-W-20715	70.7–75.7	5/24/06	CPT	ND	ND	ND	ND		
Sampling of monitoring well installed at the TI-30 location during the 2006 investigation										
MW5	NATI30-W-20946	78–88	5/25/06	CPT/P	0.4 J	ND	ND	ND		

[a] Sample types: CPT, cone penetrometer; DW, domestic well; MW, monitoring well; P, piezometer.

[b] Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 µg/L.

[c] ND, not detected at a method detection limit of 0.1 µg/L.

[d] Total depth.

[e] Cross-contamination possible. See discussion in Supplement 4, Section S4.1.3.

TABLE S2.4 Tritium results from 2006 investigation at Navarre.

Location	Sample	Depth (ft BGL)	Sampling Date	Type[a]	Analysis Date	Tritium (TU)
Existing well sampling						
Co-op 1	NACOOP1-W-20217	Unknown	4/8/06	DW	6/13/06	5.22 ± 0.17
Co-op 3	NACOOP3-W-20218	Unknown	4/8/06	DW	6/13/06	3.82 ± 0.13
KDHE-1	NAKDHE1-W-20203	35–55	4/7/06	MW	6/13/06	0.42 ± 0.09
KDHE-2	NAKDHE2-W-20205	25–45	4/7/06	MW	6/13/06	4.46 ± 0.15
T1	NAT1-W-20201	40–60	4/7/06	MW	6/13/06	4.24 ± 0.14
L-1	NAL1-W-20211	75–95	4/8/06	MW	6/13/06	4.70 ± 0.15
L-2	NAL2-W-20190	80–90	4/6/06	MW	6/13/06	1.06 ± 0.09
L-3	NAL3-W-20209	80–90	4/7/06	MW	6/13/06	0.71 ± 0.09
NW-1	NANW1-W-20215	40–50	4/8/06	MW	6/13/06	4.90 ± 0.16
NW-2	NANW2-W-20219	35.5–45.5	4/9/06	MW	6/13/06	4.67 ± 0.15
NW-3	NANW3-W-20945	38–48	5/25/06	MW	8/4/06	1.59 ± 0.09
Cone penetrometer sampling at targeted investigation locations						
TI-2	NATI2-W-20433	69–72	4/7/06	CPT	6/13/06	0.03 ± 0.09
TI-3	NATI3-W-20370	33–38	4/6/06	CPT	6/13/06	4.45 ± 0.15
TI-4	NATI4-W-20374	35–40	4/13/06	CPT	6/13/06	4.95 ± 0.20
TI-4	NATI4-W-20469	50–55	4/11/06	CPT	6/13/06	4.07± 0.20
TI-4	NATI4-W-20470	55–60	4/11/06	CPT	6/13/06	2.64 ± 0.09
TI-4	NATI4-W-20472	61–66	4/12/06	CPT	6/13/06	0.45 ± 0.09
TI-4	NATI4-W-20474	67–71	4/12/06	CPT	6/13/06	0.13 ± 0.09
TI-5	NATI5-W-20368	36–41	4/12/06	CPT	6/13/06	5.83 ± 0.19
TI-5	NATI5-W-20371	49–54	4/13/06	CPT	6/13/06	1.40 ± 0.09
Sampling of monitoring well installed at the TI-30 location during the 2006 targeted investigation						
MW5	NATI30-W-20946	78–88	5/25/06	CPT/P	8/4/06	0.03 ± 0.09

[a] Types: CPT, penetrometer; DW, domestic well; MW, monitoring well; P, piezometer.

Supplement 3:

Water Level Data

TABLE S3.1 Hand-measured water levels at Navarre.

Well	Screen Interval Depth (ft BGL)	Top of Casing Elevation[a] (ft AMSL)	Depth of Bottom of Hole (ft TOC)[b]	April 24–25, 2006			May 11, 2006			November 3, 2006[c]			November 28, 2006		
				Time	Depth to Water (ft TOC)	Groundwater Elevation (ft AMSL)	Time	Depth to Water (ft TOC)	Groundwater Elevation (ft AMSL)	Time	Depth to Water (ft TOC)	Groundwater Elevation (ft AMSL)	Time	Depth to Water (ft TOC)	Groundwater Elevation (ft AMSL)
MW1	43–58	1351.36	59.85	18:10	31.75	1319.61	18:36	31.53	1319.83	13:16	34.1	1317.26	15:36	34.24	1317.12
MW2	42.8–57.8	1352.31	56.89	17:59	32.13	1320.18	18:07	31.82	1320.49	12:55	34.36	1317.95	15:25	34.54	1317.77
MW3	44–59	1352.88	58.30	17:24	32.41	1320.47	17:51	32.10	1320.78	13:30	34.64	1318.24	15:06	34.87	1318.01
MW4	45–60	1352.94	61.95	17:17	32.88	1320.06	17:45	32.58	1320.36				14:58	35.33	1317.61
MW5[d]	78–88	1353.65[e]	88.00							11:50	32.23	1321.42	14:27	33.44	1320.21
KDHE-1	39–59[f]	1350.56	59.90	16:37	27.55	1323.01	16:23	27.56	1323.00	10:44	29.8	1320.76	13:34	29.86	1320.70
KDHE-2[g]	25–45	1347.86	54.95	16:18	25.32	1322.54	17:07	24.67	1323.19	11:38	26.81	1321.05	14:12	27.32	1320.54
NW-1	40–50	1351.93	50.25	16:02	29.95	1321.98	16:56	29.45	1322.48				13:54	32.26	1319.67
NW-2	35.5–45.5	1350.93	44.75	15:46	28.59	1322.34	16:40	28.21	1322.72				13:20	30.91	1320.02
NW-3[g]	38–48	1347.14	41.60	17:02	27.6[h]	1319.54	17:31	28.62	1318.52	12:21	31.56	1315.58	14:47	31.52	1315.62
L-1	75–95	1350.03	95.35	17:47	29.90	1320.13	18:00	29.61	1320.42	12:40	32.17	1317.86	15:16	32.34	1317.69
L-2	80–90	1350.19	90.90	18:03	30.14	1320.05	18:15	29.87	1320.32	13:06	32.38	1317.81	15:28	32.57	1317.62
L-3	80–90	1347.55	90.06	18:16	30.38	1317.17	17:22	29.82	1317.73	12:05	32.76	1314.79	14:35	32.8	1314.75
T1	51–61[f]	1351.72	61.30	17:34	31.60	1320.12	17:55	31.29	1320.43	12:45	33.86	1317.86	15:10	34.02	1317.70

[a] Measured in Papadopulos (2000) investigation, except as noted.

[b] Measured by Argonne, April 24, 2006. Depths are in feet below the top of the casing.

[c] Incomplete set, repeated November 28, 2006.

[d] One-inch piezometer installed at the edge of field west of the Co-op during the 2006 investigation, at the TI-30 location. Not available for water level measurement until November 2006.

[e] Surveyed by Schwab-Eaton for Argonne 2006 investigation.

[f] Screen interval from video mapping by Argonne; different from previously reported interval.

[g] Note discrepancy between bottom of hole and screen interval for wells KDHE-2 and NW-3.

[h] Levels falling slowly at the time of the measurement. Measurement is an approximation.

TABLE S3.2 Automated water level measurements at Navarre, April 25, 2006, to November 28, 2006.

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
4/25/2006	20:00	31.845	32.224	32.497	32.909	27.718	25.154	30.063	28.687	28.642			
4/26/2006	0:00	31.841	32.229	32.509	32.913	27.737	25.165	30.075	28.704	28.635			
4/26/2006	4:00	31.826	32.213	32.497	32.901	27.733	25.170	30.068	28.698	28.635			
4/26/2006	8:00	31.853	32.224	32.507	32.913	27.743	25.177	30.073	28.689	28.630			
4/26/2006	12:00	31.861	32.214	32.490	32.903	27.745	25.181	30.075	28.706	28.632			
4/26/2006	16:00	31.812	32.182	32.459	32.864	27.691	25.165	30.035	28.651	28.594	29.904	30.153	30.041
4/26/2006	20:00	31.796	32.190	32.465	32.862	27.672	25.163	30.028	28.636	28.569	29.895	30.146	30.056
4/27/2006	0:00	31.796	32.193	32.473	32.870	27.699	25.172	30.048	28.662	28.582	29.897	30.149	30.019
4/27/2006	4:00	31.781	32.176	32.459	32.856	27.693	25.174	30.044	28.653	28.579	29.878	30.131	29.994
4/27/2006	8:00	31.794	32.174	32.457	32.852	27.695	25.174	30.039	28.656	28.567	29.873	30.129	29.981
4/27/2006	12:00	31.759	32.163	32.448	32.838	27.680	25.168	30.033	28.645	28.567	29.860	30.116	29.976
4/27/2006	16:00	31.736	32.117	32.398	32.795	27.616	25.145	29.984	28.590	28.536	29.819	30.078	29.972
4/27/2006	20:00	31.736	32.119	32.397	32.791	27.605	25.140	29.975	28.572	28.519	29.816	30.073	33.318
4/28/2006	0:00	31.771	32.146	32.421	32.817	27.626	25.145	29.995	28.594	28.539	29.853	30.115	35.342
4/28/2006	4:00	31.779	32.136	32.410	32.809	27.601	25.138	29.980	28.576	28.544	29.853	30.124	36.441
4/28/2006	8:00	31.793	32.154	32.425	32.828	27.609	25.142	30.013	28.590	28.564	29.870	30.147	37.141
4/28/2006	12:00	31.837	32.188	32.455	32.862	27.626	25.153	30.011	28.596	28.594	29.912	30.198	37.663
4/28/2006	16:00	31.841	32.182	32.448	32.858	27.605	25.142	29.986	28.581	28.604	29.914	30.209	38.060
4/28/2006	20:00	31.896	32.182	32.446	32.862	27.584	25.091	30.000	28.559	28.614	29.916	30.217	34.676
4/29/2006	0:00	31.826	32.173	32.433	32.848	27.576	24.976	29.889	28.521	28.622	29.904	30.202	32.847
4/29/2006	4:00	31.787	32.133	32.391	32.807	27.544	24.805	29.820	28.468	28.599	29.860	30.155	31.965
4/29/2006	8:00	31.757	32.108	32.370	32.785	27.528	24.650	29.763	28.440	28.594	29.831	30.120	31.412
4/29/2006	12:00	31.744	32.095	32.360	32.774	27.517	24.516	29.714	28.420	28.582	29.809	30.091	31.039
4/29/2006	16:00	31.709	32.066	32.333	32.746	27.482	24.350	29.657	28.411	28.554	29.777	30.058	30.772
4/29/2006	20:00	31.691	32.038	32.303	32.721	27.452	24.206	29.595	28.385	28.526	29.748	30.023	30.563
4/30/2006	0:00	31.683	32.030	32.294	32.709	27.452	24.148	29.559	28.318	28.521	29.735	30.011	30.415
4/30/2006	4:00	31.664	32.004	32.267	32.684	27.431	24.135	29.519	28.263	28.511	29.706	29.982	30.293
4/30/2006	8:00	31.687	32.013	32.277	32.691	27.457	24.146	29.517	28.195	28.519	29.711	29.983	30.207
4/30/2006	12:00	31.674	32.009	32.271	32.687	27.465	24.158	29.508	28.204	28.514	29.705	29.980	30.145
4/30/2006	16:00	31.666	31.996	32.259	32.672	27.459	24.162	29.497	28.219	28.582	29.691	29.965	30.092
4/30/2006	20:00	31.674	32.007	32.267	32.674	27.463	24.169	29.497	28.219	28.532	29.694	29.965	30.054
5/1/2006	0:00	31.699	32.030	32.288	32.697	27.513	24.193	29.519	28.259	28.549	29.713	29.985	30.016
5/1/2006	4:00	31.679	32.017	32.278	32.691	27.528	24.213	29.522	28.268	28.551	29.708	29.980	29.996
5/1/2006	8:00	31.697	32.030	32.290	32.703	27.554	24.238	29.530	28.283	28.561	29.718	29.989	29.976

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
5/1/2006	12:00	31.718	32.049	32.315	32.725	27.601	24.269	29.559	28.325	28.580	29.740	30.009	29.974
5/1/2006	16:00	31.678	32.019	32.282	32.691	27.575	24.282	29.539	28.292	28.561	29.708	29.982	29.961
5/1/2006	20:00	31.676	32.019	32.279	32.687	27.578	24.301	29.544	28.290	28.559	29.701	29.976	29.943
5/2/2006	0:00	31.689	32.021	32.282	32.687	27.592	24.322	29.553	28.303	28.559	29.705	29.978	29.930
5/2/2006	4:00	31.633	31.973	32.237	32.644	27.552	24.327	29.519	28.262	28.534	29.662	29.936	29.910
5/2/2006	8:00	31.652	31.994	32.256	32.664	27.588	24.354	29.541	28.290	28.546	29.674	29.945	29.902
5/2/2006	12:00	31.613	31.956	32.223	32.629	27.547	24.361	29.513	28.251	28.526	29.644	29.918	29.891
5/2/2006	16:00	31.582	31.920	32.183	32.584	27.494	24.352	29.475	28.198	28.486	29.607	29.885	29.872
5/2/2006	20:00	31.576	31.926	32.181	32.580	27.475	24.356	29.473	28.187	28.469	29.605	29.885	31.996
5/3/2006	0:00	31.559	31.901	32.158	32.562	27.458	24.356	29.453	28.173	28.461	29.593	29.879	34.806
5/3/2006	4:00	31.660	31.973	32.229	32.638	27.550	24.396	29.513	28.255	28.526	29.669	29.956	36.122
5/3/2006	8:00	31.715	32.017	32.273	32.684	27.596	24.426	29.550	28.297	28.582	29.720	30.011	34.488
5/3/2006	12:00	31.707	32.009	32.267	32.682	27.582	24.438	29.546	28.292	28.597	29.721	30.018	32.320
5/3/2006	16:00	31.728	32.004	32.271	32.685	27.596	24.456	29.546	28.279	28.617	29.718	30.018	31.511
5/3/2006	20:00	31.715	32.004	32.271	32.682	27.590	24.474	29.555	28.301	28.622	29.711	30.007	31.057
5/4/2006	0:00	31.703	32.004	32.279	32.689	27.617	24.493	29.573	28.319	28.627	29.708	30.003	30.761
5/4/2006	4:00	31.670	31.971	32.248	32.658	27.592	24.502	29.557	28.295	28.617	29.674	29.967	30.546
5/4/2006	8:00	31.720	32.008	32.292	32.698	27.655	24.537	29.599	28.321	28.647	29.703	29.991	30.408
5/4/2006	12:00	31.720	32.021	32.301	32.705	27.676	24.558	29.639	28.389	28.655	29.710	29.994	30.315
5/4/2006	16:00	31.679	31.971	32.259	32.664	27.640	24.560	29.597	28.370	28.632	29.671	29.960	30.222
5/4/2006	20:00	31.656	31.960	32.244	32.650	27.623	24.569	29.584	28.319	28.609	29.654	29.943	30.156
5/5/2006	0:00	31.664	31.979	32.267	32.666	27.655	24.592	29.610	28.350	28.630	29.669	29.952	30.114
5/5/2006	4:00	31.644	31.958	32.242	32.643	27.640	24.599	29.683	28.363	28.614	29.647	29.930	30.061
5/5/2006	8:00	31.678	31.975	32.258	32.658	27.663	24.617	29.688	28.383	28.614	29.662	29.943	30.032
5/5/2006	12:00	31.648	31.967	32.254	32.652	27.659	24.627	29.624	28.354	28.617	29.654	29.938	30.010
5/5/2006	16:00	31.631	31.933	32.219	32.615	27.619	24.624	29.586	28.325	28.587	29.620	29.907	29.981
5/5/2006	20:00	31.586	31.907	32.189	32.586	27.586	24.622	29.551	28.242	28.561	29.593	29.879	29.950
5/6/2006	0:00	31.600	31.916	32.198	32.596	27.603	24.632	29.566	28.273	28.562	29.598	29.883	29.932
5/6/2006	4:00	31.561	31.892	32.174	32.568	27.575	24.627	29.553	28.257	28.542	29.573	29.859	29.908
5/6/2006	8:00	31.578	31.903	32.189	32.580	27.594	24.638	29.568	28.235	28.544	29.585	29.868	29.897
5/6/2006	12:00	31.611	31.901	32.183	32.576	27.592	24.645	29.575	28.259	28.534	29.578	29.859	29.866
5/6/2006	16:00	31.555	31.871	32.153	32.547	27.554	24.634	29.646	28.264	28.508	29.556	29.839	29.846
5/6/2006	20:00	31.525	31.855	32.138	32.529	27.538	24.613	29.509	28.262	28.493	29.536	29.821	29.833
5/7/2006	0:00	31.543	31.861	32.141	32.531	27.546	24.567	29.515	28.255	28.494	29.539	29.823	29.824

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
5/7/2006	4:00	31.506	31.842	32.122	32.512	27.525	24.507	29.493	28.259	28.476	29.519	29.803	29.808
5/7/2006	8:00	31.506	31.846	32.122	32.513	27.532	24.467	29.491	28.251	28.468	29.522	29.807	29.799
5/7/2006	12:00	31.520	31.848	32.120	32.510	27.523	24.438	29.482	28.275	28.469	29.519	29.803	29.790
5/7/2006	16:00	31.475	31.802	32.077	32.469	27.471	24.409	29.444	28.288	28.433	29.482	29.768	29.773
5/7/2006	20:00	31.475	31.795	32.071	32.464	27.450	24.398	29.431	28.123	28.411	29.478	29.765	29.755
5/8/2006	0:00	31.442	31.761	32.033	32.423	27.412	24.377	29.394	28.103	28.387	29.441	29.730	29.737
5/8/2006	4:00	31.408	31.730	32.002	32.394	27.381	24.370	29.374	28.052	28.365	29.409	29.693	29.711
5/8/2006	8:00	31.447	31.759	32.029	32.425	27.413	24.379	29.389	28.081	28.375	29.438	29.724	29.709
5/8/2006	12:00	31.434	31.761	32.029	32.407	27.392	24.377	29.391	28.079	28.365	29.426	29.715	29.700
5/8/2006	16:00	31.381	31.711	31.983	32.373	27.356	24.366	29.349	28.030	28.347	29.387	29.677	29.684
5/8/2006	20:00	31.364	31.696	31.962	32.353	27.327	24.359	29.329	28.001	28.317	29.367	29.659	29.666
5/9/2006	0:00	31.408	31.730	31.993	32.380	27.356	24.375	29.369	28.173	28.329	29.397	29.683	29.651
5/9/2006	4:00	31.385	31.711	31.976	32.367	27.348	24.373	29.307	28.092	28.314	29.377	29.661	29.631
5/9/2006	8:00	31.373	31.707	31.974	32.365	27.350	24.336	29.314	28.048	28.317	29.375	29.661	29.627
5/9/2006	12:00	31.405	31.728	31.995	32.388	27.375	24.276	29.334	28.061	28.332	29.402	29.686	29.640
5/9/2006	16:00	31.403	31.709	31.974	32.366	27.356	24.208	29.303	28.154	28.314	29.382	29.670	29.638
5/9/2006	20:00	31.389	31.720	31.981	32.373	27.369	24.183	29.296	28.046	28.329	29.389	29.677	29.649
5/10/2006	0:00	31.414	31.736	31.998	32.388	27.396	24.188	29.307	27.973	28.342	29.404	29.690	29.651
5/10/2006	4:00	31.412	31.739	31.998	32.392	27.408	24.195	29.307	27.988	28.357	29.406	29.693	29.653
5/10/2006	8:00	31.451	31.783	32.040	32.431	27.463	24.225	29.345	28.076	28.397	29.446	29.728	29.673
5/10/2006	12:00	31.494	31.806	32.063	32.453	27.490	24.248	29.358	28.108	28.423	29.470	29.755	29.695
5/10/2006	16:00	31.453	31.773	32.023	32.418	27.442	24.243	29.332	28.053	28.397	29.433	29.726	29.693
5/10/2006	20:00	31.444	31.773	32.021	32.418	27.438	24.255	29.332	28.050	28.445	29.433	29.723	29.695
5/11/2006	0:00	31.473	31.794	32.046	32.439	27.465	24.271	29.349	28.077	28.428	29.458	29.746	29.709
5/11/2006	4:00	31.475	31.794	32.046	32.439	27.471	24.285	29.358	28.086	28.438	29.455	29.745	29.713
5/11/2006	8:00	31.471	31.798	32.046	32.441	27.475	24.297	29.360	28.088	28.446	29.458	29.748	29.722
5/11/2006	12:00	31.490	31.806	32.065	32.455	27.490	24.312	29.378	28.103	28.450	29.473	29.763	29.733
5/11/2006	16:00	31.459	31.808	32.040	32.427	27.448	24.312	29.358	28.066	28.443	29.453	29.746	29.733
5/11/2006	20:00	31.455	31.762	32.012	32.398	27.412	24.308	29.363	28.033	28.405	29.399	29.699	29.711
5/12/2006	0:00	31.436	31.751	32.000	32.390	27.410	24.315	29.325	28.028	28.400	29.392	29.692	29.711
5/12/2006	4:00	31.420	31.734	31.985	32.375	27.396	24.319	29.316	28.015	28.390	29.375	29.673	29.702
5/12/2006	8:00	31.424	31.740	31.993	32.378	27.404	24.327	29.325	28.026	28.395	29.379	29.677	29.702
5/12/2006	12:00	31.438	31.785	32.031	32.398	27.389	24.333	29.402	28.070	28.387	29.411	29.714	29.706
5/12/2006	16:00	31.424	31.742	31.991	32.363	27.337	24.326	29.343	28.015	28.357	29.375	29.675	32.393

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
5/12/2006	20:00	31.414	31.723	31.968	32.355	27.316	24.324	29.296	27.971	28.355	29.375	29.675	35.752
5/13/2006	0:00	31.438	31.730	31.972	32.365	27.308	24.326	29.294	27.964	28.372	29.394	29.704	36.627
5/13/2006	4:00	31.453	31.738	31.979	32.378	27.310	24.334	29.292	27.969	28.408	29.416	29.734	37.311
5/13/2006	8:00	31.514	31.783	32.019	32.424	27.346	24.350	29.320	28.006	28.466	29.470	29.792	37.836
5/13/2006	12:00	31.564	31.854	32.088	32.478	27.366	24.370	29.374	28.046	28.508	29.534	29.863	33.757
5/13/2006	16:00	31.576	31.833	32.069	32.474	27.360	24.380	29.354	28.030	28.526	29.514	29.841	32.311
5/13/2006	20:00	31.557	31.835	32.073	32.476	27.364	24.393	29.358	28.035	28.529	29.512	29.828	31.602
5/14/2006	0:00	31.572	31.856	32.094	32.498	27.400	24.416	29.387	28.072	28.551	29.527	29.834	31.135
5/14/2006	4:00	31.570	31.861	32.105	32.504	27.419	24.435	29.407	28.094	28.569	29.527	29.832	30.825
5/14/2006	8:00	31.603	31.890	32.136	32.533	27.465	24.463	29.440	28.138	28.587	29.551	29.850	30.612
5/14/2006	12:00	31.598	31.890	32.138	32.533	27.469	24.481	29.451	28.145	28.597	29.549	29.848	30.464
5/14/2006	16:00	31.611	31.888	32.136	32.531	27.467	24.497	29.454	28.147	28.589	29.544	29.843	30.349
5/14/2006	20:00	31.619	31.905	32.145	32.537	27.473	24.513	29.471	28.152	28.587	29.553	29.850	30.249
5/15/2006	0:00	31.656	31.933	32.176	32.568	27.504	24.536	29.498	28.185	28.609	29.583	29.876	30.200
5/15/2006	4:00	31.621	31.918	32.166	32.559	27.502	24.551	29.502	28.185	28.609	29.568	29.863	30.171
5/15/2006	8:00	31.633	31.937	32.181	32.570	27.517	24.571	29.518	28.202	28.617	29.580	29.874	31.243
5/15/2006	12:00	31.654	31.941	32.187	32.580	27.517	24.583	29.522	28.205	28.632	29.595	29.896	32.483
5/15/2006	16:00	31.650	31.928	32.178	32.572	27.492	24.589	29.511	28.185	28.642	29.588	29.890	31.177
5/15/2006	20:00	31.619	31.930	32.189	32.572	27.465	24.592	29.502	28.165	28.627	29.580	29.883	30.727
5/16/2006	0:00	31.639	31.941	32.200	32.586	27.479	24.604	29.524	28.189	28.637	29.595	29.892	30.486
5/16/2006	4:00	31.619	31.920	32.178	32.566	27.473	24.613	29.518	28.185	28.627	29.573	29.872	30.331
5/16/2006	8:00	31.621	31.920	32.179	32.568	27.479	24.625	29.524	28.194	28.617	29.576	29.868	30.227
5/16/2006	12:00	31.594	31.900	32.157	32.545	27.454	24.626	29.513	28.174	28.604	29.553	29.852	30.154
5/16/2006	16:00	31.576	31.873	32.126	32.512	27.415	24.618	29.489	28.136	28.577	29.524	29.823	30.092
5/16/2006	20:00	31.635	31.913	32.157	32.555	27.391	24.615	29.489	28.121	28.566	29.563	29.865	30.054
5/17/2006	0:00	31.642	31.922	32.163	32.561	27.398	24.622	29.496	28.134	28.582	29.573	29.867	30.056
5/17/2006	4:00	31.603	31.903	32.149	32.539	27.390	24.625	29.498	28.134	28.569	29.551	29.843	30.019
5/17/2006	8:00	31.761	31.960	32.229	32.725	27.404	24.634	29.511	28.150	28.580	29.632	29.901	29.992
5/17/2006	12:00	31.670	31.932	32.193	32.613	27.385	24.634	29.505	28.143	28.599	29.600	29.887	29.974
5/17/2006	16:00	31.613	31.928	32.168	32.563	27.346	24.626	29.513	28.110	28.677	29.573	29.874	29.950
5/17/2006	20:00	31.709	31.979	32.218	32.655	27.312	24.618	29.496	28.090	28.554	29.617	29.903	33.070
5/18/2006	0:00	31.668	31.945	32.193	32.598	27.344	24.636	29.511	28.123	28.574	29.605	29.898	35.302
5/18/2006	4:00	31.683	31.958	32.205	32.610	27.374	24.650	29.533	28.158	28.597	29.629	29.932	36.485
5/18/2006	8:00	31.785	32.006	32.260	32.719	27.389	24.662	29.551	28.180	28.640	29.698	29.998	37.262

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
5/18/2006	12:00	31.880	32.057	32.315	32.790	27.373	24.668	29.553	28.174	28.715	29.781	30.087	37.834
5/18/2006	16:00	31.871	32.061	32.305	32.778	27.339	24.664	29.582	28.169	28.738	29.777	30.096	38.261
5/18/2006	20:00	31.923	32.097	32.397	32.839	27.319	24.663	29.553	28.154	28.783	29.831	30.151	38.983
5/19/2006	0:00	31.886	32.088	32.334	32.776	27.318	24.666	29.549	28.152	28.788	29.816	30.140	34.151
5/19/2006	4:00	31.808	32.034	32.277	32.713	27.283	24.659	29.524	28.123	28.764	29.750	30.073	32.762
5/19/2006	8:00	31.832	32.063	32.290	32.735	27.287	24.662	29.531	28.134	28.746	29.755	30.078	32.413
5/19/2006	12:00	31.964	32.118	32.370	32.868	27.295	24.669	29.553	28.145	28.783	29.833	30.133	32.995
5/19/2006	16:00	31.900	32.097	32.345	32.797	27.281	24.670	29.553	28.134	28.791	29.794	30.100	31.817
5/19/2006	20:00	31.931	32.108	32.366	32.829	27.298	24.680	29.567	28.163	28.804	29.818	30.118	31.336
5/20/2006	0:00	31.900	32.124	32.370	32.809	27.346	24.701	29.604	28.211	28.796	29.811	30.111	31.051
5/20/2006	4:00	31.869	32.112	32.360	32.786	27.375	24.719	29.624	28.242	28.786	29.791	30.087	30.831
5/20/2006	8:00	31.822	32.082	32.334	32.752	27.369	24.728	29.624	28.240	28.768	29.757	30.053	30.663
5/20/2006	12:00	31.841	32.106	32.349	32.770	27.379	24.740	29.633	28.251	28.778	29.767	30.060	30.539
5/20/2006	16:00	31.872	32.137	32.389	32.797	27.379	24.753	29.659	28.260	28.778	29.801	30.095	30.450
5/20/2006	20:00	31.835	32.128	32.361	32.764	27.377	24.761	29.657	28.257	28.746	29.779	30.073	30.377
5/21/2006	0:00	31.830	32.118	32.365	32.762	27.404	24.777	29.677	28.284	28.738	29.769	30.062	30.322
5/21/2006	4:00	31.801	32.078	32.328	32.727	27.387	24.784	29.664	28.271	28.720	29.732	30.025	30.264
5/21/2006	8:00	31.801	32.085	32.378	32.762	27.400	24.795	29.682	28.286	28.713	29.740	30.025	30.227
5/21/2006	12:00	31.841	32.152	32.387	32.766	27.418	24.807	29.706	28.308	28.718	29.786	30.087	30.213
5/21/2006	16:00	31.857	32.143	32.366	32.756	27.396	24.809	29.693	28.288	28.715	29.786	30.085	37.028
5/21/2006	20:00	31.910	32.242	32.427	32.801	27.413	24.823	29.730	28.317	28.804	29.860	30.175	35.962
5/22/2006	0:00	31.976	32.228	32.447	32.844	27.458	24.844	29.752	28.361	28.836	29.892	30.204	32.913
5/22/2006	4:00	31.922	32.200	32.429	32.829	27.458	24.853	29.752	28.363	28.824	29.867	30.178	31.939
5/22/2006	8:00	31.941	32.223	32.458	32.854	27.506	24.878	29.786	28.403	28.852	29.889	30.197	36.224
5/22/2006	12:00	31.978	32.228	32.464	32.862	27.498	24.888	29.790	28.407	28.857	29.897	30.206	32.960
5/22/2006	16:00	31.963	32.234	32.458	32.848	27.462	24.883	29.770	28.366	28.864	29.889	30.197	31.914
5/22/2006	20:00	32.044	32.295	32.504	32.929	27.456	24.892	29.779	28.379	28.864	29.953	30.257	31.400
5/23/2006	0:00	32.017	32.264	32.492	32.897	27.477	24.906	29.799	28.403	28.869	29.929	30.229	31.093
5/23/2006	4:00	31.974	32.242	32.473	32.870	27.475	24.915	29.799	28.403	28.849	29.892	30.191	30.871
5/23/2006	8:00	31.962	32.230	32.475	32.872	27.496	24.929	29.814	28.425	28.846	29.889	30.189	30.842
5/23/2006	12:00	32.075	32.264	32.523	32.985	27.473	24.932	29.803	28.407	28.859	29.951	30.233	32.463
5/23/2006	16:00	31.986	32.219	32.466	32.882	27.439	24.925	29.779	28.377	28.846	29.902	30.200	38.626
5/23/2006	20:00	32.066	32.289	32.523	32.946	27.425	24.927	29.799	28.377	28.884	29.982	30.291	41.007
5/24/2006	0:00	32.073	32.297	32.534	32.952	27.465	24.941	29.821	28.416	28.937	30.002	30.328	42.553

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
5/24/2006	4:00	32.079	32.301	32.532	32.954	27.462	24.948	29.828	28.418	28.980	30.022	30.368	43.649
5/24/2006	8:00	32.181	32.413	32.607	33.025	27.500	24.964	29.865	28.458	29.046	30.125	30.492	43.948
5/24/2006	12:00	32.585	32.529	32.732	33.246	27.515	24.976	29.894	28.485	29.129	30.318	30.678	41.765
5/24/2006	16:00	32.303	32.500	32.694	33.136	27.491	24.980	29.899	28.474	29.265	30.230	30.598	36.328
5/24/2006	20:00	32.272	32.494	32.702	33.135	27.475	24.983	29.899	28.469	29.202	30.215	30.576	39.466
5/25/2006	0:00	32.274	32.485	32.700	33.132	27.498	24.996	29.916	28.491	29.205	30.210	30.569	36.828
5/25/2006	4:00	32.224	32.453	32.677	33.107	27.496	25.003	29.917	28.496	29.195	30.174	30.523	36.018
5/25/2006	8:00	32.272	32.475	32.704	33.146	27.521	25.017	29.934	28.518	29.195	30.191	30.536	34.027
5/25/2006	12:00	32.284	32.496	32.717	33.148	27.527	25.026	29.945	28.529	29.195	30.203	30.539	35.553
5/25/2006	16:00	32.227	32.439	32.671	33.125	27.477	25.017	29.914	28.476	29.168	30.144	30.476	33.777
5/25/2006	20:00	32.374	32.568	32.864	33.317	27.467	25.022	29.952	28.500	29.183	30.282	30.590	32.627
5/26/2006	0:00	32.272	32.519	32.767	33.195	27.498	25.035	29.963	28.529	29.175	30.215	30.528	32.052
5/26/2006	4:00	32.185	32.439	32.689	33.109	27.475	25.033	29.941	28.507	29.115	30.127	30.441	31.675
5/26/2006	8:00	32.179	32.434	32.692	33.099	27.512	25.052	29.963	28.537	29.099	30.110	30.414	31.405
5/26/2006	12:00	32.260	32.481	32.772	33.227	27.506	25.050	29.976	28.555	29.098	30.186	30.477	31.214
5/26/2006	16:00	32.113	32.390	32.650	33.062	27.443	25.040	29.918	28.482	29.037	30.071	30.374	31.039
5/26/2006	20:00	32.079	32.378	32.641	33.033	27.431	25.040	29.921	28.471	28.989	30.039	30.341	31.697
5/27/2006	0:00	32.097	32.407	32.662	33.052	27.481	25.063	29.967	28.524	29.011	30.058	30.355	31.106
5/27/2006	4:00	32.052	32.361	32.620	33.009	27.473	25.061	29.954	28.520	28.955	30.022	30.322	30.898
5/27/2006	8:00	32.136	32.401	32.656	33.103	27.460	25.063	29.943	28.509	28.935	30.056	30.346	34.067
5/27/2006	12:00	32.087	32.378	32.641	33.036	27.473	25.073	29.954	28.526	28.980	30.051	30.353	33.024
5/27/2006	16:00	32.097	32.435	32.643	33.027	27.454	25.072	29.952	28.513	28.940	30.071	30.383	31.788
5/27/2006	20:00	32.159	32.449	32.689	33.099	27.466	25.080	29.972	28.529	28.952	30.115	30.415	31.312
5/28/2006	0:00	32.148	32.460	32.694	33.086	27.510	25.095	30.005	28.57	28.962	30.115	30.418	31.057
5/28/2006	4:00	32.134	32.443	32.681	33.066	27.517	25.109	30.011	28.584	28.952	30.093	30.394	30.887
5/28/2006	8:00	32.249	32.494	32.761	33.203	27.546	25.125	30.036	28.612	28.962	30.152	30.439	30.776
5/28/2006	12:00	32.265	32.536	32.786	33.207	27.563	25.132	30.056	28.632	29.020	30.206	30.497	30.716
5/28/2006	16:00	32.212	32.536	32.767	33.154	27.562	25.142	30.073	28.637	29.007	30.181	30.483	34.027
5/28/2006	20:00	32.260	32.578	32.799	33.176	27.575	25.147	30.102	28.656	29.027	30.213	30.525	39.459
5/29/2006	0:00	32.331	32.633	32.852	33.238	27.606	25.165	30.135	28.694	29.078	30.294	30.618	34.031
5/29/2006	4:00	32.298	32.603	32.833	33.221	27.619	25.174	30.140	28.705	29.095	30.272	30.593	32.623
5/29/2006	8:00	32.333	32.637	32.864	33.254	27.667	25.197	30.175	28.749	29.123	30.296	30.616	38.804
5/29/2006	12:00	32.399	32.715	32.942	33.327	27.696	25.214	30.222	28.786	29.179	30.382	30.717	35.938
5/29/2006	16:00	32.469	32.749	32.982	33.383	27.688	25.220	30.237	28.786	29.196	30.421	30.755	33.591

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
5/29/2006	20:00	32.454	32.795	33.003	33.389	27.677	25.227	30.259	28.791	29.206	30.443	30.771	32.612
5/30/2006	0:00	32.475	32.796	33.030	33.413	27.769	25.271	30.332	28.892	29.251	30.451	30.764	32.049
5/30/2006	4:00	32.382	32.705	32.950	33.336	27.728	25.266	30.264	28.835	29.196	30.367	30.678	31.653
5/30/2006	8:00	32.399	32.700	32.953	33.332	27.769	25.271	30.279	28.859	29.211	30.355	30.660	31.403
5/30/2006	12:00	32.382	32.688	32.948	33.327	27.790	25.267	30.275	28.868	29.214	30.343	30.645	31.230
5/30/2006	16:00	32.349	32.673	32.934	33.311	27.803	25.255	30.277	28.875	29.216	30.326	30.629	31.097
5/30/2006	20:00	32.290	32.622	32.879	33.254	27.751	25.218	30.233	28.811	29.171	30.269	30.569	30.971
5/31/2006	0:00	32.315	32.643	32.906	33.280	27.807	25.236	30.266	28.859	29.183	30.289	30.582	30.896
5/31/2006	4:00	32.286	32.624	32.889	33.260	27.811	25.236	30.261	28.861	29.176	30.269	30.562	30.827
5/31/2006	8:00	32.280	32.620	32.889	33.258	27.830	25.246	30.264	28.872	29.176	30.262	30.554	30.778
5/31/2006	12:00	32.286	32.625	32.898	33.266	27.849	25.259	30.277	28.89	29.183	30.269	30.559	30.743
5/31/2006	16:00	32.245	32.584	32.852	33.221	27.801	25.239	30.246	28.842	29.140	30.228	30.521	30.714
5/31/2006	20:00	32.241	32.595	32.868	33.221	27.803	25.241	30.253	28.842	29.145	30.228	30.518	30.674
6/1/2006	0:00	32.275	32.603	32.873	33.240	27.832	25.264	30.341	28.868	29.138	30.247	30.534	30.634
6/1/2006	4:00	32.228	32.572	32.845	33.209	27.824	25.264	30.250	28.855	29.125	30.215	30.505	30.614
6/1/2006	8:00	32.261	32.578	32.854	33.217	27.845	25.278	30.261	28.879	29.135	30.220	30.509	30.597
6/1/2006	12:00	32.237	32.586	32.864	33.225	27.867	25.288	30.268	28.881	29.142	30.228	30.514	30.603
6/1/2006	16:00	32.206	32.553	32.828	33.188	27.830	25.269	30.237	28.842	29.117	30.193	30.485	30.579
6/1/2006	20:00	32.222	32.578	32.847	33.193	27.830	25.269	30.248	28.894	29.107	30.198	30.485	30.557
6/2/2006	0:00	32.212	32.568	32.849	33.203	27.859	25.287	30.255	28.846	29.107	30.208	30.494	30.546
6/2/2006	4:00	32.198	32.555	32.835	33.193	27.859	25.287	30.250	28.809	29.110	30.196	30.483	30.535
6/2/2006	8:00	32.202	32.559	32.841	33.197	27.878	25.296	30.257	28.756	29.112	30.198	30.485	30.530
6/2/2006	12:00	32.200	32.551	32.833	33.189	27.876	25.297	30.250	28.784	29.115	30.191	30.480	30.535
6/2/2006	16:00	32.177	32.555	32.824	33.170	27.842	25.278	30.244	28.837	29.120	30.186	30.483	30.521
6/2/2006	20:00	32.173	32.555	32.818	33.164	27.820	25.266	30.233	28.817	29.079	30.184	30.478	30.506
6/3/2006	0:00	32.182	32.551	32.824	33.172	27.838	25.276	30.237	28.833	29.079	30.184	30.474	30.495
6/3/2006	4:00	32.148	32.515	32.790	33.142	27.815	25.264	30.211	28.806	29.052	30.152	30.443	30.481
6/3/2006	8:00	32.146	32.511	32.788	33.139	27.820	25.267	30.211	28.811	29.054	30.147	30.436	30.490
6/3/2006	12:00	32.165	32.506	32.793	33.139	27.809	25.262	30.202	28.8	29.049	30.147	30.438	33.604
6/3/2006	16:00	32.138	32.485	32.767	33.119	27.771	25.237	30.169	28.76	29.031	30.137	30.432	36.002
6/3/2006	20:00	32.159	32.502	32.772	33.129	27.749	25.223	30.160	28.74	29.047	30.159	30.465	37.242
6/4/2006	0:00	32.165	32.491	32.757	33.127	27.742	25.218	30.146	28.734	29.067	30.166	30.481	38.051
6/4/2006	4:00	32.173	32.481	32.744	33.119	27.715	25.202	30.122	28.705	29.074	30.169	30.494	38.626
6/4/2006	8:00	32.249	32.549	32.831	33.205	27.774	25.230	30.171	28.762	29.140	30.245	30.571	39.083

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
6/4/2006	12:00	32.290	32.576	32.816	33.197	27.732	25.213	30.155	28.731	29.153	30.267	30.607	35.006
6/4/2006	16:00	32.253	32.580	32.820	33.195	27.711	25.199	30.155	28.716	29.173	30.262	30.596	33.489
6/4/2006	20:00	32.321	32.624	32.856	33.236	27.723	25.204	30.160	28.727	29.175	30.289	30.622	33.476
6/5/2006	0:00	32.323	32.633	32.883	33.258	27.759	25.227	30.188	28.764	29.190	30.306	30.622	32.280
6/5/2006	4:00	32.282	32.595	32.854	33.233	27.757	25.229	30.177	28.762	29.183	30.267	30.578	31.826
6/5/2006	8:00	32.275	32.606	32.871	33.240	27.759	25.230	30.182	28.767	29.175	30.264	30.569	31.536
6/5/2006	12:00	32.319	32.624	32.889	33.266	27.801	25.259	30.213	28.809	29.190	30.279	30.578	31.327
6/5/2006	16:00	32.218	32.540	32.810	33.184	27.734	25.229	30.166	28.742	29.135	30.203	30.505	31.144
6/5/2006	20:00	32.234	32.559	32.847	33.215	27.728	25.225	30.166	28.738	29.160	30.213	30.509	32.156
6/6/2006	0:00	32.310	32.639	32.904	33.268	27.822	25.280	30.239	28.828	29.211	30.282	30.574	31.245
6/6/2006	4:00	32.234	32.570	32.837	33.203	27.774	25.257	30.200	28.784	29.158	30.223	30.516	31.026
6/6/2006	8:00	32.314	32.637	32.896	33.280	27.809	25.280	30.228	28.822	29.172	30.282	30.580	30.918
6/6/2006	12:00	32.378	32.675	32.953	33.346	27.834	25.297	30.257	28.846	29.215	30.335	30.616	30.851
6/6/2006	16:00	32.360	32.722	32.932	33.297	27.819	25.296	30.244	28.828	29.185	30.340	30.655	30.796
6/6/2006	20:00	32.349	32.683	32.990	33.338	27.832	25.304	30.266	28.85	29.190	30.328	30.618	33.996
6/7/2006	0:00	32.376	32.707	32.991	33.356	27.878	25.329	30.297	28.899	29.238	30.362	30.655	31.910
6/7/2006	4:00	32.356	32.687	32.965	33.330	27.897	25.341	30.304	28.908	29.241	30.343	30.636	31.369
6/7/2006	8:00	32.421	32.747	33.005	33.368	27.932	25.364	30.326	28.941	29.258	30.394	30.697	31.148
6/7/2006	12:00	32.655	32.853	33.132	33.605	27.939	25.375	30.359	28.952	29.316	30.527	30.800	31.037
6/7/2006	16:00	32.729	32.910	33.197	33.712	27.914	25.371	30.370	28.945	29.369	30.605	30.872	30.958
6/7/2006	20:00	32.620	32.893	33.224	33.622	27.909	25.371	30.374	28.947	29.384	30.571	30.842	30.911
6/8/2006	0:00	32.571	32.865	33.167	33.554	27.957	25.400	30.396	28.994	29.384	30.539	30.819	30.898
6/8/2006	4:00	32.475	32.791	33.081	33.460	27.932	25.393	30.370	28.965	29.341	30.458	30.742	30.842
6/8/2006	8:00	32.481	32.804	33.098	33.471	27.985	25.422	30.405	29.011	29.356	30.465	30.751	33.159
6/8/2006	12:00	32.462	32.789	33.073	33.440	27.957	25.417	30.401	28.994	29.341	30.448	30.738	31.476
6/8/2006	16:00	32.411	32.734	33.014	33.383	27.916	25.400	30.357	28.95	29.303	30.397	30.689	34.166
6/8/2006	20:00	32.454	32.766	33.073	33.436	27.901	25.393	30.352	28.936	29.306	30.429	30.726	39.933
6/9/2006	0:00	32.544	32.834	33.100	33.477	27.926	25.410	30.381	28.969	29.364	30.517	30.831	38.897
6/9/2006	4:00	32.505	32.795	33.060	33.442	27.901	25.400	30.361	28.945	29.382	30.492	30.819	39.249
6/9/2006	8:00	32.532	32.812	33.075	33.464	27.913	25.410	30.366	28.958	29.422	30.517	30.850	40.542
6/9/2006	12:00	32.596	32.882	33.165	33.507	27.891	25.396	30.658	29.108	29.455	30.568	30.901	40.883
6/9/2006	16:00	32.606	32.931	33.218	33.558	27.857	25.378	30.536	29.108	29.462	30.637	30.981	41.519
6/9/2006	20:00	32.649	32.998	33.264	33.607	27.830	25.370	30.494	29.02	29.470	30.684	31.032	37.905
6/10/2006	0:00	32.678	32.977	33.249	33.614	27.845	25.385	30.512	29.068	29.495	30.691	31.034	35.072

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
6/10/2006	4:00	32.608	32.903	33.169	33.548	27.826	25.385	30.441	29.003	29.483	30.608	30.946	33.797
6/10/2006	8:00	32.637	33.017	33.291	33.593	27.838	25.394	30.797	29.21	29.467	30.647	30.974	34.377
6/10/2006	12:00	32.725	33.177	33.546	33.769	27.845	25.412	31.105	29.496	29.478	30.799	31.107	37.238
6/10/2006	16:00	32.703	33.089	33.374	33.693	27.834	25.412	30.671	29.203	29.475	30.757	31.090	38.812
6/10/2006	20:00	32.703	33.097	33.323	33.659	27.813	25.410	30.596	29.104	29.472	30.752	31.099	36.155
6/11/2006	0:00	32.811	33.123	33.348	33.700	27.853	25.440	30.593	29.112	29.505	30.784	31.125	34.018
6/11/2006	4:00	32.744	33.083	33.331	33.697	27.909	25.475	30.593	29.143	29.523	30.760	31.090	33.090
6/11/2006	8:00	32.762	33.112	33.354	33.712	27.943	25.504	30.598	29.148	29.538	30.760	31.078	32.537
6/11/2006	12:00	32.834	33.222	33.411	33.763	27.982	25.535	30.649	29.185	29.566	30.843	31.169	35.703
6/11/2006	16:00	32.871	33.257	33.445	33.794	27.989	25.548	30.682	29.198	29.578	30.887	31.222	37.406
6/11/2006	20:00	32.974	33.382	33.603	33.938	28.028	25.576	30.742	29.253	29.621	31.007	31.335	34.671
6/12/2006	0:00	32.982	33.351	33.569	33.924	28.070	25.608	30.758	29.286	29.664	31.000	31.329	33.825
6/12/2006	4:00	32.953	33.287	33.525	33.892	28.095	25.632	30.746	29.295	29.687	30.951	31.267	33.296
6/12/2006	8:00	32.998	33.302	33.552	33.947	28.158	25.671	30.768	29.339	29.725	30.961	31.267	32.960
6/12/2006	12:00	32.930	33.247	33.516	33.886	28.158	25.682	30.766	29.333	29.725	30.914	31.216	32.738
6/12/2006	16:00	32.898	33.232	33.538	33.888	28.150	25.687	30.759	29.324	29.717	30.890	31.189	32.530
6/12/2006	20:00	32.877	33.219	33.510	33.867	28.141	25.683	30.744	29.315	29.707	30.882	31.180	32.366
6/13/2006	0:00	32.898	33.211	33.493	33.859	28.189	25.712	30.768	29.35	29.725	30.877	31.172	32.251
6/13/2006	4:00	32.840	33.161	33.447	33.814	28.175	25.710	30.748	29.331	29.700	30.828	31.127	32.162
6/13/2006	8:00	32.842	33.162	33.455	33.820	28.208	25.729	30.764	29.353	29.715	30.828	31.119	32.089
6/13/2006	12:00	32.865	33.148	33.435	33.811	28.195	25.726	30.751	29.337	29.700	30.818	31.116	31.711
6/13/2006	16:00	32.803	33.112	33.392	33.761	28.148	25.698	30.717	29.291	29.677	30.777	31.070	32.975
6/13/2006	20:00	32.871	33.194	33.466	33.828	28.129	25.680	30.709	29.269	29.672	30.843	31.136	39.162
6/14/2006	0:00	32.900	33.202	33.460	33.838	28.158	25.699	30.728	29.302	29.715	30.882	31.192	38.863
6/14/2006	4:00	32.871	33.158	33.422	33.803	28.131	25.689	30.709	29.275	29.720	30.855	31.176	39.379
6/14/2006	8:00	32.937	33.245	33.479	33.861	28.139	25.694	30.724	29.289	29.750	30.926	31.258	37.369
6/14/2006	12:00	33.058	33.562	33.752	34.026	28.120	25.687	30.888	29.351	29.778	31.144	31.457	34.600
6/14/2006	16:00	33.051	33.555	33.775	34.042	28.078	25.657	30.883	29.349	29.750	31.169	31.486	33.493
6/14/2006	20:00	32.969	33.382	33.632	33.953	28.060	25.657	30.775	29.284	29.730	31.002	31.329	32.836
6/15/2006	0:00	33.072	33.555	33.785	34.069	28.087	25.678	30.910	29.377	29.722	31.174	31.488	32.417
6/15/2006	4:00	32.935	33.291	33.557	33.910	28.060	25.664	30.782	29.302	29.689	30.958	31.267	32.109
6/15/2006	8:00	32.941	33.245	33.529	33.896	28.087	25.694	30.773	29.315	29.692	30.919	31.214	31.892
6/15/2006	12:00	32.883	33.194	33.477	33.845	28.085	25.699	30.748	29.295	29.679	30.872	31.167	31.788
6/15/2006	16:00	32.850	33.152	33.434	33.795	28.062	25.682	30.735	29.282	29.649	30.818	31.116	31.615

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
6/15/2006	20:00	32.846	33.158	33.468	33.836	28.054	25.671	30.704	29.256	29.642	30.821	31.107	34.815
6/16/2006	0:00	32.852	33.160	33.451	33.818	28.085	25.694	30.720	29.278	29.702	30.831	31.121	33.119
6/16/2006	4:00	32.854	33.308	33.544	33.842	28.114	25.715	30.808	29.32	29.689	30.880	31.156	32.264
6/16/2006	8:00	32.994	33.437	33.670	33.969	28.120	25.726	30.879	29.384	30.439	31.056	31.358	32.844
6/16/2006	12:00	32.896	33.249	33.517	33.865	28.102	25.724	30.782	29.333	29.720	30.909	31.205	31.925
6/16/2006	16:00	32.875	33.156	33.439	33.795	28.074	25.705	30.728	29.284	29.654	30.826	31.110	31.664
6/16/2006	20:00	32.797	33.131	33.416	33.781	28.070	25.698	30.711	29.267	29.626	30.794	31.076	31.505
6/17/2006	0:00	32.820	33.148	33.434	33.793	28.141	25.744	30.773	29.337	29.644	30.804	31.079	31.389
6/17/2006	4:00	32.725	33.063	33.350	33.707	28.078	25.708	30.709	29.271	29.581	30.723	31.001	31.301
6/17/2006	8:00	32.744	33.083	33.371	33.722	28.133	25.744	30.742	29.311	29.601	30.735	31.008	31.250
6/17/2006	12:00	32.735	33.069	33.357	33.711	28.143	25.752	30.746	29.322	29.596	30.720	30.994	31.208
6/17/2006	16:00	32.723	33.078	33.340	33.687	28.089	25.719	30.711	29.271	29.553	30.723	31.006	31.170
6/17/2006	20:00	32.705	33.045	33.321	33.669	28.091	25.717	30.709	29.26	29.536	30.689	30.966	31.137
6/18/2006	0:00	32.719	33.063	33.346	33.695	28.150	25.761	30.744	29.313	29.566	30.708	30.979	31.117
6/18/2006	4:00	32.715	33.059	33.348	33.695	28.175	25.775	30.759	29.335	29.573	30.706	30.977	31.106
6/18/2006	8:00	32.746	33.086	33.378	33.724	28.225	25.805	30.793	29.379	29.601	30.730	30.999	31.104
6/18/2006	12:00	32.758	33.107	33.392	33.736	28.250	25.824	30.811	29.401	29.636	30.750	31.019	31.102
6/18/2006	16:00	32.752	33.093	33.376	33.720	28.223	25.814	30.797	29.375	29.636	30.742	31.016	37.404
6/18/2006	20:00	32.793	33.114	33.422	33.769	28.221	25.814	30.795	29.372	29.664	30.782	31.065	41.195
6/19/2006	0:00	32.848	33.143	33.424	33.789	28.235	25.824	30.804	29.383	29.717	30.838	31.136	43.118
6/19/2006	4:00	32.898	33.179	33.449	33.824	28.250	25.833	30.819	29.399	29.780	30.890	31.205	42.834
6/19/2006	8:00	33.008	33.278	33.592	33.957	28.289	25.856	30.859	29.443	29.858	30.992	31.313	40.028
6/19/2006	12:00	33.058	33.283	33.578	33.959	28.279	25.854	30.855	29.45	29.919	31.015	31.336	36.879
6/19/2006	16:00	33.000	33.260	33.538	33.926	28.262	25.844	30.848	29.43	29.932	30.985	31.302	37.628
6/19/2006	20:00	33.013	33.274	33.580	33.957	28.246	25.839	30.841	29.414	29.932	30.992	31.305	36.365
6/20/2006	0:00	33.031	33.297	33.565	33.952	28.254	25.842	30.850	29.421	29.936	31.005	31.313	34.240
6/20/2006	4:00	33.002	33.287	33.561	33.942	28.283	25.863	30.871	29.445	29.944	30.980	31.282	33.391
6/20/2006	8:00	32.992	33.340	33.624	33.969	28.275	25.861	30.912	29.465	29.919	31.002	31.291	32.851
6/20/2006	12:00	32.949	33.241	33.533	33.903	28.246	25.847	30.851	29.43	29.891	30.931	31.218	32.486
6/20/2006	16:00	32.881	33.179	33.466	33.834	28.196	25.814	30.806	29.379	29.841	30.865	31.150	32.207
6/20/2006	20:00	32.883	33.232	33.525	33.867	28.193	25.814	30.828	29.377	29.815	30.887	31.180	31.996
6/21/2006	0:00	32.918	33.264	33.538	33.883	28.235	25.839	30.868	29.421	29.818	30.916	31.202	31.843
6/21/2006	4:00	32.943	33.306	33.567	33.910	28.279	25.874	30.917	29.467	29.830	30.948	31.233	31.733
6/21/2006	8:00	32.955	33.331	33.588	33.930	28.300	25.890	30.941	29.491	29.828	30.968	31.253	31.651

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
6/21/2006	12:00	32.982	33.378	33.632	33.959	28.335	25.913	31.030	29.547	29.853	31.000	31.278	31.589
6/21/2006	16:00	32.965	33.363	33.611	33.942	28.312	25.911	30.966	29.516	29.833	30.985	31.271	31.529
6/21/2006	20:00	32.969	33.392	33.641	33.959	28.275	25.895	30.968	29.491	29.800	31.004	31.293	31.474
6/22/2006	0:00	33.017	33.384	33.643	33.991	28.363	25.960	31.030	29.564	29.818	31.016	31.284	31.376
6/22/2006	4:00	32.965	33.323	33.586	33.934	28.340	25.955	31.036	29.527	29.797	30.966	31.234	31.336
6/22/2006	8:00	32.996	33.331	33.599	33.953	28.373	25.967	30.934	29.502	29.828	30.973	31.236	31.330
6/22/2006	12:00	32.969	33.302	33.576	33.932	28.336	25.937	30.846	29.476	29.861	30.951	31.220	31.334
6/22/2006	16:00	32.928	33.259	33.536	33.891	28.279	25.881	30.766	29.408	29.825	30.909	31.178	31.319
6/22/2006	20:00	32.908	33.224	33.502	33.865	28.250	25.819	30.697	29.359	29.815	30.880	31.149	31.303
6/23/2006	0:00	32.914	33.224	33.502	33.867	28.265	25.780	30.667	29.357	29.828	30.880	31.147	31.301
6/23/2006	4:00	32.885	33.186	33.466	33.836	28.242	25.726	30.616	29.317	29.823	30.848	31.114	31.292
6/23/2006	8:00	32.879	33.179	33.460	33.832	28.258	25.690	30.593	29.309	29.830	30.843	31.107	31.290
6/23/2006	12:00	32.859	33.162	33.445	33.816	28.254	25.657	30.563	29.284	29.825	30.828	31.090	31.285
6/23/2006	16:00	32.824	33.116	33.397	33.771	28.218	25.611	30.510	29.229	29.805	30.784	31.050	31.290
6/23/2006	20:00	32.795	33.089	33.361	33.736	28.193	25.572	30.474	29.19	30.062	30.752	31.021	31.350
6/24/2006	0:00	32.795	33.089	33.365	33.740	28.208	25.558	30.468	29.187	29.828	30.757	31.023	31.252
6/24/2006	4:00	32.778	33.069	33.348	33.722	28.218	25.548	30.456	29.179	29.803	30.738	30.997	31.234
6/24/2006	8:00	32.764	33.048	33.327	33.703	28.208	25.534	30.441	29.155	29.790	30.713	30.979	31.930
6/24/2006	12:00	32.791	33.046	33.323	33.701	28.221	25.523	30.434	29.155	29.787	30.720	30.986	31.434
6/24/2006	16:00	32.731	33.012	33.289	33.664	28.187	25.497	30.403	29.113	29.757	30.686	30.955	35.026
6/24/2006	20:00	32.770	33.021	33.281	33.666	28.179	25.488	30.388	29.093	29.767	30.703	30.983	37.114
6/25/2006	0:00	32.844	33.091	33.342	33.732	28.212	25.507	30.392	29.073	29.815	30.779	31.063	34.981
6/25/2006	4:00	32.861	33.255	33.459	33.779	28.218	25.502	30.494	29.139	29.840	30.850	31.121	33.289
6/25/2006	8:00	32.920	33.203	33.445	33.818	28.237	25.514	30.477	29.159	29.856	30.880	31.167	32.603
6/25/2006	12:00	32.889	33.139	33.397	33.781	28.252	25.519	30.459	29.152	29.871	30.823	31.109	32.220
6/25/2006	16:00	32.819	33.089	33.354	33.734	28.227	25.504	30.428	29.119	29.868	30.772	31.052	31.987
6/25/2006	20:00	32.805	33.080	33.354	33.732	28.216	25.498	30.421	29.106	29.853	30.760	31.034	31.786
6/26/2006	0:00	32.805	33.074	33.344	33.726	28.244	25.516	30.430	29.122	29.866	30.755	31.027	31.662
6/26/2006	4:00	32.776	33.044	33.314	33.697	28.235	25.512	30.417	29.106	29.853	30.723	30.992	31.562
6/26/2006	8:00	32.756	33.032	33.302	33.683	28.235	25.513	30.417	29.101	29.835	30.708	30.975	31.485
6/26/2006	12:00	32.752	33.031	33.304	33.681	28.221	25.514	30.468	29.117	29.825	30.706	30.975	31.427
6/26/2006	16:00	32.707	32.981	33.256	33.636	28.187	25.495	30.401	29.064	29.795	30.659	30.928	31.371
6/26/2006	20:00	32.778	33.249	33.495	33.765	28.156	25.479	30.488	29.073	29.767	30.803	31.061	31.319
6/27/2006	0:00	32.902	33.433	33.640	33.887	28.185	25.498	30.609	29.163	29.775	30.973	31.231	31.294

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
6/27/2006	4:00	32.883	33.274	33.533	33.856	28.181	25.502	30.550	29.156	29.775	30.916	31.191	31.274
6/27/2006	8:00	32.871	33.202	33.460	33.816	28.196	25.518	30.503	29.141	29.787	30.855	31.130	33.449
6/27/2006	12:00	32.836	33.135	33.405	33.773	28.208	25.530	30.492	29.137	29.797	30.806	31.076	31.870
6/27/2006	16:00	32.801	33.070	33.338	33.713	28.173	25.511	30.454	29.09	29.780	30.744	31.016	32.100
6/27/2006	20:00	32.838	33.335	33.562	33.824	28.150	25.504	30.574	29.119	29.762	30.885	31.141	32.439
6/28/2006	0:00	32.941	33.316	33.556	33.887	28.187	25.532	30.585	29.172	29.785	30.960	31.242	36.264
6/28/2006	4:00	32.883	33.179	33.434	33.805	28.177	25.535	30.516	29.13	29.812	30.862	31.145	37.842
6/28/2006	8:00	32.912	33.179	33.449	33.832	28.198	25.553	30.519	29.143	29.858	30.879	31.167	38.779
6/28/2006	12:00	32.949	33.167	33.426	33.824	28.195	25.555	30.508	29.132	29.898	30.885	31.181	39.439
6/28/2006	16:00	32.976	33.188	33.424	33.834	28.162	25.541	30.496	29.102	29.916	30.911	31.218	39.929
6/28/2006	20:00	33.033	33.297	33.502	33.895	28.145	25.537	30.519	29.108	29.946	30.997	31.313	36.802
6/29/2006	0:00	33.017	33.243	33.474	33.881	28.172	25.560	30.519	29.117	29.982	30.961	31.264	34.647
6/29/2006	4:00	32.970	33.205	33.447	33.854	28.176	25.567	30.516	29.121	29.987	30.916	31.216	33.646
6/29/2006	8:00	32.953	33.196	33.451	33.852	28.203	25.586	30.532	29.145	29.989	30.901	31.189	33.035
6/29/2006	12:00	32.928	33.173	33.424	33.824	28.193	25.586	30.521	29.139	29.981	30.872	31.160	32.627
6/29/2006	16:00	32.900	33.156	33.397	33.791	28.170	25.572	30.505	29.115	29.954	30.848	31.136	32.333
6/29/2006	20:00	32.867	33.120	33.378	33.769	28.150	25.567	30.494	29.099	29.929	30.811	31.090	34.939
6/30/2006	0:00	32.926	33.154	33.401	33.795	28.178	25.594	30.521	29.126	29.931	30.843	31.120	33.026
6/30/2006	4:00	32.875	33.205	33.421	33.781	28.172	25.593	30.543	29.123	29.919	30.828	31.098	32.417
6/30/2006	8:00	33.021	33.395	33.596	33.928	28.185	25.610	30.645	29.203	29.931	31.032	31.322	36.181
6/30/2006	12:00	33.006	33.255	33.489	33.875	28.178	25.610	30.583	29.17	29.959	30.943	31.231	38.137
6/30/2006	16:00	32.959	33.196	33.439	33.836	28.145	25.594	30.545	29.132	30.057	30.907	31.202	40.909
6/30/2006	20:00	33.041	33.196	33.466	33.863	28.133	25.590	30.534	29.117	30.027	30.918	31.218	38.686
7/1/2006	0:00	33.080	33.264	33.501	33.906	28.160	25.617	30.576	29.152	30.059	30.980	31.287	35.369
7/1/2006	4:00	33.027	33.291	33.516	33.910	28.173	25.631	30.609	29.174	30.062	30.992	31.298	34.082
7/1/2006	8:00	33.088	33.337	33.569	33.955	28.193	25.650	30.638	29.203	30.070	31.027	31.326	33.344
7/1/2006	12:00	33.045	33.337	33.558	33.942	28.189	25.655	30.656	29.212	30.057	31.017	31.313	32.879
7/1/2006	16:00	33.031	33.321	33.548	33.936	28.166	25.650	30.650	29.194	30.034	30.997	31.291	35.827
7/1/2006	20:00	33.019	33.299	33.569	33.942	28.154	25.650	30.638	29.187	30.027	30.980	31.266	33.686
7/2/2006	0:00	33.169	33.669	33.868	34.139	28.195	25.680	30.838	29.306	30.052	31.235	31.501	32.897
7/2/2006	4:00	33.224	33.762	33.943	34.196	28.200	25.698	30.906	29.357	30.044	31.311	31.585	32.503
7/2/2006	8:00	33.207	33.546	33.790	34.141	28.233	25.724	30.795	29.339	30.054	31.201	31.490	32.257
7/2/2006	12:00	33.224	33.544	33.733	34.106	28.221	25.726	30.766	29.32	30.133	31.193	31.490	32.087
7/2/2006	16:00	33.234	33.536	33.706	34.100	28.200	25.717	30.747	29.295	30.062	31.179	31.479	31.965

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
7/2/2006	20:00	33.144	33.428	33.649	34.036	28.193	25.721	30.729	29.278	30.029	31.091	31.371	31.865
7/3/2006	0:00	33.144	33.426	33.681	34.059	28.233	25.750	30.762	29.324	30.037	31.100	31.368	31.808
7/3/2006	4:00	33.090	33.365	33.623	34.004	28.237	25.759	30.753	29.317	30.027	31.039	31.308	31.746
7/3/2006	8:00	33.097	33.399	33.685	34.047	28.262	25.777	30.775	29.346	30.039	31.056	31.319	35.034
7/3/2006	12:00	33.218	33.490	33.697	34.081	28.254	25.780	30.789	29.346	30.112	31.139	31.415	35.127
7/3/2006	16:00	33.238	33.544	33.714	34.092	28.229	25.772	30.793	29.328	30.117	31.186	31.475	40.380
7/3/2006	20:00	33.283	33.561	33.792	34.165	28.222	25.772	30.797	29.331	30.158	31.233	31.534	41.494
7/4/2006	0:00	33.359	33.582	33.802	34.204	28.279	25.809	30.840	29.39	30.218	31.291	31.592	40.526
7/4/2006	4:00	33.325	33.547	33.773	34.185	28.289	25.821	30.840	29.394	30.256	31.272	31.581	40.551
7/4/2006	8:00	33.347	33.561	33.838	34.239	28.318	25.841	30.862	29.423	30.297	31.294	31.599	39.089
7/4/2006	12:00	33.347	33.561	33.813	34.226	28.335	25.856	30.873	29.441	30.332	31.296	31.601	35.827
7/4/2006	16:00	33.343	33.587	33.788	34.196	28.304	25.847	30.864	29.417	30.339	31.289	31.603	41.366
7/4/2006	20:00	33.474	33.724	33.933	34.324	28.319	25.865	30.926	29.452	30.370	31.424	31.742	39.344
7/5/2006	0:00	33.596	34.070	34.223	34.512	28.377	25.904	31.136	29.586	30.420	31.662	31.958	36.788
7/5/2006	4:00	33.641	34.148	34.303	34.576	28.377	25.920	31.203	29.633	30.435	31.730	32.028	35.756
7/5/2006	8:00	33.620	33.941	34.179	34.545	28.425	25.955	31.141	29.655	30.471	31.637	31.944	38.126
7/5/2006	12:00	33.593	33.878	34.105	34.492	28.432	25.974	31.125	29.646	30.486	31.581	31.887	39.773
7/5/2006	16:00	33.552	33.821	34.042	34.437	28.400	25.967	31.092	29.606	30.519	31.529	31.842	38.761
7/5/2006	20:00	33.534	33.772	34.006	34.410	28.406	25.976	31.070	29.599	30.529	31.493	31.796	36.073
7/6/2006	0:00	33.557	33.802	34.030	34.435	28.452	26.003	31.094	29.637	30.544	31.512	31.811	34.618
7/6/2006	4:00	33.499	33.747	33.990	34.394	28.454	26.011	31.085	29.635	30.524	31.456	31.745	33.865
7/6/2006	8:00	33.536	33.802	34.030	34.425	28.490	26.034	31.105	29.666	30.529	31.485	31.778	33.384
7/6/2006	12:00	33.554	33.812	34.040	34.435	28.494	26.043	31.118	29.672	30.526	31.495	31.776	33.052
7/6/2006	16:00	33.620	33.745	33.985	34.390	28.465	26.031	31.092	29.641	30.483	31.441	31.718	32.795
7/6/2006	20:00	33.462	33.711	33.992	34.376	28.446	26.024	31.079	29.626	30.473	31.397	31.669	33.464
7/7/2006	0:00	33.489	33.760	34.015	34.400	28.485	26.052	31.112	29.666	30.481	31.439	31.709	32.904
7/7/2006	4:00	33.431	33.699	33.963	34.351	28.483	26.057	31.101	29.661	30.456	31.387	31.656	32.627
7/7/2006	8:00	33.433	33.692	33.980	34.372	28.500	26.066	31.114	29.677	30.453	31.382	31.643	32.461
7/7/2006	12:00	33.400	33.680	33.950	34.327	28.492	26.066	31.110	29.666	30.435	31.358	31.621	32.350
7/7/2006	16:00	33.333	33.606	33.883	34.261	28.450	26.045	31.067	29.628	30.387	31.289	31.554	32.235
7/7/2006	20:00	33.357	33.772	34.015	34.308	28.431	26.032	31.141	29.63	30.357	31.345	31.594	32.146
7/8/2006	0:00	33.446	33.872	34.120	34.423	28.448	26.052	31.216	29.707	30.350	31.504	31.771	32.100
7/8/2006	4:00	33.359	33.675	33.948	34.306	28.442	26.052	31.125	29.661	30.324	31.345	31.608	32.027
7/8/2006	8:00	33.366	33.677	34.015	34.363	28.479	26.075	31.141	29.692	30.339	31.350	31.599	31.987

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
7/8/2006	12:00	33.312	33.622	33.923	34.280	28.448	26.061	31.114	29.663	30.317	31.296	31.552	31.945
7/8/2006	16:00	33.257	33.578	33.865	34.220	28.415	26.043	31.085	29.626	30.276	31.245	31.503	31.890
7/8/2006	20:00	33.244	33.570	33.821	34.179	28.391	26.031	31.052	29.593	30.327	31.218	31.488	31.845
7/9/2006	0:00	33.285	33.601	33.863	34.214	28.423	26.054	31.090	29.628	30.425	31.252	31.510	31.832
7/9/2006	4:00	33.232	33.534	33.809	34.175	28.414	26.055	31.061	29.615	30.496	31.200	31.459	31.821
7/9/2006	8:00	33.212	33.515	33.796	34.159	28.417	26.057	31.059	29.61	30.572	31.183	31.437	31.823
7/9/2006	12:00	33.230	33.515	33.796	34.159	28.421	26.061	31.059	29.613	30.544	31.183	31.437	31.825
7/9/2006	16:00	33.199	33.483	33.762	34.130	28.392	26.045	31.037	29.588	30.466	31.156	31.410	34.810
7/9/2006	20:00	33.189	33.473	33.744	34.114	28.373	26.033	31.014	29.562	30.410	31.149	31.408	37.178
7/10/2006	0:00	33.201	33.477	33.748	34.122	28.373	26.033	31.017	29.562	30.395	31.167	31.437	38.407
7/10/2006	4:00	33.224	33.490	33.756	34.136	28.377	26.038	31.025	29.566	30.400	31.191	31.466	39.206
7/10/2006	8:00	33.265	33.513	33.773	34.157	28.377	26.038	31.021	29.566	30.408	31.218	31.501	37.441
7/10/2006	12:00	33.255	33.509	33.775	34.159	28.373	26.036	31.019	29.562	30.410	31.220	31.506	34.861
7/10/2006	16:00	33.208	33.473	33.739	34.122	28.333	26.015	30.992	29.531	30.374	31.181	31.463	33.854
7/10/2006	20:00	33.234	33.521	33.760	34.136	28.318	26.004	30.986	29.52	30.345	31.198	31.486	33.256
7/11/2006	0:00	33.224	33.502	33.764	34.142	28.346	26.027	31.001	29.555	30.327	31.186	31.457	32.835
7/11/2006	4:00	33.207	33.471	33.741	34.116	28.343	26.027	30.999	29.624	30.302	31.157	31.422	32.567
7/11/2006	8:00	33.193	33.479	33.752	34.126	28.375	26.047	31.045	29.65	30.299	31.156	31.421	32.370
7/11/2006	12:00	33.203	33.492	33.764	34.132	28.398	26.061	31.028	29.763	30.299	31.161	31.422	32.250
7/11/2006	16:00	33.177	33.470	33.746	34.111	28.392	26.054	31.025	29.584	30.278	31.142	31.401	32.140
7/11/2006	20:00	33.168	33.456	33.735	34.102	28.394	26.052	31.012	29.575	30.264	31.129	31.384	32.040
7/12/2006	0:00	33.201	33.481	33.758	34.126	28.433	26.073	31.037	29.61	30.276	31.151	31.406	31.983
7/12/2006	4:00	33.179	33.475	33.754	34.118	28.444	26.080	31.043	29.615	30.271	31.142	31.395	31.927
7/12/2006	8:00	33.210	33.496	33.773	34.134	28.469	26.096	31.056	29.639	30.276	31.157	31.406	31.887
7/12/2006	12:00	33.201	33.498	33.777	34.136	28.473	26.100	31.070	29.646	30.273	31.162	31.413	31.859
7/12/2006	16:00	33.164	33.462	33.741	34.103	28.442	26.082	31.041	29.615	30.248	31.129	31.384	31.830
7/12/2006	20:00	33.257	33.770	33.979	34.232	28.452	26.091	31.194	29.679	30.243	31.303	31.546	31.799
7/13/2006	0:00	33.306	33.663	33.887	34.230	28.452	26.098	31.118	29.666	30.233	31.296	31.566	31.777
7/13/2006	4:00	33.242	33.559	33.819	34.173	28.436	26.091	31.085	29.639	30.220	31.216	31.474	31.763
7/13/2006	8:00	33.232	33.566	33.804	34.156	28.436	26.093	31.074	29.633	30.205	31.206	31.470	31.746
7/13/2006	12:00	33.230	33.530	33.794	34.150	28.444	26.096	31.074	29.633	30.223	31.186	31.443	31.739
7/13/2006	16:00	33.173	33.483	33.752	34.107	28.413	26.079	31.052	29.608	30.193	31.142	31.399	31.726
7/13/2006	20:00	33.257	33.597	33.847	34.185	28.404	26.073	31.061	29.604	30.203	31.225	31.488	40.624
7/14/2006	0:00	33.384	33.686	33.918	34.279	28.456	26.108	31.114	29.659	30.266	31.350	31.627	39.926

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
7/14/2006	4:00	33.392	33.667	33.908	34.283	28.467	26.116	31.118	29.672	30.316	31.360	31.639	40.201
7/14/2006	8:00	33.577	33.774	34.006	34.383	28.534	26.159	31.169	29.734	30.400	31.463	31.756	37.091
7/14/2006	12:00	33.503	33.753	34.006	34.389	28.559	26.177	31.196	29.747	30.458	31.458	31.743	34.979
7/14/2006	16:00	33.454	33.718	33.975	34.355	28.544	26.172	31.176	29.743	30.480	31.419	31.701	34.015
7/14/2006	20:00	33.446	33.709	33.979	34.355	28.554	26.179	31.178	29.745	30.493	31.402	31.676	33.431
7/15/2006	0:00	33.577	34.078	34.286	34.547	28.586	26.200	31.369	29.853	30.508	31.640	31.893	33.050
7/15/2006	4:00	33.710	34.207	34.400	34.639	28.605	26.218	31.455	29.917	30.508	31.750	32.008	32.789
7/15/2006	8:00	33.641	33.992	34.278	34.604	28.636	26.242	31.373	29.912	30.521	31.645	31.907	32.600
7/15/2006	12:00	33.632	33.929	34.208	34.560	28.643	26.253	31.349	29.904	30.548	31.600	31.858	32.474
7/15/2006	16:00	33.550	33.855	34.148	34.500	28.617	26.241	31.309	29.864	30.538	31.527	31.785	32.370
7/15/2006	20:00	33.567	33.870	34.164	34.510	28.601	26.232	31.293	29.842	30.528	31.527	31.782	32.297
7/16/2006	0:00	33.612	33.893	34.162	34.526	28.615	26.244	31.304	29.857	30.533	31.561	31.814	32.246
7/16/2006	4:00	33.522	33.823	34.093	34.457	28.600	26.237	31.278	29.833	30.513	31.490	31.747	32.188
7/16/2006	8:00	33.589	33.907	34.158	34.517	28.599	26.235	31.278	29.831	30.495	31.537	31.796	32.140
7/16/2006	12:00	33.616	33.914	34.139	34.508	28.595	26.237	31.280	29.831	30.490	31.566	31.831	33.628
7/16/2006	16:00	33.550	33.865	34.097	34.457	28.559	26.216	31.267	29.8	30.470	31.519	31.787	36.857
7/16/2006	20:00	33.628	33.903	34.162	34.518	28.552	26.213	31.278	29.796	30.488	31.564	31.834	36.197
7/17/2006	0:00	33.620	33.916	34.162	34.530	28.565	26.232	31.295	29.818	30.508	31.591	31.858	33.998
7/17/2006	4:00	33.579	33.870	34.122	34.492	28.576	26.239	31.284	29.822	30.516	31.548	31.816	33.276
7/17/2006	8:00	33.772	34.327	34.526	34.759	28.590	26.255	31.492	29.926	30.536	31.851	32.104	38.766
7/17/2006	12:00	33.912	34.461	34.621	34.858	28.594	26.262	31.563	29.979	30.564	32.007	32.281	40.683
7/17/2006	16:00	33.866	34.193	34.423	34.770	28.578	26.264	31.448	29.935	30.606	31.882	32.175	43.146
7/17/2006	20:00	33.875	34.178	34.427	34.784	28.580	26.269	31.415	29.915	30.654	31.868	32.174	40.099
7/18/2006	0:00	33.907	34.174	34.417	34.802	28.649	26.308	31.444	29.968	30.753	31.887	32.183	36.365
7/18/2006	4:00	33.850	34.114	34.360	34.747	28.655	26.320	31.433	29.961	30.763	31.826	32.115	35.010
7/18/2006	8:00	33.893	34.182	34.396	34.780	28.674	26.334	31.442	29.974	30.781	31.868	32.163	34.224
7/18/2006	12:00	33.936	34.233	34.402	34.784	28.670	26.338	31.442	29.968	30.770	31.890	32.194	35.455
7/18/2006	16:00	33.868	34.102	34.330	34.716	28.630	26.324	31.450	29.946	30.727	31.789	32.073	36.084
7/18/2006	20:00	33.864	34.173	34.381	34.747	28.613	26.313	31.413	29.919	30.758	31.825	32.112	34.525
7/19/2006	0:00	33.916	34.201	34.408	34.780	28.647	26.339	31.457	29.961	30.760	31.863	32.143	33.703
7/19/2006	4:00	33.827	34.114	34.343	34.723	28.651	26.345	31.435	29.954	30.738	31.789	32.059	33.296
7/19/2006	8:00	33.899	34.340	34.551	34.849	28.661	26.354	31.568	30.027	30.727	31.946	32.208	33.028
7/19/2006	12:00	33.848	34.176	34.404	34.763	28.666	26.362	31.495	29.994	30.720	31.830	32.104	32.842
7/19/2006	16:00	33.799	34.161	34.371	34.718	28.642	26.355	31.495	29.979	30.692	31.799	32.073	33.874

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
7/19/2006	20:00	33.832	34.198	34.444	34.772	28.628	26.355	31.517	29.979	30.697	31.833	32.104	37.432
7/20/2006	0:00	33.944	34.328	34.503	34.839	28.678	26.387	31.554	30.02	30.763	31.931	32.208	39.067
7/20/2006	4:00	34.068	34.593	34.745	34.999	28.699	26.405	31.716	30.115	30.793	32.145	32.416	40.015
7/20/2006	8:00	34.265	34.520	34.697	35.076	28.757	26.443	31.654	30.14	30.869	32.201	32.505	38.030
7/20/2006	12:00	34.232	34.488	34.644	35.041	28.745	26.449	31.619	30.113	30.896	32.169	32.471	35.557
7/20/2006	16:00	34.148	34.388	34.585	34.986	28.736	26.451	31.592	30.093	30.902	32.079	32.367	34.966
7/20/2006	20:00	34.086	34.323	34.541	34.937	28.720	26.445	31.561	30.065	30.899	32.005	32.287	35.971
7/21/2006	0:00	34.045	34.313	34.545	34.933	28.732	26.454	31.574	30.08	30.904	32.005	32.279	34.261
7/21/2006	4:00	34.002	34.237	34.476	34.864	28.730	26.454	31.552	30.067	30.886	31.924	32.194	33.697
7/21/2006	8:00	34.043	34.308	34.541	34.925	28.814	26.498	31.601	30.14	30.924	31.977	32.247	33.442
7/21/2006	12:00	34.051	34.298	34.543	34.923	28.860	26.528	31.630	30.175	30.944	31.968	32.225	33.236
7/21/2006	16:00	34.066	34.399	34.562	34.925	28.828	26.523	31.645	30.151	30.914	32.027	32.316	35.346
7/21/2006	20:00	34.201	34.534	34.667	35.021	28.829	26.533	31.703	30.179	30.914	32.149	32.445	35.800
7/22/2006	0:00	34.252	34.781	34.915	35.176	28.859	26.555	31.875	30.278	30.942	32.318	32.584	34.111
7/22/2006	4:00	34.258	34.804	34.960	35.209	28.859	26.565	31.915	30.307	30.942	32.348	32.608	33.550
7/22/2006	8:00	34.211	34.583	34.857	35.184	28.885	26.588	31.840	30.311	30.954	32.238	32.500	33.243
7/22/2006	12:00	34.176	34.553	34.829	35.156	28.887	26.599	31.838	30.305	30.967	32.198	32.460	35.745
7/22/2006	16:00	34.195	34.572	34.777	35.117	28.849	26.588	31.829	30.272	30.957	32.208	32.487	41.208
7/22/2006	20:00	34.297	34.612	34.812	35.158	28.834	26.588	31.836	30.263	30.979	32.257	32.549	41.073
7/23/2006	0:00	34.443	34.699	34.875	35.264	28.872	26.613	31.840	30.298	31.043	32.385	32.680	40.772
7/23/2006	4:00	34.355	34.594	34.800	35.203	28.868	26.618	31.805	30.281	31.088	32.304	32.597	40.845
7/23/2006	8:00	34.306	34.545	34.808	35.199	28.879	26.627	31.794	30.281	31.123	32.265	32.553	37.765
7/23/2006	12:00	34.281	34.545	34.764	35.152	28.862	26.623	31.802	30.27	31.128	32.245	32.542	35.820
7/23/2006	16:00	34.240	34.585	34.766	35.127	28.820	26.606	31.829	30.245	31.093	32.248	32.546	34.839
7/23/2006	20:00	34.371	34.796	34.945	35.272	28.811	26.607	31.898	30.267	31.098	32.400	32.715	34.897
7/24/2006	0:00	34.371	34.727	34.911	35.268	28.847	26.639	31.900	30.311	31.123	32.373	32.657	34.168
7/24/2006	4:00	34.289	34.608	34.810	35.184	28.829	26.637	31.844	30.283	31.088	32.270	32.547	33.756
7/24/2006	8:00	34.242	34.524	34.753	35.140	28.841	26.644	31.811	30.274	31.075	32.198	32.465	35.284
7/24/2006	12:00	34.222	34.519	34.718	35.097	28.816	26.634	31.787	30.245	31.055	32.184	32.463	41.846
7/24/2006	16:00	34.199	34.458	34.694	35.084	28.787	26.616	31.747	30.208	31.053	32.157	32.434	44.384
7/24/2006	20:00	34.261	34.595	34.741	35.109	28.772	26.606	31.756	30.199	31.078	32.238	32.535	38.456
7/25/2006	0:00	34.454	34.950	35.067	35.348	28.813	26.636	31.955	30.318	31.126	32.522	32.806	36.210
7/25/2006	4:00	34.453	34.963	35.111	35.383	28.813	26.648	32.004	30.356	31.128	32.536	32.812	35.107
7/25/2006	8:00	34.493	35.036	35.187	35.442	28.830	26.662	32.052	30.402	31.126	32.590	32.861	34.436

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
7/25/2006	12:00	34.361	34.678	34.907	35.270	28.820	26.666	31.904	30.338	31.113	32.353	32.624	33.991
7/25/2006	16:00	34.289	34.652	34.844	35.195	28.786	26.650	31.898	30.296	31.075	32.299	32.584	34.374
7/25/2006	20:00	34.332	34.735	34.917	35.238	28.765	26.646	31.942	30.292	31.045	32.343	32.628	33.730
7/26/2006	0:00	34.406	34.745	34.920	35.268	28.790	26.678	31.935	30.318	31.048	32.378	32.655	33.491
7/26/2006	4:00	34.295	34.604	34.819	35.180	28.789	26.685	31.889	30.303	31.030	32.257	32.520	33.265
7/26/2006	8:00	34.242	34.553	34.802	35.168	28.832	26.711	31.884	30.322	31.032	32.215	32.469	33.865
7/26/2006	12:00	34.285	34.582	34.785	35.148	28.849	26.726	31.884	30.329	31.030	32.228	32.495	33.201
7/26/2006	16:00	34.330	34.699	34.829	35.184	28.833	26.726	31.902	30.322	31.025	32.304	32.582	39.213
7/26/2006	20:00	34.462	34.958	35.098	35.362	28.828	26.729	32.028	30.367	31.035	32.490	32.754	37.258
7/27/2006	0:00	34.675	35.190	35.296	35.552	28.889	26.766	32.168	30.486	31.106	32.723	32.993	35.109
7/27/2006	4:00	34.737	35.222	35.341	35.605	28.899	26.785	32.210	30.523	31.123	32.764	33.029	34.330
7/27/2006	8:00	34.636	34.986	35.191	35.540	28.937	26.819	32.130	30.532	31.166	32.637	32.903	33.885
7/27/2006	12:00	34.550	34.855	35.078	35.446	28.968	26.840	32.088	30.521	31.176	32.522	32.777	33.588
7/27/2006	16:00	34.499	34.811	35.025	35.389	28.989	26.860	32.077	30.523	31.181	32.460	32.717	33.867
7/27/2006	20:00	34.458	34.749	34.982	35.356	28.968	26.856	32.033	30.488	31.159	32.409	32.664	33.364
7/28/2006	0:00	34.447	34.749	34.974	35.344	29.002	26.877	32.059	30.512	31.191	32.407	32.659	33.203
7/28/2006	4:00	34.379	34.673	34.915	35.287	29.012	26.886	32.033	30.503	31.181	32.338	32.582	33.088
7/28/2006	8:00	34.357	34.652	34.917	35.281	29.031	26.898	32.030	30.51	31.186	32.318	32.557	35.339
7/28/2006	12:00	34.353	34.625	34.879	35.260	29.033	26.900	32.017	30.499	31.204	32.307	32.548	41.757
7/28/2006	16:00	34.357	34.589	34.842	35.231	29.004	26.884	31.979	30.464	31.217	32.296	32.559	44.645
7/28/2006	20:00	34.513	34.956	35.111	35.403	28.993	26.874	32.081	30.488	31.244	32.522	32.797	38.963
7/29/2006	0:00	34.706	35.241	35.338	35.599	29.027	26.904	32.243	30.596	31.302	32.787	33.071	36.460
7/29/2006	4:00	34.772	35.262	35.393	35.677	29.037	26.916	32.287	30.642	31.320	32.865	33.149	35.302
7/29/2006	8:00	34.665	34.998	35.266	35.612	29.058	26.930	32.179	30.613	31.332	32.664	32.927	34.609
7/29/2006	12:00	34.712	34.996	35.186	35.573	29.058	26.935	32.148	30.598	31.352	32.672	32.945	35.176
7/29/2006	16:00	34.638	34.922	35.105	35.493	29.029	26.927	32.101	30.556	31.325	32.588	32.858	35.419
7/29/2006	20:00	34.575	34.842	35.048	35.440	29.010	26.916	32.075	30.525	31.297	32.519	32.783	34.228
7/30/2006	0:00	34.527	34.798	35.020	35.403	29.033	26.934	32.079	30.534	31.299	32.468	32.725	33.798
7/30/2006	4:00	34.433	34.690	34.938	35.326	29.017	26.927	32.044	30.51	31.272	32.377	32.626	33.535
7/30/2006	8:00	34.423	34.694	34.911	35.297	29.019	26.930	32.026	30.501	31.246	32.362	32.621	34.622
7/30/2006	12:00	34.408	34.737	34.938	35.297	29.016	26.935	32.081	30.505	31.262	32.383	32.646	37.800
7/30/2006	16:00	34.437	34.794	34.966	35.317	28.981	26.925	32.112	30.497	31.249	32.429	32.708	38.185
7/30/2006	20:00	34.503	34.910	35.024	35.364	28.966	26.930	32.148	30.499	31.231	32.519	32.821	35.074
7/31/2006	0:00	34.544	34.901	35.064	35.415	28.998	26.958	32.168	30.539	31.251	32.536	32.812	34.275

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
7/31/2006	4:00	34.462	34.781	34.987	35.352	28.989	26.962	32.119	30.521	31.229	32.439	32.701	33.834
7/31/2006	8:00	34.443	34.745	35.020	35.375	29.002	26.972	32.101	30.529	31.229	32.412	32.664	33.548
7/31/2006	12:00	34.447	34.751	35.003	35.360	29.012	26.978	32.097	30.534	31.236	32.409	32.650	33.358
7/31/2006	16:00	34.371	34.652	34.913	35.285	28.993	26.965	32.057	30.508	31.211	32.333	32.573	33.222
7/31/2006	20:00	34.415	34.716	34.982	35.328	28.993	26.964	32.057	30.505	31.196	32.368	32.621	33.101
8/1/2006	0:00	34.597	34.848	35.048	35.426	29.046	26.994	32.126	30.563	31.231	32.500	32.757	33.098
8/1/2006	4:00	34.651	34.836	35.041	35.442	29.056	27.002	32.117	30.567	31.246	32.507	32.759	33.134
8/1/2006	8:00	34.665	34.905	35.090	35.483	29.079	27.015	32.134	30.589	31.279	32.557	32.807	34.828
8/1/2006	12:00	34.626	34.893	35.075	35.460	29.090	27.025	32.145	30.598	31.284	32.542	32.794	33.592
8/1/2006	16:00	34.685	34.922	35.064	35.440	29.072	27.011	32.119	30.578	31.262	32.554	32.828	33.300
8/1/2006	20:00	34.669	35.159	35.306	35.567	29.058	27.006	32.254	30.618	31.239	32.686	32.927	33.156
8/2/2006	0:00	34.864	35.364	35.471	35.724	29.098	27.039	32.398	30.719	31.294	32.887	33.140	37.853
8/2/2006	4:00	35.008	35.450	35.559	35.834	29.108	27.055	32.451	30.766	31.340	33.000	33.257	39.084
8/2/2006	8:00	35.114	35.531	35.677	35.949	29.142	27.082	32.515	30.83	31.398	33.103	33.354	39.906
8/2/2006	12:00	34.958	35.222	35.445	35.816	29.167	27.106	32.402	30.807	31.458	32.919	33.189	43.757
8/2/2006	16:00	34.936	35.117	35.349	35.781	29.141	27.098	32.325	30.748	31.506	32.856	33.129	45.841
8/2/2006	20:00	34.936	35.115	35.342	35.749	29.202	27.135	32.345	30.792	31.582	32.851	33.137	39.530
8/3/2006	0:00	34.835	35.055	35.292	35.695	29.217	27.145	32.329	30.788	31.610	32.782	33.060	37.080
8/3/2006	4:00	34.772	34.999	35.248	35.650	29.236	27.161	32.320	30.825	31.622	32.723	32.996	35.858
8/3/2006	8:00	34.743	34.981	35.245	35.636	29.284	27.184	32.338	30.745	31.635	32.694	32.951	35.105
8/3/2006	12:00	34.710	34.956	35.227	35.610	29.309	27.205	32.351	30.838	31.640	32.660	32.909	34.598
8/3/2006	16:00	34.642	34.891	35.163	35.546	29.284	27.193	32.311	30.798	31.607	32.591	32.838	34.228
8/3/2006	20:00	34.704	34.935	35.195	35.573	29.290	27.189	32.320	30.796	31.587	32.618	32.869	33.989
8/4/2006	0:00	34.960	35.361	35.511	35.802	29.325	27.216	32.508	30.896	31.605	32.924	33.166	33.887
8/4/2006	4:00	35.090	35.501	35.643	35.926	29.317	27.223	32.577	30.935	31.607	33.059	33.302	33.814
8/4/2006	8:00	35.092	35.569	35.734	36.002	29.353	27.246	32.646	30.999	31.630	33.120	33.350	33.707
8/4/2006	12:00	34.991	35.298	35.489	35.851	29.344	27.251	32.502	30.939	31.643	32.944	33.202	33.581
8/4/2006	16:00	34.946	35.254	35.416	35.791	29.299	27.230	32.438	30.88	31.597	32.887	33.151	33.468
8/4/2006	20:00	34.835	35.142	35.374	35.736	29.277	27.210	32.424	30.854	31.577	32.796	33.040	33.377
8/5/2006	0:00	34.909	35.163	35.355	35.732	29.240	27.221	32.393	30.792	31.564	32.821	33.080	33.355
8/5/2006	4:00	34.917	35.098	35.300	35.702	29.257	27.207	32.360	30.812	31.534	32.774	33.024	33.382
8/5/2006	8:00	34.903	35.060	35.302	35.699	29.269	27.210	32.351	30.812	31.537	32.736	32.969	33.694
8/5/2006	12:00	34.753	34.988	35.233	35.620	29.271	27.217	32.340	30.805	31.524	32.664	32.899	37.547
8/5/2006	16:00	34.726	35.007	35.224	35.591	29.244	27.209	32.354	30.785	31.521	32.667	32.920	42.236

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
8/5/2006	20:00	34.846	35.246	35.359	35.693	29.232	27.212	32.433	30.803	31.529	32.846	33.138	40.960
8/6/2006	0:00	34.932	35.264	35.401	35.765	29.280	27.253	32.458	30.854	31.597	32.915	33.206	41.208
8/6/2006	4:00	34.971	35.226	35.384	35.765	29.290	27.263	32.438	30.858	31.630	32.902	33.193	41.423
8/6/2006	8:00	34.928	35.197	35.410	35.789	29.327	27.281	32.449	30.882	31.690	32.887	33.166	41.658
8/6/2006	12:00	34.995	35.256	35.422	35.814	29.334	27.293	32.455	30.895	31.720	32.951	33.251	41.859
8/6/2006	16:00	34.981	35.237	35.397	35.789	29.299	27.283	32.422	30.858	31.761	32.929	33.230	38.320
8/6/2006	20:00	35.010	35.271	35.460	35.852	29.359	27.306	32.469	30.913	31.776	32.959	33.246	36.460
8/7/2006	0:00	34.985	35.233	35.445	35.838	29.380	27.325	32.486	30.933	31.784	32.934	33.206	35.519
8/7/2006	4:00	34.950	35.161	35.403	35.791	29.403	27.344	32.489	30.948	31.789	32.858	33.116	34.925
8/7/2006	8:00	34.969	35.163	35.405	35.804	29.441	27.360	32.495	30.955	31.791	32.865	33.118	34.564
8/7/2006	12:00	34.948	35.195	35.409	35.796	29.440	27.369	32.500	30.97	31.789	32.873	33.127	34.325
8/7/2006	16:00	34.903	35.169	35.449	35.806	29.409	27.357	32.486	30.946	31.754	32.833	33.067	34.053
8/7/2006	20:00	34.903	35.374	35.555	35.828	29.401	27.348	32.595	30.981	31.741	32.914	33.140	33.851
8/8/2006	0:00	35.034	35.545	35.725	35.975	29.451	27.381	32.710	31.076	31.763	33.089	33.323	33.718
8/8/2006	4:00	35.006	35.545	35.740	35.979	29.426	27.381	32.741	31.089	31.725	33.086	33.317	33.603
8/8/2006	8:00	35.104	35.621	35.813	36.055	29.461	27.399	32.794	31.138	31.733	33.167	33.394	34.538
8/8/2006	12:00	35.012	35.332	35.593	35.934	29.463	27.410	32.668	31.098	31.741	32.997	33.239	38.573
8/8/2006	16:00	34.938	35.260	35.508	35.843	29.424	27.392	33.046	31.036	31.761	32.916	33.155	42.836
8/8/2006	20:00	34.967	35.222	35.470	35.828	29.409	27.381	32.546	30.999	31.771	32.902	33.175	37.693
8/9/2006	0:00	35.051	35.336	35.548	35.912	29.438	27.397	32.615	31.034	31.811	33.008	33.277	35.966
8/9/2006	4:00	34.989	35.309	35.517	35.873	29.419	27.397	32.624	31.021	31.794	32.970	33.239	35.114
8/9/2006	8:00	34.987	35.355	35.538	35.879	29.411	27.399	32.644	31.023	31.771	32.990	33.262	34.589
8/9/2006	12:00	35.018	35.347	35.536	35.889	29.415	27.404	32.624	31.025	31.763	32.997	33.266	34.250
8/9/2006	16:00	34.924	35.210	35.441	35.800	29.369	27.385	32.573	30.975	31.736	32.880	33.131	33.995
8/9/2006	20:00	34.862	35.197	35.468	35.800	29.357	27.371	32.551	30.957	31.741	32.839	33.080	33.800
8/10/2006	0:00	35.038	35.611	35.750	35.981	29.388	27.394	32.750	31.067	31.730	33.122	33.366	33.670
8/10/2006	4:00	35.041	35.605	35.792	36.016	29.395	27.408	32.798	31.107	31.710	33.140	33.368	33.570
8/10/2006	8:00	34.952	35.306	35.559	35.892	29.399	27.417	32.652	31.065	31.700	32.956	33.195	33.488
8/10/2006	12:00	34.946	35.264	35.483	35.822	29.407	27.418	32.635	31.047	31.680	32.899	33.149	33.428
8/10/2006	16:00	34.928	35.254	35.468	35.814	29.417	27.420	32.604	31.028	31.665	32.894	33.144	33.375
8/10/2006	20:00	35.008	35.262	35.487	35.840	29.399	27.415	32.575	31.008	31.655	32.902	33.149	33.371
8/11/2006	0:00	34.893	35.186	35.439	35.796	29.451	27.438	32.584	31.039	31.695	32.838	33.067	33.340
8/11/2006	4:00	34.821	35.098	35.372	35.736	29.463	27.447	32.559	31.03	31.685	32.767	32.996	33.306
8/11/2006	8:00	34.774	35.057	35.342	35.701	29.464	27.447	32.548	31.021	31.662	32.725	32.949	33.267

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
8/11/2006	12:00	34.759	35.022	35.313	35.669	29.476	27.452	32.535	31.023	31.657	32.699	32.918	34.383
8/11/2006	16:00	34.714	34.996	35.275	35.630	29.457	27.436	32.513	30.992	31.647	32.669	32.894	41.133
8/11/2006	20:00	34.804	35.212	35.428	35.714	29.442	27.422	32.564	30.99	31.667	32.779	33.011	39.319
8/12/2006	0:00	34.961	35.486	35.685	35.922	29.492	27.452	32.748	31.114	31.736	33.046	33.284	38.801
8/12/2006	4:00	35.020	35.556	35.759	35.990	29.493	27.464	32.803	31.153	31.756	33.123	33.364	38.652
8/12/2006	8:00	35.069	35.611	35.820	36.047	29.499	27.475	32.845	31.186	31.783	33.181	33.423	38.630
8/12/2006	12:00	35.051	35.380	35.658	35.990	29.512	27.492	32.741	31.164	31.816	33.073	33.330	38.663
8/12/2006	16:00	34.973	35.250	35.546	35.902	29.486	27.484	32.661	31.107	32.175	32.965	33.217	38.672
8/12/2006	20:00	34.932	35.214	35.473	35.834	29.464	27.468	32.615	31.063	31.864	32.910	33.164	38.663
8/13/2006	0:00	35.051	35.363	35.536	35.896	29.491	27.484	32.630	31.08	31.864	33.027	33.312	38.655
8/13/2006	4:00	35.053	35.319	35.529	35.904	29.494	27.485	32.619	31.072	31.869	33.015	33.282	38.635
8/13/2006	8:00	35.006	35.245	35.517	35.892	29.516	27.496	32.613	31.083	31.889	32.956	33.208	38.599
8/13/2006	12:00	34.987	35.205	35.473	35.863	29.512	27.494	32.597	31.076	31.912	32.929	33.178	36.750
8/13/2006	16:00	34.932	35.159	35.426	35.813	29.487	27.482	32.573	31.045	31.917	32.877	33.127	42.993
8/13/2006	20:00	35.012	35.277	35.481	35.863	29.520	27.496	32.590	31.065	31.942	32.970	33.250	37.964
8/14/2006	0:00	35.133	35.410	35.576	35.957	29.583	27.528	32.648	31.127	31.980	33.086	33.370	36.234
8/14/2006	4:00	35.061	35.290	35.492	35.890	29.562	27.538	32.570	31.089	31.920	32.980	33.230	35.255
8/14/2006	8:00	35.022	35.245	35.504	35.890	29.605	27.549	32.599	31.107	31.937	32.939	33.173	34.761
8/14/2006	12:00	34.981	35.214	35.492	35.867	29.618	27.545	32.542	31.138	31.945	32.905	33.135	34.427
8/14/2006	16:00	34.922	35.155	35.441	35.818	29.603	27.505	32.515	31.091	31.922	32.848	33.078	34.181
8/14/2006	20:00	34.856	35.096	35.389	35.760	29.566	27.447	32.442	31.019	31.889	32.784	33.011	33.984
8/15/2006	0:00	34.856	35.089	35.388	35.762	29.605	27.424	32.424	31.032	31.889	32.782	33.002	33.842
8/15/2006	4:00	34.813	35.053	35.353	35.724	29.599	27.390	32.389	31.012	31.879	32.743	32.962	33.729
8/15/2006	8:00	34.782	35.020	35.325	35.695	29.597	27.358	32.355	30.992	31.861	32.713	32.929	33.634
8/15/2006	12:00	34.763	35.007	35.311	35.677	29.610	27.341	32.342	30.988	31.852	32.693	32.907	33.561
8/15/2006	16:00	34.733	34.946	35.250	35.624	29.572	27.302	32.287	30.939	31.814	32.639	32.856	33.532
8/15/2006	20:00	34.687	34.941	35.224	35.589	29.549	27.265	32.254	30.902	31.783	32.617	32.839	33.450
8/16/2006	0:00	34.690	34.924	35.218	35.587	29.560	27.251	32.245	30.9	31.783	32.608	32.821	33.408
8/16/2006	4:00	34.646	34.895	35.189	35.554	29.551	27.233	32.230	30.882	31.763	32.571	32.785	33.360
8/16/2006	8:00	34.749	35.218	35.454	35.709	29.558	27.226	32.393	30.955	31.758	32.779	32.982	33.322
8/16/2006	12:00	34.735	35.026	35.315	35.658	29.562	27.226	32.305	30.933	31.753	32.693	32.909	33.298
8/16/2006	16:00	34.655	34.923	35.222	35.574	29.526	27.200	32.241	30.878	31.715	32.603	32.817	33.262
8/16/2006	20:00	34.706	34.904	35.210	35.564	29.497	27.177	32.214	30.84	31.695	32.581	32.792	33.227
8/17/2006	0:00	34.609	34.872	35.170	35.529	29.520	27.180	32.205	30.845	31.685	32.546	32.756	33.202

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
8/17/2006	4:00	34.607	34.836	35.134	35.493	29.520	27.179	32.183	30.834	31.667	32.509	32.719	33.158
8/17/2006	8:00	34.568	34.815	35.115	35.480	29.534	27.175	32.179	30.831	31.659	32.495	32.704	33.143
8/17/2006	12:00	34.568	34.823	35.125	35.470	29.522	27.166	32.216	30.873	31.642	32.487	32.695	33.125
8/17/2006	16:00	34.511	34.768	35.069	35.425	29.495	27.142	32.139	30.781	31.617	32.446	32.657	33.105
8/17/2006	20:00	34.519	34.775	35.062	35.419	29.492	27.129	32.121	30.761	31.601	32.446	32.663	33.083
8/18/2006	0:00	34.513	34.772	35.067	35.429	29.528	27.143	32.132	30.781	31.619	32.446	32.653	33.076
8/18/2006	4:00	34.515	34.779	35.075	35.433	29.555	27.154	32.141	30.796	31.644	32.446	32.650	33.070
8/18/2006	8:00	34.476	34.731	35.029	35.391	29.518	27.131	32.103	30.763	31.602	32.409	32.619	33.050
8/18/2006	12:00	34.482	34.730	35.025	35.388	29.522	27.127	32.097	30.763	31.594	32.406	32.617	33.047
8/18/2006	16:00	34.453	34.697	34.993	35.354	29.489	27.106	32.070	30.717	31.572	32.375	32.586	33.027
8/18/2006	20:00	34.449	34.699	34.997	35.358	29.505	27.105	32.070	30.715	31.574	32.375	32.582	33.014
8/19/2006	0:00	34.482	34.743	35.039	35.397	29.563	27.138	32.143	30.789	31.599	32.409	32.608	32.992
8/19/2006	4:00	34.472	34.732	35.029	35.388	29.572	27.145	32.165	30.842	31.592	32.402	32.602	32.976
8/19/2006	8:00	34.388	34.642	34.884	35.260	29.514	27.103	32.061	30.834	31.518	32.307	32.509	32.932
8/19/2006	12:00	34.427	34.646	34.896	35.278	29.522	27.064	31.849	30.798	31.536	32.316	32.524	32.883
8/19/2006	16:00	34.369	34.610	34.854	35.241	29.443	26.969	31.714	30.745	31.523	32.279	32.487	32.895
8/19/2006	20:00	34.339	34.562	34.801	35.198	29.369	26.858	31.563	30.686	31.505	32.240	32.453	32.881
8/20/2006	0:00	34.332	34.541	34.785	35.190	29.340	26.768	31.442	30.604	31.511	32.226	32.435	32.883
8/20/2006	4:00	34.295	34.486	34.730	35.147	29.299	26.669	31.313	30.516	31.508	32.177	32.387	32.879
8/20/2006	8:00	34.275	34.456	34.701	35.125	29.292	26.581	31.234	30.428	31.508	32.152	32.364	32.879
8/20/2006	12:00	34.293	34.426	34.671	35.104	29.282	26.500	31.158	30.388	31.513	32.128	32.338	32.892
8/20/2006	16:00	34.228	34.378	34.618	35.053	29.221	26.396	31.072	30.062	31.485	32.083	32.296	32.910
8/20/2006	20:00	34.209	34.333	34.572	35.008	29.186	26.317	31.008	30	31.460	32.034	32.247	32.864
8/21/2006	0:00	34.201	34.319	34.564	35.004	29.211	26.285	30.988	29.996	31.470	32.025	32.234	32.855
8/21/2006	4:00	34.137	34.279	34.526	34.970	29.194	26.242	30.953	29.961	31.445	31.990	32.199	32.839
8/21/2006	8:00	34.142	34.279	34.524	34.967	29.215	26.225	30.951	29.956	31.455	31.980	32.188	32.830
8/21/2006	12:00	34.148	34.289	34.536	34.974	29.229	26.214	30.979	29.98	31.458	31.992	32.205	32.833
8/21/2006	16:00	34.125	34.243	34.492	34.933	29.196	26.181	30.942	29.921	31.445	31.948	32.159	32.817
8/21/2006	20:00	34.080	34.224	34.465	34.905	29.184	26.161	30.926	29.894	31.440	31.926	32.136	32.802
8/22/2006	0:00	34.076	34.219	34.467	34.910	29.213	26.170	30.951	29.91	31.455	31.926	32.132	32.802
8/22/2006	4:00	34.043	34.184	34.433	34.873	29.200	26.160	30.946	29.888	31.430	31.892	32.099	32.790
8/22/2006	8:00	34.045	34.192	34.437	34.875	29.221	26.172	30.968	29.899	31.440	31.892	32.099	32.786
8/22/2006	12:00	34.027	34.177	34.425	34.857	29.219	26.172	31.015	29.901	31.432	31.877	32.090	32.788
8/22/2006	16:00	34.063	34.276	34.564	34.937	29.183	26.163	31.207	30.08	31.400	31.960	32.167	32.773

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
8/22/2006	20:00	34.018	34.205	34.459	34.861	29.150	26.151	31.068	29.934	31.372	31.894	32.105	32.751
8/23/2006	0:00	34.012	34.182	34.433	34.847	29.167	26.170	31.050	29.914	31.372	31.872	32.081	32.746
8/23/2006	4:00	33.959	34.127	34.376	34.792	29.131	26.154	31.015	29.861	31.339	31.821	32.034	32.731
8/23/2006	8:00	33.942	34.103	34.347	34.769	29.123	26.154	31.008	29.837	31.331	31.796	32.006	32.715
8/23/2006	12:00	33.916	34.081	34.326	34.743	29.112	26.153	31.008	29.822	31.306	31.777	31.988	32.706
8/23/2006	16:00	33.862	34.021	34.267	34.683	29.047	26.121	30.962	29.764	31.263	31.721	31.935	32.684
8/23/2006	20:00	33.848	34.008	34.256	34.673	29.020	26.110	30.948	29.742	31.238	31.708	31.920	32.658
8/24/2006	0:00	33.827	34.006	34.240	34.653	29.020	26.116	30.953	29.742	31.230	31.688	31.899	32.644
8/24/2006	4:00	33.944	34.342	34.513	34.816	29.018	26.124	31.134	29.82	31.208	31.909	32.112	32.627
8/24/2006	8:00	33.986	34.290	34.505	34.851	29.004	26.131	31.132	29.837	31.193	31.941	32.159	32.611
8/24/2006	12:00	33.901	34.110	34.345	34.739	28.993	26.135	31.048	29.786	31.170	31.794	32.010	32.607
8/24/2006	16:00	33.827	34.017	34.254	34.657	28.951	26.114	30.995	29.729	31.218	31.706	31.920	32.596
8/24/2006	20:00	33.795	33.981	34.214	34.622	28.933	26.112	30.979	29.709	31.311	31.667	31.879	32.585
8/25/2006	0:00	33.791	33.962	34.206	34.618	28.951	26.133	30.986	29.72	31.336	31.657	31.868	32.589
8/25/2006	4:00	33.772	33.948	34.187	34.598	28.951	26.142	30.990	29.72	31.299	31.635	31.846	32.589
8/25/2006	8:00	33.793	33.960	34.198	34.616	28.983	26.174	31.015	29.749	31.281	31.649	31.855	32.587
8/25/2006	12:00	33.819	33.996	34.231	34.638	28.997	26.193	31.055	29.778	31.251	31.678	31.884	32.593
8/25/2006	16:00	33.788	33.964	34.198	34.608	28.974	26.190	31.037	29.751	31.220	31.647	31.857	32.593
8/25/2006	20:00	33.780	33.939	34.177	34.593	28.962	26.191	31.028	29.742	31.192	31.634	31.844	32.578
8/26/2006	0:00	33.766	33.947	34.170	34.585	29.022	26.255	31.052	29.784	31.185	31.620	31.817	32.465
8/26/2006	4:00	33.784	33.958	34.195	34.610	29.010	26.244	31.021	29.733	31.170	31.640	31.840	32.485
8/26/2006	8:00	33.801	33.972	34.204	34.624	28.979	26.216	30.975	29.718	31.183	31.654	31.853	32.489
8/26/2006	12:00	33.811	33.958	34.189	34.626	28.916	26.158	30.900	29.735	31.180	31.649	31.853	32.503
8/26/2006	16:00	33.825	33.972	34.187	34.614	28.872	26.087	30.842	29.696	31.180	31.651	31.857	32.511
8/26/2006	20:00	33.788	33.915	34.135	34.575	28.814	26.003	30.760	29.623	31.162	31.610	31.817	32.507
8/27/2006	0:00	33.774	33.913	34.134	34.577	28.814	25.936	30.725	29.544	31.177	31.613	31.819	32.507
8/27/2006	4:00	33.760	33.867	34.088	34.530	28.778	25.849	30.725	29.504	31.149	31.566	31.771	32.567
8/27/2006	8:00	33.704	33.844	34.061	34.503	28.759	25.781	30.672	29.529	31.129	31.539	31.744	32.469
8/27/2006	12:00	33.700	33.829	34.048	34.495	28.761	25.740	30.625	29.52	31.139	31.531	31.735	32.463
8/27/2006	16:00	33.655	33.772	33.989	34.438	28.709	25.670	30.508	29.544	31.104	31.480	31.689	32.576
8/27/2006	20:00	33.669	33.751	33.964	34.414	28.684	25.606	30.455	29.495	31.099	31.458	31.665	32.494
8/28/2006	0:00	33.634	33.745	33.960	34.410	28.692	25.558	30.426	29.385	31.109	31.456	31.662	32.467
8/28/2006	4:00	33.596	33.700	33.914	34.371	28.661	25.484	30.364	29.302	31.091	31.414	31.620	32.443
8/28/2006	8:00	33.604	33.690	33.901	34.363	28.657	25.437	30.329	29.204	31.086	31.404	31.607	32.423

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
8/28/2006	12:00	33.626	33.677	33.884	34.348	28.636	25.393	30.291	29.138	31.066	31.395	31.603	32.407
8/28/2006	16:00	33.552	33.652	33.855	34.313	28.607	25.352	30.260	29.087	31.043	31.360	31.567	32.396
8/28/2006	20:00	33.587	33.666	33.869	34.334	28.634	25.349	30.260	29.092	31.056	31.379	31.583	32.383
8/29/2006	0:00	33.579	33.656	33.861	34.320	28.650	25.340	30.260	29.096	31.064	31.365	31.570	32.381
8/29/2006	4:00	33.532	33.633	33.834	34.295	28.644	25.320	30.242	29.078	31.053	31.338	31.542	32.374
8/29/2006	8:00	33.563	33.639	33.842	34.297	28.656	25.319	30.249	29.083	31.043	31.343	31.545	32.361
8/29/2006	12:00	33.526	33.635	33.836	34.291	28.654	25.313	30.251	29.083	31.033	31.338	31.543	32.352
8/29/2006	16:00	33.501	33.605	33.796	34.258	28.610	25.285	30.216	29.037	31.008	31.304	31.514	32.341
8/29/2006	20:00	33.499	33.578	33.775	34.238	28.592	25.276	30.209	29.021	30.985	31.279	31.487	32.323
8/30/2006	0:00	33.464	33.571	33.772	34.226	28.610	25.287	30.225	29.039	30.980	31.274	31.480	32.312
8/30/2006	4:00	33.442	33.546	33.751	34.207	28.611	25.290	30.227	29.037	30.973	31.252	31.458	32.303
8/30/2006	8:00	33.452	33.544	33.749	34.203	28.619	25.301	30.238	29.05	30.955	31.247	31.450	32.288
8/30/2006	12:00	33.440	33.533	33.743	34.209	28.615	25.305	30.242	29.05	30.945	31.243	31.443	32.319
8/30/2006	16:00	33.376	33.477	33.686	34.140	28.560	25.275	30.209	29.002	30.902	31.188	31.394	32.274
8/30/2006	20:00	33.368	33.477	33.680	34.130	28.552	25.278	30.216	28.995	30.882	31.181	31.388	32.246
8/31/2006	0:00	33.386	33.481	33.690	34.142	28.583	25.305	30.238	29.026	30.889	31.188	31.394	32.235
8/31/2006	4:00	33.368	33.489	33.695	34.138	28.590	25.319	30.260	29.041	30.879	31.184	31.388	32.224
8/31/2006	8:00	33.372	33.485	33.703	34.148	28.604	25.336	30.277	29.056	30.877	31.189	31.392	32.212
8/31/2006	12:00	33.366	33.485	33.701	34.142	28.611	25.349	30.295	29.07	30.864	31.186	31.388	32.204
8/31/2006	16:00	33.347	33.464	33.676	34.121	28.588	25.345	30.287	29.052	30.844	31.167	31.370	32.190
8/31/2006	20:00	33.355	33.479	33.682	34.121	28.587	25.356	30.300	29.056	30.831	31.171	31.375	32.179
9/1/2006	0:00	33.361	33.485	33.695	34.136	28.611	25.382	30.331	29.087	30.839	31.181	31.383	32.173
9/1/2006	4:00	33.403	33.538	33.739	34.168	28.656	25.417	30.382	29.14	30.849	31.211	31.410	32.177
9/1/2006	8:00	33.403	33.578	33.781	34.197	28.657	25.432	30.417	29.162	30.842	31.247	31.449	32.173
9/1/2006	12:00	33.392	33.529	33.747	34.181	28.661	25.446	30.410	29.164	30.839	31.222	31.425	32.166
9/1/2006	16:00	33.374	33.510	33.728	34.160	28.644	25.447	30.413	29.153	30.826	31.203	31.407	32.476
9/1/2006	20:00	33.440	33.747	33.924	34.268	28.644	25.461	30.537	29.202	30.824	31.336	31.523	35.643
9/2/2006	0:00	33.587	33.954	34.101	34.418	28.682	25.500	30.663	29.301	30.859	31.529	31.726	37.049
9/2/2006	4:00	33.548	33.698	33.909	34.334	28.692	25.523	30.559	29.277	30.894	31.401	31.618	37.891
9/2/2006	8:00	33.585	33.700	33.922	34.363	28.736	25.564	30.583	29.31	30.953	31.421	31.636	38.469
9/2/2006	12:00	33.606	33.717	33.928	34.371	28.757	25.592	30.610	29.336	30.988	31.434	31.653	34.958
9/2/2006	16:00	33.573	33.700	33.909	34.352	28.736	25.595	30.605	29.325	30.983	31.414	31.634	33.997
9/2/2006	20:00	33.635	33.677	33.890	34.338	28.723	25.601	30.603	29.317	30.970	31.396	31.614	33.477
9/3/2006	0:00	33.542	33.668	33.888	34.330	28.740	25.622	30.621	29.336	30.968	31.377	31.593	33.145

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
9/3/2006	4:00	33.517	33.652	33.873	34.311	28.730	25.629	30.623	29.332	30.950	31.358	31.569	32.910
9/3/2006	8:00	33.520	33.650	33.874	34.315	28.750	25.648	30.641	29.354	30.947	31.357	31.567	32.744
9/3/2006	12:00	33.515	33.647	33.873	34.311	28.744	25.655	30.652	29.358	30.935	31.352	31.563	32.622
9/3/2006	16:00	33.478	33.647	33.857	34.279	28.700	25.640	30.650	29.325	30.887	31.333	31.549	32.511
9/3/2006	20:00	33.462	33.624	33.838	34.264	28.688	25.641	30.643	29.321	30.872	31.313	31.522	32.429
9/4/2006	0:00	33.474	33.631	33.852	34.279	28.717	25.671	30.665	29.354	30.867	31.320	31.527	32.374
9/4/2006	4:00	33.460	33.614	33.840	34.268	28.715	25.682	30.672	29.358	30.859	31.308	31.512	32.321
9/4/2006	8:00	33.507	33.637	33.865	34.293	28.753	25.714	30.705	29.398	30.869	31.328	31.527	32.292
9/4/2006	12:00	33.499	33.662	33.890	34.311	28.776	25.736	30.734	29.429	30.879	31.350	31.549	32.277
9/4/2006	16:00	33.491	33.643	33.873	34.299	28.751	25.736	30.727	29.414	30.854	31.335	31.536	32.248
9/4/2006	20:00	33.671	33.671	33.911	34.336	28.774	25.759	30.754	29.442	30.866	31.367	31.563	32.224
9/5/2006	0:00	33.511	33.683	33.916	34.332	28.801	25.784	30.782	29.473	30.872	31.367	31.562	32.215
9/5/2006	4:00	33.501	33.673	33.909	34.322	28.803	25.796	30.791	29.477	30.859	31.355	31.554	32.197
9/5/2006	8:00	33.515	33.696	33.928	34.340	28.828	25.818	30.818	29.508	30.876	31.375	31.569	32.192
9/5/2006	12:00	33.524	33.687	33.926	34.340	28.830	25.832	30.824	29.517	30.869	31.372	31.573	32.190
9/5/2006	16:00	33.481	33.654	33.893	34.305	28.786	25.814	30.809	29.48	30.828	31.340	31.542	32.168
9/5/2006	20:00	33.483	33.656	33.888	34.299	28.774	25.814	30.807	29.475	30.816	31.341	31.540	32.150
9/6/2006	0:00	33.487	33.673	33.909	34.316	28.805	25.841	30.835	29.508	30.816	31.352	31.551	32.144
9/6/2006	4:00	33.485	33.671	33.909	34.315	28.805	25.849	30.844	29.515	30.813	31.347	31.543	32.131
9/6/2006	8:00	33.499	33.677	33.914	34.320	28.811	25.862	30.844	29.526	30.804	31.355	31.551	32.124
9/6/2006	12:00	33.618	33.863	34.088	34.448	28.821	25.876	30.966	29.594	30.811	31.517	31.720	32.126
9/6/2006	16:00	33.515	33.719	33.956	34.354	28.771	25.853	30.884	29.53	30.770	31.399	31.600	32.111
9/6/2006	20:00	33.663	34.038	34.229	34.514	28.755	25.851	31.041	29.59	30.760	31.597	31.784	32.093
9/7/2006	0:00	33.703	34.155	34.330	34.600	28.776	25.878	31.119	29.654	30.763	31.708	31.899	32.095
9/7/2006	4:00	33.731	34.190	34.364	34.634	28.765	25.883	31.147	29.674	30.750	31.742	31.937	32.090
9/7/2006	8:00	33.788	34.245	34.419	34.690	28.784	25.906	31.187	29.716	30.765	31.799	31.990	32.088
9/7/2006	12:00	33.696	33.941	34.183	34.561	28.793	25.922	31.061	29.674	30.773	31.618	31.821	32.101
9/7/2006	16:00	33.620	33.837	34.073	34.465	28.742	25.895	30.990	29.603	30.733	31.517	31.722	32.086
9/7/2006	20:00	33.565	33.761	34.004	34.405	28.722	25.890	30.946	29.566	30.712	31.445	31.649	32.066
9/8/2006	0:00	33.550	33.749	33.993	34.395	28.753	25.915	30.955	29.583	30.728	31.431	31.629	32.068
9/8/2006	4:00	33.520	33.713	33.962	34.365	28.751	25.920	30.941	29.574	30.710	31.399	31.596	32.057
9/8/2006	8:00	33.528	33.715	33.964	34.369	28.778	25.941	30.955	29.594	30.717	31.399	31.593	32.049
9/8/2006	12:00	33.528	33.722	33.968	34.365	28.761	25.953	30.937	29.585	30.730	31.399	31.594	32.053
9/8/2006	16:00	33.485	33.673	33.922	34.328	28.765	25.941	30.939	29.579	30.700	31.360	31.556	32.038

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
9/8/2006	20:00	33.472	33.658	33.909	34.313	28.763	25.945	30.935	29.572	30.685	31.340	31.534	32.022
9/9/2006	0:00	33.491	33.679	33.933	34.334	28.809	25.975	30.990	29.614	30.712	31.363	31.556	32.022
9/9/2006	4:00	33.468	33.656	33.911	34.313	28.778	25.969	31.025	29.594	30.687	31.340	31.532	32.009
9/9/2006	8:00	33.474	33.709	33.949	34.328	28.786	25.973	30.982	29.605	30.675	31.365	31.553	31.978
9/9/2006	12:00	33.495	33.744	33.979	34.354	28.790	25.975	31.006	29.625	30.672	31.396	31.587	31.975
9/9/2006	16:00	33.450	33.656	33.907	34.299	28.740	25.945	30.946	29.691	30.634	31.335	31.532	31.949
9/9/2006	20:00	33.423	33.620	33.874	34.269	28.730	25.930	30.908	29.691	30.612	31.301	31.492	31.918
9/10/2006	0:00	33.429	33.622	33.880	34.277	28.759	25.936	30.904	29.667	30.624	31.306	31.496	31.922
9/10/2006	4:00	33.409	33.603	33.857	34.256	28.743	25.911	30.871	29.636	30.612	31.284	31.474	31.918
9/10/2006	8:00	33.407	33.597	33.850	34.250	28.753	25.900	30.857	29.608	30.604	31.276	31.465	31.904
9/10/2006	12:00	33.439	33.607	33.857	34.264	28.765	25.892	30.848	29.596	30.614	31.293	31.483	31.906
9/10/2006	16:00	33.394	33.599	33.844	34.238	28.745	25.863	30.831	29.488	30.599	31.271	31.461	31.902
9/10/2006	20:00	33.427	33.593	33.838	34.242	28.757	25.855	30.817	29.493	30.667	31.272	31.460	31.895
9/11/2006	0:00	33.448	33.635	33.874	34.279	28.799	25.870	30.842	29.528	30.657	31.313	31.503	31.911
9/11/2006	4:00	33.446	33.631	33.876	34.281	28.813	25.869	30.842	29.537	30.654	31.311	31.501	31.920
9/11/2006	8:00	33.466	33.639	33.882	34.295	28.826	25.869	30.846	29.546	30.657	31.318	31.509	31.915
9/11/2006	12:00	33.470	33.652	33.899	34.305	28.859	25.881	30.866	29.574	30.672	31.330	31.518	31.922
9/11/2006	16:00	33.456	33.641	33.890	34.293	28.853	25.870	30.855	29.566	30.670	31.320	31.514	31.940
9/11/2006	20:00	33.466	33.654	33.899	34.301	28.867	25.874	30.866	29.577	30.667	31.330	31.522	31.929
9/12/2006	0:00	33.483	33.671	33.920	34.322	28.897	25.892	30.886	29.605	30.690	31.350	31.540	31.937
9/12/2006	4:00	33.476	33.660	33.911	34.313	28.899	25.888	30.884	29.603	30.699	31.340	31.529	31.944
9/12/2006	8:00	33.491	33.671	33.922	34.324	28.918	25.897	30.893	29.612	30.707	31.350	31.536	31.944
9/12/2006	12:00	33.493	33.679	33.930	34.330	28.933	25.908	30.908	29.632	30.717	31.358	31.545	31.949
9/12/2006	16:00	33.479	33.652	33.901	34.297	28.887	25.874	30.890	29.605	30.682	31.331	31.522	31.942
9/12/2006	20:00	33.439	33.629	33.880	34.275	28.868	25.860	30.859	29.57	30.675	31.309	31.498	31.931
9/13/2006	0:00	33.439	33.633	33.882	34.279	28.874	25.862	30.864	29.574	30.672	31.314	31.498	31.929
9/13/2006	4:00	33.415	33.607	33.857	34.254	28.861	25.851	30.846	29.557	30.654	31.286	31.476	31.924
9/13/2006	8:00	33.442	33.618	33.866	34.268	28.872	25.858	30.849	29.566	30.662	31.301	31.487	31.918
9/13/2006	12:00	33.402	33.593	33.846	34.238	28.847	25.844	30.837	29.544	30.641	31.271	31.461	31.906
9/13/2006	16:00	33.372	33.559	33.804	34.193	28.788	25.807	30.804	29.502	30.596	31.240	31.438	31.889
9/13/2006	20:00	33.355	33.540	33.786	34.179	28.773	25.798	30.789	29.48	30.571	31.218	31.408	31.873
9/14/2006	0:00	33.355	33.548	33.792	34.187	28.790	25.811	30.795	29.495	30.578	31.225	31.414	31.869
9/14/2006	4:00	33.343	33.538	33.787	34.179	28.790	25.812	30.795	29.495	30.568	31.218	31.405	31.862
9/14/2006	8:00	33.353	33.546	33.796	34.189	28.807	25.825	30.804	29.508	30.571	31.225	31.407	31.858

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
9/14/2006	12:00	33.372	33.553	33.807	34.213	28.809	25.832	30.820	29.522	30.566	31.232	31.414	31.853
9/14/2006	16:00	33.325	33.521	33.771	34.162	28.768	25.805	30.782	29.481	30.548	31.200	31.387	31.842
9/14/2006	20:00	33.407	33.781	33.966	34.268	28.770	25.809	30.901	29.526	30.543	31.343	31.520	31.833
9/15/2006	0:00	33.513	33.960	34.134	34.403	28.791	25.828	31.014	29.605	30.548	31.504	31.684	31.836
9/15/2006	4:00	33.571	34.047	34.219	34.473	28.790	25.837	31.070	29.645	30.543	31.585	31.768	31.836
9/15/2006	8:00	33.526	33.761	34.002	34.375	28.809	25.853	30.935	29.609	30.563	31.428	31.620	31.844
9/15/2006	12:00	33.460	33.679	33.927	34.309	28.791	25.848	30.899	29.581	30.551	31.357	31.543	31.844
9/15/2006	16:00	33.392	33.607	33.859	34.238	28.740	25.814	30.873	29.53	30.535	31.284	31.469	31.827
9/15/2006	20:00	33.370	33.567	33.817	34.205	28.713	25.805	30.813	29.488	30.518	31.249	31.438	31.825
9/16/2006	0:00	33.363	33.569	33.819	34.207	28.745	25.819	30.831	29.515	30.518	31.244	31.430	31.818
9/16/2006	4:00	33.355	33.557	33.813	34.199	28.755	25.832	30.840	29.523	30.518	31.235	31.419	31.811
9/16/2006	8:00	33.329	33.533	33.788	34.176	28.742	25.823	30.813	29.506	30.505	31.213	31.396	31.798
9/16/2006	12:00	33.316	33.517	33.775	34.158	28.728	25.816	30.804	29.501	30.493	31.198	31.379	31.791
9/16/2006	16:00	33.363	33.780	33.970	34.248	28.673	25.786	30.921	29.513	30.445	31.338	31.514	31.774
9/16/2006	20:00	33.476	33.946	34.116	34.371	28.692	25.796	31.014	29.572	30.452	31.480	31.658	31.767
9/17/2006	0:00	33.585	34.044	34.216	34.473	28.738	25.833	31.096	29.638	30.475	31.571	31.744	31.776
9/17/2006	4:00	33.645	34.135	34.313	34.561	28.788	25.886	31.163	29.735	30.498	31.672	31.846	31.758
9/17/2006	8:00	33.762	34.257	34.437	34.683	28.895	25.960	31.269	29.81	30.576	31.789	31.965	31.805
9/17/2006	12:00	33.745	34.034	34.280	34.618	28.889	25.966	31.172	29.797	30.588	31.686	31.879	31.840
9/17/2006	16:00	33.630	33.871	34.126	34.499	28.866	25.948	31.065	29.755	30.591	31.546	31.735	31.847
9/17/2006	20:00	33.583	33.795	34.053	34.442	28.872	25.945	31.019	29.709	30.591	31.475	31.660	31.856
9/18/2006	0:00	33.561	33.761	34.023	34.416	28.895	25.952	31.001	29.709	30.614	31.445	31.627	31.867
9/18/2006	4:00	33.534	33.728	33.990	34.387	28.905	25.950	30.981	29.7	30.614	31.412	31.593	31.867
9/18/2006	8:00	33.546	33.734	33.998	34.397	28.949	25.973	30.992	29.731	30.649	31.419	31.598	31.902
9/18/2006	12:00	33.534	33.723	33.985	34.385	28.960	25.973	30.988	29.726	30.659	31.406	31.585	31.898
9/18/2006	16:00	33.517	33.687	33.953	34.348	28.930	25.946	30.961	29.695	30.644	31.372	31.553	31.887
9/18/2006	20:00	33.524	33.715	33.975	34.371	28.964	25.964	30.979	29.72	30.664	31.397	31.573	31.893
9/19/2006	0:00	33.548	33.738	33.998	34.395	29.004	25.987	31.001	29.753	30.692	31.419	31.594	31.909
9/19/2006	4:00	33.569	33.749	34.002	34.399	29.010	25.987	31.001	29.755	30.699	31.426	31.604	31.918
9/19/2006	8:00	33.589	33.770	34.030	34.430	29.054	26.008	31.030	29.79	30.725	31.450	31.625	31.937
9/19/2006	12:00	33.602	33.780	34.042	34.440	29.064	26.015	31.039	29.801	30.750	31.465	31.644	35.840
9/19/2006	16:00	33.573	33.734	33.992	34.395	29.006	25.973	30.990	29.735	30.730	31.431	31.616	37.476
9/19/2006	20:00	33.678	33.749	33.998	34.407	28.989	25.959	30.981	29.724	30.755	31.453	31.646	38.404
9/20/2006	0:00	33.606	33.753	34.004	34.418	28.987	25.957	30.975	29.72	30.793	31.471	31.671	39.086

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
9/20/2006	4:00	33.616	33.755	34.002	34.420	28.974	25.946	30.963	29.709	30.818	31.480	31.686	39.544
9/20/2006	8:00	33.649	33.770	34.017	34.442	28.966	25.941	30.959	29.7	30.838	31.510	31.720	39.901
9/20/2006	12:00	33.641	33.740	33.987	34.412	28.918	25.906	30.939	29.658	30.835	31.485	31.700	36.497
9/20/2006	16:00	33.546	33.690	33.931	34.346	28.826	25.849	30.868	29.576	30.793	31.424	31.638	34.841
9/20/2006	20:00	33.556	33.684	33.926	34.338	28.820	25.837	30.857	29.567	30.782	31.402	31.611	33.990
9/21/2006	0:00	33.518	33.645	33.895	34.309	28.795	25.821	30.835	29.545	30.760	31.368	31.573	33.457
9/21/2006	4:00	33.446	33.601	33.855	34.268	28.765	25.796	30.804	29.512	30.709	31.319	31.520	33.080
9/21/2006	8:00	33.407	33.567	33.819	34.228	28.732	25.777	30.760	29.481	30.664	31.276	31.474	32.792
9/21/2006	12:00	33.359	33.523	33.775	34.177	28.682	25.738	30.753	29.44	30.614	31.232	31.429	32.635
9/21/2006	16:00	33.273	33.426	33.674	34.082	28.565	25.671	30.645	29.329	30.505	31.135	31.336	32.380
9/21/2006	20:00	33.244	33.424	33.672	34.070	28.575	25.664	30.658	29.336	30.479	31.115	31.306	32.234
9/22/2006	0:00	33.288	33.470	33.720	34.117	28.646	25.708	30.707	29.402	30.505	31.157	31.347	32.148
9/22/2006	4:00	33.310	33.489	33.744	34.140	28.690	25.740	30.735	29.446	30.507	31.178	31.363	32.073
9/22/2006	8:00	33.357	33.525	33.779	34.176	28.740	25.775	30.775	29.49	30.538	31.206	31.390	32.019
9/22/2006	12:00	33.357	33.544	33.800	34.193	28.770	25.798	30.804	29.526	30.553	31.228	31.408	31.988
9/22/2006	16:00	33.355	33.542	33.798	34.189	28.770	25.805	30.804	29.528	30.545	31.223	31.405	31.953
9/22/2006	20:00	33.468	33.681	33.905	34.287	28.813	25.833	30.857	29.576	30.575	31.340	31.534	31.931
9/23/2006	0:00	33.464	33.664	33.908	34.297	28.799	25.865	30.828	29.572	30.608	31.333	31.511	31.929
9/23/2006	4:00	33.464	33.658	33.910	34.301	28.885	25.888	30.908	29.649	30.623	31.336	31.509	31.915
9/23/2006	8:00	33.454	33.645	33.903	34.291	28.884	25.895	30.913	29.649	30.611	31.321	31.500	31.900
9/23/2006	12:00	33.481	33.675	33.937	34.322	28.926	25.927	30.948	29.691	30.646	31.353	31.531	31.906
9/23/2006	16:00	33.489	33.687	33.950	34.334	28.947	25.943	30.968	29.713	30.661	31.363	31.538	31.909
9/23/2006	20:00	33.536	33.747	34.006	34.383	28.999	25.983	31.025	29.768	30.694	31.412	31.582	31.911
9/24/2006	0:00	33.565	33.764	34.032	34.416	29.054	26.024	31.056	29.817	30.734	31.439	31.613	31.933
9/24/2006	4:00	33.583	33.782	34.049	34.434	29.079	26.049	31.081	29.845	30.754	31.455	31.629	31.944
9/24/2006	8:00	33.612	33.818	34.089	34.471	29.127	26.086	31.121	29.891	30.790	31.487	31.658	31.955
9/24/2006	12:00	33.653	33.848	34.120	34.501	29.154	26.108	31.152	29.922	30.818	31.521	31.695	31.977
9/24/2006	16:00	33.620	33.829	34.097	34.473	29.121	26.096	31.136	29.894	30.810	31.499	31.675	31.982
9/24/2006	20:00	33.635	33.846	34.116	34.493	29.129	26.107	31.149	29.907	30.815	31.520	31.693	31.984
9/25/2006	0:00	33.628	33.842	34.112	34.489	29.135	26.116	31.156	29.916	30.823	31.514	31.690	31.991
9/25/2006	4:00	33.614	33.823	34.099	34.477	29.127	26.115	31.152	29.907	30.807	31.502	31.677	31.993
9/25/2006	8:00	33.618	33.827	34.101	34.481	29.139	26.122	31.158	29.92	30.812	31.502	31.677	31.988
9/25/2006	12:00	33.606	33.818	34.091	34.471	29.127	26.119	31.158	29.914	30.812	31.495	31.670	32.004
9/25/2006	16:00	33.571	33.783	34.055	34.436	29.085	26.092	31.132	29.878	30.787	31.461	31.638	31.988

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
9/25/2006	20:00	33.596	33.816	34.122	34.491	29.096	26.101	31.149	29.889	30.800	31.492	31.660	31.982
9/26/2006	0:00	33.604	33.818	34.099	34.479	29.108	26.114	31.156	29.907	30.807	31.497	31.669	31.988
9/26/2006	4:00	33.589	33.804	34.086	34.463	29.102	26.112	31.156	29.9	30.797	31.482	31.656	31.986
9/26/2006	8:00	33.598	33.818	34.093	34.469	29.114	26.126	31.165	29.916	30.800	31.492	31.660	31.984
9/26/2006	12:00	33.579	33.799	34.078	34.454	29.098	26.117	31.160	29.905	30.780	31.475	31.649	31.984
9/26/2006	16:00	33.589	33.949	34.168	34.465	29.033	26.075	31.198	29.876	30.734	31.520	31.684	31.971
9/26/2006	20:00	33.702	34.152	34.352	34.604	29.018	26.070	31.309	29.929	30.714	31.696	31.864	31.955
9/27/2006	0:00	33.751	34.241	34.438	34.681	29.010	26.075	31.362	29.966	30.712	31.784	31.954	31.953
9/27/2006	4:00	33.671	33.939	34.209	34.561	29.025	26.089	31.231	29.922	30.712	31.605	31.782	31.955
9/27/2006	8:00	33.686	33.930	34.206	34.569	29.085	26.138	31.231	29.966	30.754	31.597	31.769	31.962
9/27/2006	12:00	33.725	33.939	34.213	34.587	29.118	26.165	31.264	29.991	30.777	31.612	31.784	31.975
9/27/2006	16:00	33.661	33.896	34.173	34.540	29.093	26.154	31.242	29.966	30.757	31.568	31.742	31.977
9/27/2006	20:00	33.717	33.922	34.200	34.565	29.139	26.186	31.273	30.008	30.795	31.588	31.755	31.984
9/28/2006	0:00	33.719	33.954	34.236	34.602	29.198	26.226	31.313	30.057	30.828	31.623	31.790	32.004
9/28/2006	4:00	33.729	33.962	34.246	34.614	29.221	26.248	31.331	30.079	30.853	31.634	31.799	32.024
9/28/2006	8:00	33.770	33.983	34.269	34.636	29.254	26.272	31.355	30.11	30.876	31.652	31.817	32.033
9/28/2006	12:00	33.749	33.973	34.261	34.626	29.252	26.280	31.351	30.108	30.876	31.647	31.813	32.042
9/28/2006	16:00	33.682	33.920	34.206	34.569	29.185	26.239	31.309	30.046	30.840	31.593	31.766	32.035
9/28/2006	20:00	33.665	33.899	34.179	34.544	29.154	26.221	31.284	30.019	30.820	31.571	31.742	32.024
9/29/2006	0:00	33.630	33.861	34.143	34.508	29.111	26.196	31.251	29.982	30.780	31.539	31.711	32.008
9/29/2006	4:00	33.577	33.816	34.095	34.459	29.062	26.163	31.211	29.933	30.744	31.492	31.666	31.991
9/29/2006	8:00	33.565	33.791	34.072	34.438	29.037	26.145	31.185	29.907	30.714	31.468	31.638	31.968
9/29/2006	12:00	33.577	33.808	34.090	34.456	29.064	26.161	31.205	29.933	30.724	31.480	31.647	31.962
9/29/2006	16:00	33.556	33.793	34.076	34.438	29.041	26.151	31.189	29.916	30.704	31.466	31.635	31.951
9/29/2006	20:00	33.573	33.829	34.108	34.463	29.052	26.161	31.209	29.931	30.722	31.483	31.651	31.946
9/30/2006	0:00	33.573	33.812	34.099	34.459	29.062	26.170	31.211	29.94	30.724	31.482	31.649	31.944
9/30/2006	4:00	33.581	33.816	34.101	34.463	29.073	26.181	31.220	29.949	30.719	31.488	31.655	31.944
9/30/2006	8:00	33.610	33.852	34.135	34.497	29.116	26.212	31.251	29.991	30.749	31.517	31.680	31.951
9/30/2006	12:00	33.657	33.882	34.169	34.532	29.156	26.244	31.287	30.033	30.775	31.548	31.713	31.962
9/30/2006	16:00	33.626	33.865	34.152	34.512	29.131	26.233	31.273	30.013	30.760	31.534	31.702	31.962
9/30/2006	20:00	33.634	33.876	34.160	34.520	29.131	26.237	31.280	30.015	30.777	31.544	31.708	31.964
10/1/2006	0:00	33.653	33.884	34.169	34.532	29.144	26.248	31.287	30.03	30.782	31.553	31.720	31.966
10/1/2006	4:00	33.629	33.869	34.158	34.518	29.141	26.248	31.284	30.026	30.777	31.541	31.707	31.968
10/1/2006	8:00	33.655	33.870	34.158	34.522	29.142	26.249	31.284	30.028	30.774	31.541	31.707	31.971

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
10/1/2006	12:00	33.635	33.873	34.162	34.522	29.140	26.255	31.289	30.03	30.772	31.544	31.710	31.977
10/1/2006	16:00	33.608	33.838	34.128	34.487	29.094	26.221	31.256	29.995	30.820	31.507	31.675	31.971
10/1/2006	20:00	33.694	33.850	34.141	34.504	29.102	26.228	31.260	29.997	30.913	31.524	31.686	31.986
10/2/2006	0:00	33.639	33.875	34.166	34.526	29.131	26.253	31.286	30.028	31.024	31.546	31.708	32.008
10/2/2006	4:00	33.630	33.867	34.158	34.518	29.123	26.251	31.282	30.026	31.092	31.541	31.702	32.030
10/2/2006	8:00	33.678	33.896	34.185	34.551	29.154	26.270	31.307	30.052	31.180	31.571	31.728	32.064
10/2/2006	12:00	33.682	33.911	34.204	34.569	29.169	26.281	31.324	30.072	31.241	31.585	31.746	32.101
10/2/2006	16:00	33.684	33.908	34.196	34.563	29.138	26.265	31.306	30.048	31.178	31.583	31.746	32.115
10/2/2006	20:00	33.715	33.958	34.297	34.643	29.158	26.280	31.340	30.077	31.148	31.627	31.780	32.135
10/3/2006	0:00	33.735	33.960	34.261	34.628	29.179	26.297	31.348	30.096	31.115	31.637	31.793	32.152
10/3/2006	4:00	33.723	33.951	34.248	34.616	29.177	26.297	31.349	30.096	31.080	31.629	31.786	32.157
10/3/2006	8:00	33.739	33.966	34.265	34.630	29.194	26.313	31.364	30.116	31.064	31.644	31.801	32.167
10/3/2006	12:00	33.745	33.981	34.274	34.634	29.207	26.323	31.375	30.127	31.047	31.651	31.810	32.174
10/3/2006	16:00	33.738	33.975	34.261	34.620	29.171	26.304	31.357	30.105	30.999	31.644	31.803	32.163
10/3/2006	20:00	33.822	33.996	34.312	34.673	29.194	26.323	31.377	30.125	30.999	31.673	31.828	32.163
10/4/2006	0:00	33.803	34.038	34.339	34.700	29.259	26.366	31.428	30.187	31.034	31.710	31.863	32.181
10/4/2006	4:00	33.842	34.068	34.368	34.730	29.307	26.403	31.466	30.233	31.054	31.740	31.892	32.197
10/4/2006	8:00	33.905	34.116	34.417	34.781	29.367	26.445	31.512	30.29	31.090	31.786	31.941	32.221
10/4/2006	12:00	33.926	34.162	34.465	34.826	29.428	26.489	31.561	30.348	31.132	31.830	31.981	32.256
10/4/2006	16:00	33.918	34.160	34.455	34.816	29.415	26.493	31.567	30.341	31.120	31.828	31.985	32.265
10/4/2006	20:00	33.938	34.175	34.476	34.837	29.441	26.512	31.583	30.368	31.160	31.848	32.001	32.281
10/5/2006	0:00	33.942	34.181	34.482	34.841	29.447	26.523	31.592	30.374	31.170	31.855	32.007	32.298
10/5/2006	4:00	33.938	34.176	34.480	34.839	29.447	26.530	31.598	30.376	31.165	31.850	32.003	32.303
10/5/2006	8:00	33.953	34.190	34.493	34.853	29.461	26.542	31.612	30.385	31.165	31.865	32.018	32.312
10/5/2006	12:00	33.957	34.203	34.503	34.857	29.459	26.553	31.625	30.401	31.175	31.870	32.025	32.325
10/5/2006	16:00	33.918	34.158	34.457	34.814	29.415	26.523	31.583	30.35	31.130	31.830	31.987	32.311
10/5/2006	20:00	34.084	34.173	34.465	34.830	29.413	26.523	31.585	30.35	31.127	31.850	32.005	32.305
10/6/2006	0:00	33.933	34.175	34.476	34.833	29.434	26.538	31.603	30.37	31.130	31.850	32.003	32.311
10/6/2006	4:00	33.932	34.179	34.480	34.835	29.440	26.547	31.609	30.376	31.132	31.848	32.001	32.310
10/6/2006	8:00	33.937	34.179	34.484	34.839	29.445	26.554	31.614	30.385	31.127	31.855	32.009	32.305
10/6/2006	12:00	33.945	34.190	34.495	34.851	29.455	26.565	31.620	30.399	31.140	31.865	32.018	32.316
10/6/2006	16:00	33.900	34.142	34.442	34.800	29.378	26.517	31.559	30.328	31.100	31.818	31.972	32.296
10/6/2006	20:00	33.889	34.139	34.435	34.788	29.372	26.510	31.565	30.319	31.085	31.806	31.959	32.283
10/7/2006	0:00	33.898	34.143	34.446	34.802	29.392	26.526	31.578	30.339	31.087	31.819	31.972	32.285

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
10/7/2006	4:00	33.877	34.124	34.427	34.779	29.372	26.519	31.565	30.324	31.062	31.797	31.950	32.276
10/7/2006	8:00	33.910	34.133	34.436	34.788	29.388	26.528	31.574	30.337	31.069	31.804	31.954	32.267
10/7/2006	12:00	33.922	34.173	34.455	34.806	29.388	26.535	31.583	30.35	31.069	31.835	31.996	32.272
10/7/2006	16:00	33.865	34.114	34.413	34.765	29.340	26.507	31.547	30.299	31.039	31.787	31.941	32.258
10/7/2006	20:00	33.885	34.135	34.427	34.779	29.349	26.510	31.559	30.31	31.032	31.799	31.952	32.247
10/8/2006	0:00	33.894	34.143	34.440	34.792	29.370	26.530	31.576	30.332	31.037	31.811	31.963	32.254
10/8/2006	4:00	33.883	34.133	34.434	34.786	29.369	26.531	31.576	30.332	31.037	31.803	31.956	32.252
10/8/2006	8:00	33.908	34.156	34.459	34.810	29.403	26.556	31.601	30.363	31.047	31.825	31.974	32.254
10/8/2006	12:00	33.957	34.217	34.490	34.837	29.413	26.567	31.620	30.378	31.062	31.870	32.032	35.934
10/8/2006	16:00	33.994	34.222	34.497	34.859	29.382	26.549	31.605	30.354	31.092	31.902	32.067	42.148
10/8/2006	20:00	34.167	34.272	34.541	34.922	29.401	26.567	31.627	30.376	31.196	31.982	32.162	44.248
10/9/2006	0:00	34.121	34.315	34.589	34.969	29.441	26.591	31.663	30.418	31.264	32.032	32.226	37.093
10/9/2006	4:00	34.123	34.323	34.604	34.984	29.455	26.607	31.678	30.434	31.291	32.041	32.235	35.383
10/9/2006	8:00	34.156	34.355	34.638	35.016	29.482	26.627	31.702	30.46	31.322	32.066	32.247	34.486
10/9/2006	12:00	34.158	34.367	34.650	35.023	29.499	26.642	31.718	30.48	31.334	32.066	32.246	33.944
10/9/2006	16:00	34.125	34.333	34.627	35.000	29.478	26.634	31.709	30.462	31.314	32.034	32.209	33.571
10/9/2006	20:00	34.132	34.353	34.648	35.012	29.482	26.637	31.716	30.471	31.307	32.044	32.213	33.303
10/10/2006	0:00	34.107	34.330	34.629	34.996	29.478	26.639	31.716	30.471	31.289	32.027	32.196	33.111
10/10/2006	4:00	34.084	34.310	34.610	34.976	29.468	26.634	31.707	30.462	31.279	32.005	32.169	32.960
10/10/2006	8:00	34.052	34.283	34.583	34.947	29.441	26.618	31.687	30.436	31.238	31.970	32.134	32.832
10/10/2006	12:00	34.037	34.243	34.541	34.900	29.388	26.588	31.656	30.392	31.191	31.926	32.092	32.723
10/10/2006	16:00	33.955	34.188	34.486	34.847	29.332	26.549	31.685	30.341	31.135	31.875	32.040	32.681
10/10/2006	20:00	33.928	34.167	34.465	34.824	29.307	26.531	31.592	30.317	31.102	31.853	32.016	32.544
10/11/2006	0:00	33.910	34.159	34.453	34.808	29.298	26.524	31.583	30.31	31.079	31.835	31.998	32.489
10/11/2006	4:00	33.873	34.117	34.415	34.771	29.263	26.503	31.554	30.277	31.044	31.799	31.965	32.435
10/11/2006	8:00	33.898	34.114	34.410	34.769	29.263	26.498	31.547	30.273	31.021	31.794	31.954	32.384
10/11/2006	12:00	33.908	34.156	34.454	34.806	29.321	26.535	31.590	30.321	31.052	31.828	31.983	32.358
10/11/2006	16:00	33.951	34.197	34.494	34.847	29.363	26.570	31.616	30.368	31.067	31.870	32.025	32.347
10/11/2006	20:00	33.963	34.207	34.505	34.859	29.380	26.586	31.638	30.383	31.080	31.877	32.031	32.329
10/12/2006	0:00	33.959	34.209	34.509	34.863	29.392	26.597	31.654	30.398	31.082	31.884	32.040	32.320
10/12/2006	4:00	33.990	34.239	34.541	34.892	29.434	26.625	31.685	30.436	31.109	31.912	32.062	32.316
10/12/2006	8:00	34.015	34.266	34.568	34.920	29.470	26.653	31.711	30.471	31.127	31.936	32.085	32.316
10/12/2006	12:00	34.002	34.260	34.562	34.908	29.457	26.651	31.713	30.462	31.122	31.926	32.080	32.309
10/12/2006	16:00	33.947	34.207	34.509	34.855	29.397	26.612	31.671	30.411	31.085	31.880	32.038	32.294

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
10/12/2006	20:00	33.951	34.203	34.507	34.855	29.378	26.611	31.665	30.405	31.072	31.877	32.031	32.278
10/13/2006	0:00	33.974	34.226	34.532	34.878	29.424	26.634	31.687	30.433	31.094	31.899	32.049	32.276
10/13/2006	4:00	33.992	34.241	34.549	34.898	29.451	26.657	31.707	30.46	31.107	31.916	32.067	32.278
10/13/2006	8:00	34.000	34.251	34.556	34.906	29.464	26.667	31.722	30.473	31.107	31.924	32.074	32.278
10/13/2006	12:00	34.025	34.287	34.593	34.934	29.497	26.688	31.744	30.507	31.135	31.953	32.100	32.285
10/13/2006	16:00	33.986	34.241	34.547	34.895	29.447	26.658	31.709	30.46	31.109	31.914	32.067	32.274
10/13/2006	20:00	33.998	34.256	34.560	34.906	29.464	26.671	31.722	30.473	31.115	31.924	32.074	32.272
10/14/2006	0:00	34.039	34.287	34.593	34.937	29.503	26.697	31.756	30.511	31.130	31.953	32.098	32.278
10/14/2006	4:00	34.037	34.294	34.602	34.949	29.518	26.711	31.767	30.528	31.147	31.966	32.116	32.285
10/14/2006	8:00	34.084	34.323	34.631	34.978	29.551	26.732	31.795	30.557	31.162	31.997	32.144	32.296
10/14/2006	12:00	34.060	34.323	34.634	34.978	29.549	26.738	31.804	30.561	31.165	31.995	32.142	32.300
10/14/2006	16:00	34.025	34.281	34.591	34.937	29.491	26.701	31.758	30.506	31.140	31.956	32.107	32.289
10/14/2006	20:00	33.994	34.260	34.566	34.906	29.461	26.679	31.736	30.477	31.117	31.929	32.080	32.276
10/15/2006	0:00	33.963	34.228	34.535	34.873	29.420	26.657	31.705	30.44	31.079	31.899	32.049	32.263
10/15/2006	4:00	33.930	34.192	34.497	34.841	29.390	26.637	31.676	30.414	31.057	31.865	32.018	32.243
10/15/2006	8:00	33.931	34.194	34.499	34.841	29.399	26.637	31.680	30.418	31.044	31.865	32.014	32.234
10/15/2006	12:00	33.937	34.201	34.507	34.849	29.401	26.641	31.685	30.427	31.034	31.870	32.020	32.218
10/15/2006	16:00	33.912	34.169	34.469	34.810	29.355	26.612	31.651	30.38	31.011	31.833	31.985	32.201
10/15/2006	20:00	33.889	34.154	34.457	34.799	29.341	26.600	31.638	30.372	30.986	31.823	31.974	32.183
10/16/2006	0:00	33.891	34.152	34.453	34.794	29.338	26.602	31.634	30.363	30.981	31.818	31.969	32.174
10/16/2006	4:00	33.861	34.127	34.431	34.773	29.318	26.588	31.618	30.389	30.961	31.797	31.950	32.165
10/16/2006	8:00	33.844	34.106	34.411	34.751	29.295	26.570	31.601	30.389	30.940	31.777	31.930	32.147
10/16/2006	12:00	33.820	34.087	34.389	34.728	29.267	26.554	31.576	30.405	30.915	31.757	31.910	32.134
10/16/2006	16:00	33.776	34.041	34.343	34.683	29.213	26.521	31.541	30.42	30.875	31.710	31.868	32.105
10/16/2006	20:00	33.869	34.074	34.364	34.712	29.225	26.519	31.545	30.385	30.877	31.745	31.897	32.094
10/17/2006	0:00	33.815	34.085	34.379	34.720	29.253	26.535	31.565	30.323	30.892	31.743	31.894	32.094
10/17/2006	4:00	33.842	34.108	34.408	34.749	29.299	26.565	31.594	30.286	30.913	31.770	31.916	32.094
10/17/2006	8:00	33.865	34.125	34.427	34.769	29.315	26.581	31.616	30.323	30.923	31.789	31.938	32.099
10/17/2006	12:00	33.914	34.181	34.484	34.824	29.378	26.625	31.671	30.409	30.966	31.843	31.985	32.123
10/17/2006	16:00	33.908	34.178	34.480	34.818	29.370	26.627	31.667	30.405	30.971	31.838	31.985	32.123
10/17/2006	20:00	33.951	34.218	34.518	34.859	29.416	26.660	31.700	30.444	30.998	31.877	32.021	32.136
10/18/2006	0:00	33.984	34.250	34.556	34.894	29.463	26.695	31.736	30.491	31.026	31.911	32.056	32.159
10/18/2006	4:00	34.017	34.283	34.591	34.929	29.511	26.731	31.769	30.535	31.066	31.943	32.083	32.174
10/18/2006	8:00	34.070	34.340	34.648	34.987	29.579	26.776	31.826	30.603	31.122	32.000	32.140	32.203

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
10/18/2006	12:00	34.103	34.376	34.686	35.023	29.620	26.806	31.868	30.645	31.160	32.036	32.178	32.234
10/18/2006	16:00	34.099	34.372	34.684	35.021	29.612	26.813	31.871	30.641	31.167	32.034	32.176	32.247
10/18/2006	20:00	34.132	34.410	34.716	35.051	29.651	26.838	31.902	30.671	31.208	32.063	32.204	32.269
10/19/2006	0:00	34.134	34.410	34.722	35.057	29.651	26.847	31.908	30.678	31.223	32.073	32.215	32.287
10/19/2006	4:00	34.113	34.384	34.697	35.033	29.627	26.840	31.893	30.66	31.213	32.051	32.195	32.289
10/19/2006	8:00	34.107	34.376	34.690	35.025	29.620	26.836	31.888	30.649	31.208	32.044	32.185	32.291
10/19/2006	12:00	34.111	34.385	34.697	35.029	29.616	26.836	31.891	30.652	31.208	32.049	32.195	32.303
10/19/2006	16:00	34.077	34.334	34.642	34.970	29.539	26.791	31.835	30.583	31.150	31.995	32.142	32.283
10/19/2006	20:00	34.052	34.327	34.634	34.969	29.535	26.780	31.833	30.574	31.142	31.990	32.133	32.274
10/20/2006	0:00	34.058	34.340	34.646	34.976	29.549	26.792	31.842	30.59	31.150	31.997	32.144	32.278
10/20/2006	4:00	34.035	34.308	34.619	34.953	29.522	26.778	31.822	30.568	31.125	31.975	32.118	32.267
10/20/2006	8:00	34.025	34.300	34.610	34.943	29.514	26.771	31.813	30.557	31.119	31.963	32.109	32.258
10/20/2006	12:00	34.015	34.281	34.591	34.923	29.483	26.754	31.795	30.537	31.094	31.946	32.094	32.256
10/20/2006	16:00	33.953	34.231	34.539	34.871	29.420	26.713	31.747	30.48	31.049	31.897	32.045	32.227
10/20/2006	20:00	33.974	34.252	34.560	34.888	29.443	26.718	31.756	30.491	31.051	31.914	32.058	32.221
10/21/2006	0:00	33.992	34.273	34.581	34.908	29.470	26.736	31.778	30.515	31.061	31.931	32.072	32.225
10/21/2006	4:00	34.021	34.298	34.606	34.937	29.503	26.759	31.804	30.548	31.079	31.958	32.098	32.229
10/21/2006	8:00	34.074	34.347	34.659	34.990	29.570	26.799	31.848	30.608	31.122	32.002	32.136	32.238
10/21/2006	12:00	34.177	34.423	34.735	35.070	29.656	26.865	31.915	30.694	31.190	32.080	32.219	32.274
10/21/2006	16:00	34.185	34.463	34.775	35.108	29.699	26.896	31.959	30.735	31.238	32.120	32.255	32.298
10/21/2006	20:00	34.226	34.503	34.821	35.151	29.752	26.933	32.008	30.784	31.278	32.162	32.295	32.327
10/22/2006	0:00	34.249	34.526	34.844	35.176	29.779	26.962	32.032	30.815	31.321	32.188	32.322	32.356
10/22/2006	4:00	34.269	34.545	34.861	35.190	29.796	26.979	32.050	30.832	31.341	32.201	32.335	32.376
10/22/2006	8:00	34.277	34.549	34.867	35.200	29.808	26.992	32.061	30.843	31.357	32.213	32.344	32.387
10/22/2006	12:00	34.284	34.562	34.884	35.213	29.819	27.004	32.079	30.859	31.374	32.225	32.360	32.407
10/22/2006	16:00	34.247	34.532	34.848	35.174	29.767	26.977	32.048	30.815	31.341	32.193	32.332	32.409
10/22/2006	20:00	34.294	34.560	34.869	35.198	29.777	26.984	32.059	30.826	31.352	32.218	32.351	32.413
10/23/2006	0:00	34.268	34.545	34.863	35.194	29.783	26.990	32.059	30.828	31.362	32.210	32.348	32.427
10/23/2006	4:00	34.288	34.545	34.865	35.196	29.790	27.000	32.063	30.835	31.362	32.208	32.344	32.433
10/23/2006	8:00	34.290	34.553	34.871	35.207	29.796	27.007	32.068	30.841	31.369	32.220	32.357	32.433
10/23/2006	12:00	34.280	34.558	34.878	35.207	29.798	27.011	32.079	30.848	31.367	32.223	32.359	32.444
10/23/2006	16:00	34.257	34.528	34.842	35.168	29.750	26.981	32.039	30.802	31.341	32.186	32.326	32.435
10/23/2006	20:00	34.253	34.539	34.852	35.178	29.752	26.979	32.045	30.804	31.341	32.196	32.332	32.433
10/24/2006	0:00	34.249	34.532	34.850	35.178	29.758	26.986	32.048	30.808	31.336	32.196	32.333	32.440

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
10/24/2006	4:00	34.238	34.523	34.838	35.166	29.750	26.984	32.043	30.802	31.329	32.184	32.320	32.435
10/24/2006	8:00	34.233	34.511	34.829	35.157	29.733	26.976	32.032	30.788	31.321	32.176	32.311	32.429
10/24/2006	12:00	34.208	34.488	34.810	35.133	29.710	26.962	32.019	30.766	31.304	32.156	32.295	32.420
10/24/2006	16:00	34.161	34.441	34.756	35.082	29.641	26.919	31.966	30.705	31.256	32.108	32.248	32.402
10/24/2006	20:00	34.192	34.481	34.779	35.096	29.639	26.910	31.970	30.702	31.248	32.125	32.260	32.391
10/25/2006	0:00	34.148	34.433	34.745	35.072	29.623	26.902	31.950	30.691	31.230	32.101	32.238	32.384
10/25/2006	4:00	34.134	34.414	34.728	35.057	29.612	26.893	31.937	30.676	31.215	32.079	32.218	32.373
10/25/2006	8:00	34.130	34.406	34.718	35.047	29.598	26.886	31.922	30.665	31.203	32.071	32.209	32.360
10/25/2006	12:00	34.126	34.410	34.720	35.045	29.600	26.886	31.930	30.667	31.208	32.068	32.206	32.353
10/25/2006	16:00	34.112	34.395	34.695	35.024	29.562	26.866	31.895	30.634	31.185	32.056	32.202	32.342
10/25/2006	20:00	34.099	34.374	34.684	35.016	29.558	26.861	31.928	30.627	31.162	32.034	32.253	32.358
10/26/2006	0:00	34.109	34.393	34.701	35.027	29.576	26.872	31.895	30.638	31.160	32.051	32.185	32.272
10/26/2006	4:00	34.105	34.382	34.694	35.021	29.577	26.865	31.877	30.63	31.157	32.042	32.177	32.278
10/26/2006	8:00	34.109	34.382	34.697	35.025	29.589	26.858	31.866	30.627	31.162	32.044	32.178	32.280
10/26/2006	12:00	34.175	34.399	34.713	35.043	29.610	26.859	31.875	30.647	31.177	32.061	32.195	32.287
10/26/2006	16:00	34.109	34.387	34.699	35.027	29.589	26.835	31.855	30.619	31.167	32.047	32.180	32.287
10/26/2006	20:00	34.153	34.416	34.726	35.057	29.616	26.838	31.882	30.634	31.175	32.076	32.209	32.289
10/27/2006	0:00	34.146	34.420	34.730	35.063	29.633	26.833	31.888	30.632	31.195	32.079	32.228	32.342
10/27/2006	4:00	34.130	34.395	34.690	35.031	29.643	26.829	31.893	30.612	31.185	32.054	32.255	32.285
10/27/2006	8:00	34.159	34.422	34.701	35.047	29.691	26.817	31.844	30.579	31.218	32.076	32.209	32.260
10/27/2006	12:00	34.206	34.467	34.743	35.088	29.698	26.787	31.778	30.555	31.248	32.120	32.253	32.289
10/27/2006	16:00	34.173	34.422	34.707	35.059	29.627	26.704	31.678	30.588	31.246	32.085	32.222	32.300
10/27/2006	20:00	34.167	34.429	34.711	35.059	29.606	26.621	31.614	30.493	31.263	32.081	32.215	32.311
10/28/2006	0:00	34.208	34.465	34.753	35.100	29.618	26.554	31.596	30.4	31.289	32.125	32.261	32.329
10/28/2006	4:00	34.196	34.435	34.724	35.086	29.614	26.484	31.545	30.321	31.304	32.107	32.240	32.347
10/28/2006	8:00	34.169	34.399	34.688	35.055	29.581	26.404	31.492	30.268	31.299	32.076	32.211	32.351
10/28/2006	12:00	34.150	34.370	34.657	35.028	29.550	26.322	31.450	30.403	31.286	32.052	32.188	32.349
10/28/2006	16:00	34.105	34.296	34.579	34.951	29.456	26.214	31.370	30.303	31.298	31.977	32.117	32.331
10/28/2006	20:00	34.080	34.273	34.556	34.922	29.441	26.154	31.335	30.272	31.251	31.951	32.089	32.318
10/29/2006	0:00	34.041	34.253	34.535	34.908	29.428	26.124	31.306	30.255	31.220	31.934	32.071	32.314
10/29/2006	4:00	34.015	34.220	34.505	34.882	29.412	26.096	31.277	30.231	31.200	31.907	32.045	32.309
10/29/2006	8:00	33.995	34.198	34.482	34.861	29.405	26.077	31.255	30.211	31.193	31.884	32.020	32.300
10/29/2006	12:00	34.005	34.184	34.469	34.849	29.395	26.059	31.239	30.191	31.175	31.873	32.007	32.287
10/29/2006	16:00	33.927	34.125	34.404	34.783	29.328	26.015	31.180	30.12	31.127	31.811	31.949	32.265

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
10/29/2006	20:00	33.896	34.091	34.371	34.753	29.305	26.001	31.153	30.087	31.099	31.782	31.916	32.247
10/30/2006	0:00	33.853	34.057	34.335	34.710	29.267	25.976	31.120	30.05	31.064	31.743	31.879	32.225
10/30/2006	4:00	33.799	33.996	34.272	34.651	29.207	25.936	31.069	29.986	31.008	31.686	31.821	32.194
10/30/2006	8:00	33.777	33.975	34.251	34.630	29.197	25.927	31.051	29.964	30.988	31.661	31.797	32.172
10/30/2006	12:00	33.777	33.979	34.253	34.628	29.207	25.927	31.054	29.97	30.980	31.661	31.796	32.156
10/30/2006	16:00	33.809	34.010	34.284	34.659	29.253	25.958	31.073	30.001	30.990	31.686	31.816	32.152
10/30/2006	20:00	33.984	34.169	34.446	34.826	29.434	26.078	31.215	30.167	31.106	31.843	31.962	32.192
10/31/2006	0:00	34.021	34.222	34.507	34.882	29.526	26.147	31.291	30.255	31.175	31.900	32.018	32.229
10/31/2006	4:00	34.045	34.249	34.533	34.908	29.566	26.188	31.328	30.295	31.210	31.926	32.047	32.254
10/31/2006	8:00	34.075	34.277	34.560	34.935	29.606	26.223	31.361	30.325	31.255	31.953	32.073	32.285
10/31/2006	12:00	34.083	34.293	34.577	34.949	29.624	26.246	31.388	30.343	31.270	31.968	32.089	32.307
10/31/2006	16:00	34.034	34.233	34.524	34.898	29.564	26.216	31.344	30.286	31.240	31.919	32.045	32.300
10/31/2006	20:00	34.036	34.241	34.528	34.902	29.570	26.226	31.359	30.292	31.256	31.924	32.047	32.309
11/1/2006	0:00	34.052	34.249	34.535	34.908	29.580	26.241	31.373	30.299	31.260	31.931	32.055	32.316
11/1/2006	4:00	34.073	34.264	34.547	34.922	29.599	26.260	31.390	30.319	31.273	31.944	32.067	32.320
11/1/2006	8:00	34.089	34.288	34.573	34.945	29.631	26.288	31.423	30.347	31.296	31.968	32.089	32.338
11/1/2006	12:00	34.121	34.325	34.613	34.983	29.679	26.325	31.461	30.385	31.326	32.003	32.124	32.358
11/1/2006	16:00	34.079	34.287	34.575	34.943	29.637	26.311	31.441	30.358	31.306	31.966	32.089	32.356
11/1/2006	20:00	34.115	34.319	34.604	34.970	29.670	26.334	31.472	30.385	31.336	31.998	32.120	32.367
11/2/2006	0:00	34.126	34.334	34.623	34.990	29.699	26.360	31.501	30.414	31.359	32.014	32.133	32.382
11/2/2006	4:00	34.109	34.311	34.604	34.972	29.691	26.367	31.499	30.411	31.354	31.995	32.117	32.384
11/2/2006	8:00	34.114	34.317	34.610	34.978	29.702	26.382	31.514	30.42	31.356	32.000	32.120	32.391
11/2/2006	12:00	34.138	34.346	34.634	35.002	29.723	26.403	31.540	30.444	31.381	32.025	32.146	32.407
11/2/2006	16:00	34.085	34.302	34.591	34.953	29.660	26.373	31.503	30.389	31.351	31.977	32.102	32.393
11/2/2006	20:00	34.083	34.293	34.581	34.945	29.662	26.369	31.505	30.409	31.336	31.976	32.098	32.388
11/3/2006	0:00	34.109	34.298	34.587	34.949	29.652	26.376	31.510	30.387	31.328	31.976	32.098	32.391
11/3/2006	4:00	34.070	34.285	34.575	34.936	29.637	26.374	31.505	30.38	31.321	31.966	32.086	32.377
11/3/2006	8:00	34.062	34.277	34.568	34.925	29.626	26.373	31.499	30.369	31.308	31.956	32.078	32.371
11/3/2006	12:00	34.031	34.249	34.537	34.896	29.581	26.353	31.472	30.336	31.273	31.931	32.056	32.362
11/3/2006	16:00	33.986	34.22	34.503	34.845	29.507	26.302	31.43	30.277	31.217	31.887	32.025	32.329
11/3/2006	20:00	33.982	34.193	34.48	34.831	29.505	26.3	31.428	30.27	31.202	31.865	32	32.315
11/4/2006	0:00	33.967	34.19	34.474	34.824	29.501	26.302	31.428	30.268	31.195	31.86	31.991	32.309
11/4/2006	4:00	33.937	34.154	34.442	34.79	29.464	26.285	31.403	30.239	31.162	31.826	31.958	32.282
11/4/2006	8:00	33.949	34.169	34.455	34.804	29.487	26.302	31.421	30.259	31.157	31.838	31.967	32.272

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
11/4/2006	12:00	33.972	34.207	34.482	34.826	29.495	26.309	31.45	30.281	31.164	31.865	31.998	32.269
11/4/2006	16:00	33.937	34.162	34.446	34.794	29.461	26.295	31.414	30.242	31.142	31.828	31.96	32.253
11/4/2006	20:00	33.967	34.188	34.474	34.824	29.499	26.325	31.443	30.279	31.149	31.855	31.982	32.253
11/5/2006	0:00	33.974	34.195	34.484	34.833	29.518	26.345	31.463	30.299	31.162	31.865	31.993	32.26
11/5/2006	4:00	33.969	34.192	34.478	34.828	29.512	26.348	31.463	30.299	31.152	31.858	31.985	32.251
11/5/2006	8:00	33.974	34.201	34.488	34.833	29.52	26.357	31.476	30.306	31.154	31.862	31.987	32.245
11/5/2006	12:00	33.997	34.22	34.509	34.855	29.532	26.369	31.492	30.325	31.177	31.887	32.013	32.251
11/5/2006	16:00	33.933	34.167	34.45	34.796	29.464	26.33	31.445	30.261	31.144	31.828	31.956	32.233
11/5/2006	20:00	33.955	34.169	34.455	34.804	29.472	26.336	31.452	30.27	31.139	31.833	31.96	32.225
11/6/2006	0:00	33.945	34.175	34.461	34.808	29.482	26.348	31.463	30.283	31.132	31.84	31.965	32.229
11/6/2006	4:00	33.931	34.155	34.446	34.793	29.472	26.346	31.456	30.277	31.119	31.826	31.951	32.222
11/6/2006	8:00	33.98	34.167	34.453	34.81	29.476	26.353	31.461	30.281	31.122	31.843	31.969	32.214
11/6/2006	12:00	33.945	34.173	34.461	34.808	29.48	26.36	31.47	30.288	31.119	31.838	31.962	32.211
11/6/2006	16:00	33.914	34.144	34.431	34.777	29.438	26.334	31.443	30.25	31.091	31.809	31.934	32.198
11/6/2006	20:00	33.99	34.142	34.431	34.779	29.436	26.337	31.447	30.257	31.086	31.809	31.934	32.189
11/7/2006	0:00	33.931	34.157	34.444	34.79	29.457	26.355	31.463	30.277	31.094	31.826	31.949	32.196
11/7/2006	4:00	33.898	34.127	34.417	34.761	29.432	26.341	31.443	30.253	31.074	31.794	31.92	32.185
11/7/2006	8:00	33.867	34.097	34.385	34.73	29.395	26.318	31.419	30.222	31.043	31.762	31.885	32.163
11/7/2006	12:00	33.847	34.087	34.368	34.712	29.372	26.307	31.405	30.206	31.028	31.745	31.876	32.149
11/7/2006	16:00	33.813	34.045	34.333	34.677	29.33	26.281	31.374	30.167	31	31.713	31.839	32.132
11/7/2006	20:00	33.824	34.045	34.328	34.673	29.34	26.277	31.392	30.184	30.993	31.708	31.832	32.116
11/8/2006	0:00	33.8	34.03	34.316	34.661	29.315	26.274	31.361	30.156	30.973	31.699	31.825	32.109
11/8/2006	4:00	33.769	34.003	34.288	34.632	29.284	26.256	31.337	30.127	30.937	31.669	31.797	32.094
11/8/2006	8:00	33.756	33.984	34.27	34.616	29.263	26.246	31.322	30.109	30.912	31.649	31.777	32.072
11/8/2006	12:00	33.756	33.994	34.276	34.618	29.265	26.248	31.326	30.116	30.917	31.652	31.779	32.061
11/8/2006	16:00	33.728	33.973	34.253	34.589	29.221	26.219	31.302	30.076	30.887	31.63	31.757	32.041
11/8/2006	20:00	33.746	33.982	34.261	34.6	29.25	26.237	31.311	30.098	30.897	31.64	31.763	32.034
11/9/2006	0:00	33.765	34.012	34.288	34.628	29.276	26.26	31.337	30.129	30.907	31.664	31.785	32.036
11/9/2006	4:00	33.783	34.089	34.307	34.647	29.307	26.285	31.362	30.16	30.92	31.681	31.801	32.043
11/9/2006	8:00	33.807	34.047	34.331	34.673	29.34	26.311	31.388	30.191	30.932	31.703	31.821	32.047
11/9/2006	12:00	33.826	34.059	34.35	34.69	29.353	26.323	31.401	30.209	30.947	31.721	31.841	32.05
11/9/2006	16:00	33.795	34.044	34.318	34.657	29.307	26.302	31.375	30.171	30.92	31.696	31.819	32.043
11/9/2006	20:00	33.836	34.048	34.341	34.687	29.328	26.315	31.393	30.189	30.925	31.723	31.845	32.047
11/10/2006	0:00	33.83	34.077	34.352	34.692	29.338	26.327	31.408	30.204	30.927	31.725	31.847	32.052

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
11/10/2006	4:00	33.881	34.127	34.408	34.747	29.411	26.371	31.459	30.272	30.983	31.777	31.89	32.07
11/10/2006	8:00	33.935	34.174	34.457	34.797	29.474	26.417	31.512	30.334	31.021	31.824	31.936	32.087
11/10/2006	12:00	33.992	34.228	34.522	34.859	29.549	26.475	31.574	30.407	31.091	31.88	31.994	32.118
11/10/2006	16:00	34.029	34.275	34.57	34.902	29.597	26.515	31.627	30.462	31.134	31.924	32.034	32.143
11/10/2006	20:00	34.109	34.357	34.652	34.988	29.699	26.586	31.702	30.555	31.215	32.005	32.113	32.187
11/11/2006	0:00	34.14	34.384	34.682	35.017	29.729	26.618	31.736	30.59	31.248	32.037	32.144	32.218
11/11/2006	4:00	34.14	34.384	34.688	35.023	29.737	26.632	31.749	30.601	31.273	32.044	32.157	32.245
11/11/2006	8:00	34.14	34.387	34.686	35.021	29.737	26.64	31.756	30.601	31.278	32.042	32.155	32.26
11/11/2006	12:00	34.138	34.383	34.686	35.022	29.725	26.642	31.753	30.599	31.283	32.042	32.158	32.269
11/11/2006	16:00	34.099	34.317	34.613	34.955	29.629	26.586	31.687	30.513	31.233	31.983	32.106	32.253
11/11/2006	20:00	34.041	34.28	34.575	34.914	29.591	26.558	31.654	30.471	31.197	31.941	32.062	32.242
11/12/2006	0:00	34.04	34.258	34.554	34.892	29.564	26.544	31.636	30.449	31.175	31.922	32.04	32.231
11/12/2006	4:00	33.99	34.231	34.532	34.869	29.535	26.528	31.614	30.422	31.152	31.897	32.014	32.22
11/12/2006	8:00	33.968	34.214	34.512	34.849	29.511	26.512	31.596	30.403	31.129	31.877	31.996	32.207
11/12/2006	12:00	33.974	34.207	34.505	34.842	29.491	26.501	31.585	30.394	31.109	31.872	31.993	32.191
11/12/2006	16:00	33.958	34.176	34.476	34.816	29.458	26.477	31.563	30.361	31.081	31.846	31.963	32.174
11/12/2006	20:00	34.002	34.233	34.533	34.871	29.535	26.524	31.623	30.429	31.119	31.895	32.007	32.183
11/13/2006	0:00	34.048	34.26	34.558	34.896	29.562	26.553	31.64	30.453	31.134	31.917	32.031	32.185
11/13/2006	4:00	34.072	34.298	34.602	34.939	29.616	26.595	31.685	30.511	31.17	31.961	32.075	32.205
11/13/2006	8:00	34.089	34.313	34.617	34.957	29.637	26.611	31.707	30.53	31.19	31.976	32.087	32.216
11/13/2006	12:00	34.085	34.301	34.606	34.945	29.62	26.611	31.698	30.522	31.182	31.968	32.082	32.218
11/13/2006	16:00	33.997	34.222	34.532	34.867	29.514	26.545	31.66	30.438	31.114	31.892	32.013	32.191
11/13/2006	20:00	33.978	34.22	34.522	34.853	29.501	26.533	31.629	30.425	31.096	31.885	32.002	32.18
11/14/2006	0:00	33.986	34.212	34.516	34.851	29.504	26.535	31.625	30.422	31.096	31.879	31.994	32.174
11/14/2006	4:00	33.917	34.161	34.465	34.798	29.435	26.496	31.578	30.365	31.041	31.831	31.949	32.149
11/14/2006	8:00	33.917	34.134	34.436	34.775	29.401	26.473	31.545	30.33	31.013	31.809	31.927	32.127
11/14/2006	12:00	33.857	34.108	34.404	34.736	29.361	26.448	31.516	30.295	30.983	31.77	31.89	32.109
11/14/2006	16:00	33.816	34.064	34.358	34.694	29.307	26.408	31.47	30.242	30.932	31.73	31.849	32.074
11/14/2006	20:00	33.841	34.097	34.391	34.718	29.349	26.429	31.503	30.277	30.95	31.75	31.865	32.07
11/15/2006	0:00	33.904	34.127	34.427	34.755	29.399	26.468	31.539	30.328	30.978	31.781	31.898	32.072
11/15/2006	4:00	33.894	34.142	34.444	34.775	29.432	26.489	31.563	30.358	30.985	31.799	31.912	32.072
11/15/2006	8:00	33.988	34.235	34.539	34.869	29.547	26.566	31.645	30.464	31.069	31.889	31.996	32.103
11/15/2006	12:00	34.039	34.286	34.591	34.922	29.593	26.618	31.678	30.519	31.106	31.944	32.053	32.132
11/15/2006	16:00	34.235	34.347	34.634	34.99	29.6	26.627	31.711	30.53	31.122	32.022	32.133	32.143

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
11/15/2006	20:00	34.101	34.357	34.65	34.978	29.637	26.648	31.744	30.566	31.164	32	32.111	32.165
11/16/2006	0:00	34.13	34.342	34.646	34.982	29.644	26.658	31.749	30.574	31.175	32.003	32.115	32.178
11/16/2006	4:00	34.112	34.33	34.636	34.972	29.627	26.655	31.742	30.561	31.17	31.995	32.107	32.183
11/16/2006	8:00	34.083	34.322	34.633	34.965	29.627	26.656	31.747	30.561	31.17	31.988	32.1	32.187
11/16/2006	12:00	34.066	34.319	34.629	34.957	29.625	26.658	31.749	30.566	31.164	31.977	32.093	32.194
11/16/2006	16:00	33.999	34.262	34.57	34.892	29.545	26.611	31.698	30.495	31.117	31.921	32.036	32.951
11/16/2006	20:00	34.019	34.266	34.568	34.894	29.537	26.6	31.687	30.484	31.117	31.931	32.049	37.159
11/17/2006	0:00	34.036	34.271	34.568	34.902	29.529	26.598	31.68	30.482	31.132	31.946	32.073	38.722
11/17/2006	4:00	34.077	34.3	34.594	34.933	29.545	26.607	31.694	30.493	31.167	31.985	32.118	39.674
11/17/2006	8:00	34.329	34.389	34.667	35.027	29.6	26.646	31.74	30.546	31.245	32.085	32.224	40.354
11/17/2006	12:00	34.239	34.439	34.728	35.082	29.656	26.686	31.789	30.605	31.336	32.139	32.288	40.868
11/17/2006	16:00	34.28	34.467	34.76	35.117	29.669	26.702	31.809	30.623	31.389	32.184	32.337	41.26
11/17/2006	20:00	34.366	34.543	34.836	35.2	29.742	26.745	31.868	30.691	31.49	32.267	32.421	41.586
11/18/2006	0:00	34.421	34.6	34.892	35.256	29.788	26.78	31.913	30.742	31.558	32.326	32.485	39.203
11/18/2006	4:00	34.438	34.617	34.913	35.28	29.808	26.801	31.93	30.762	31.609	32.343	32.499	36.37
11/18/2006	8:00	34.448	34.634	34.939	35.301	29.834	26.824	31.961	30.791	31.634	32.353	32.505	35.197
11/18/2006	12:00	34.46	34.651	34.96	35.319	29.857	26.845	31.984	30.817	31.656	32.365	32.507	34.501
11/18/2006	16:00	34.417	34.628	34.93	35.284	29.819	26.831	31.97	30.788	31.639	32.326	32.465	34.029
11/18/2006	20:00	34.438	34.668	34.964	35.307	29.85	26.852	31.999	30.817	31.646	32.345	32.476	33.702
11/19/2006	0:00	34.444	34.67	34.977	35.323	29.882	26.878	32.023	30.85	31.651	32.353	32.479	33.467
11/19/2006	4:00	34.454	34.676	34.993	35.339	29.907	26.898	32.045	30.876	31.654	32.36	32.483	33.283
11/19/2006	8:00	34.463	34.678	34.997	35.341	29.921	26.916	32.059	30.892	31.659	32.363	32.481	33.141
11/19/2006	12:00	34.458	34.691	35.012	35.35	29.938	26.931	32.079	30.91	31.659	32.37	32.487	33.042
11/19/2006	16:00	34.397	34.632	34.951	35.288	29.871	26.896	32.032	30.85	31.619	32.313	32.434	32.944
11/19/2006	20:00	34.417	34.648	34.968	35.308	29.896	26.914	32.048	30.872	31.629	32.326	32.443	32.873
11/20/2006	11/20/	34.456	34.687	35.006	35.343	29.946	26.949	32.09	30.921	31.649	32.357	32.472	32.836
11/20/2006	4:00	34.454	34.689	35.016	35.35	29.965	26.967	32.103	30.938	31.644	32.365	32.477	32.792
11/20/2006	8:00	34.518	34.687	35.004	35.352	29.94	26.961	32.088	30.921	31.629	32.378	32.492	32.752
11/20/2006	12:00	34.444	34.678	35.006	35.341	29.955	26.972	32.103	30.934	31.629	32.358	32.472	32.73
11/20/2006	16:00	34.37	34.615	34.941	35.268	29.869	26.924	32.048	30.859	31.571	32.292	32.406	32.683
11/20/2006	20:00	34.343	34.59	34.909	35.239	29.84	26.905	32.017	30.83	31.538	32.262	32.379	32.648
11/21/2006	0:00	34.331	34.589	34.907	35.229	29.834	26.9	32.015	30.826	31.52	32.252	32.368	32.625
11/21/2006	4:00	34.272	34.52	34.842	35.168	29.773	26.868	31.961	30.768	31.46	32.196	32.313	32.583
11/21/2006	8:00	34.272	34.514	34.833	35.162	29.767	26.861	31.959	30.762	31.447	32.183	32.297	32.548

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
11/21/2006	12:00	34.255	34.505	34.827	35.155	29.767	26.859	31.955	30.764	31.432	32.174	32.29	32.53
11/21/2006	16:00	34.224	34.48	34.798	35.123	29.731	26.841	31.928	30.729	31.399	32.147	32.263	32.501
11/21/2006	20:00	34.243	34.495	34.814	35.141	29.754	26.85	31.944	30.746	31.414	32.161	32.275	32.484
11/22/2006	0:00	34.231	34.491	34.81	35.133	29.748	26.852	31.944	30.747	31.407	32.156	32.271	32.475
11/22/2006	4:00	34.21	34.46	34.783	35.112	29.729	26.841	31.922	30.727	31.379	32.132	32.248	32.455
11/22/2006	8:00	34.214	34.46	34.791	35.117	29.744	26.852	31.933	30.738	31.374	32.134	32.248	32.439
11/22/2006	12:00	34.222	34.479	34.804	35.127	29.756	26.861	31.944	30.753	31.374	32.147	32.259	32.433
11/22/2006	16:00	34.208	34.471	34.793	35.113	29.731	26.847	31.939	30.731	31.361	32.134	32.248	32.417
11/22/2006	20:00	34.255	34.501	34.819	35.145	29.765	26.868	31.952	30.762	31.406	32.171	32.285	37.145
11/23/2006	0:00	34.29	34.526	34.84	35.172	29.777	26.88	31.97	30.777	31.429	32.208	32.332	38.824
11/23/2006	4:00	34.313	34.53	34.844	35.184	29.769	26.88	31.964	30.771	31.452	32.228	32.361	39.838
11/23/2006	8:00	34.339	34.543	34.856	35.202	29.765	26.878	31.961	30.768	31.49	32.253	32.392	40.534
11/23/2006	12:00	34.366	34.57	34.882	35.227	29.752	26.875	31.964	30.762	31.523	32.28	32.43	41.05
11/23/2006	16:00	34.346	34.532	34.84	35.196	29.694	26.836	31.919	30.707	31.523	32.262	32.419	41.442
11/23/2006	20:00	34.378	34.566	34.865	35.221	29.689	26.831	31.924	30.712	31.543	32.292	32.45	37.559
11/24/2006	0:00	34.376	34.575	34.878	35.229	29.694	26.833	31.93	30.72	31.566	32.292	32.446	35.728
11/24/2006	4:00	34.385	34.583	34.894	35.247	29.723	26.849	31.955	30.744	31.583	32.296	32.443	34.8
11/24/2006	8:00	34.407	34.613	34.928	35.276	29.771	26.884	31.99	30.791	31.593	32.318	32.452	34.224
11/24/2006	12:00	34.419	34.631	34.951	35.298	29.806	26.916	32.021	30.828	31.611	32.335	32.465	33.835
11/24/2006	16:00	34.376	34.594	34.915	35.256	29.767	26.894	31.996	30.793	31.588	32.291	32.421	33.54
11/24/2006	20:00	34.393	34.621	34.939	35.28	29.796	26.917	32.026	30.826	31.593	32.307	32.432	33.327
11/25/2006	0:00	34.38	34.612	34.932	35.266	29.786	26.916	32.021	30.819	31.573	32.294	32.417	33.166
11/25/2006	4:00	34.372	34.606	34.93	35.264	29.804	26.926	32.03	30.832	31.565	32.289	32.409	33.046
11/25/2006	8:00	34.366	34.602	34.926	35.262	29.817	26.937	32.034	30.841	31.558	32.282	32.398	32.942
11/25/2006	12:00	34.37	34.6	34.926	35.26	29.809	26.937	32.032	30.839	31.538	32.282	32.399	32.871
11/25/2006	16:00	34.325	34.566	34.884	35.214	29.752	26.903	31.997	30.786	31.492	32.242	32.361	32.789
11/25/2006	20:00	34.327	34.57	34.89	35.221	29.769	26.91	32.003	30.804	31.492	32.243	32.357	32.734
11/26/2006	0:00	34.317	34.568	34.888	35.213	29.773	26.916	32.007	30.806	31.472	32.235	32.352	32.69
11/26/2006	4:00	34.302	34.549	34.875	35.202	29.773	26.917	32.001	30.804	31.467	32.223	32.337	32.654
11/26/2006	8:00	34.3	34.543	34.871	35.198	29.777	26.919	32.003	30.808	31.449	32.216	32.33	32.619
11/26/2006	12:00	34.302	34.549	34.876	35.202	29.79	26.933	32.012	30.821	31.467	32.22	32.332	32.59
11/26/2006	16:00	34.284	34.545	34.869	35.188	29.773	26.923	32.006	30.808	31.452	32.208	32.319	32.566
11/26/2006	20:00	34.313	34.57	34.897	35.219	29.819	26.951	32.038	30.846	31.465	32.235	32.343	32.552
11/27/2006	0:00	34.356	34.621	34.949	35.268	29.869	26.995	32.076	30.901	31.503	32.279	32.385	32.557

TABLE S3.2 (Cont.)

		Depth to Water (ft TOC) in Well Indicated											
Date	Time	MW-1	MW-2	MW-3	MW-4	KDHE-1	KDHE-2	NW-1	NW-2	NW-3	L-1	L-2	L-3
11/27/2006	4:00	34.356	34.615	34.947	35.268	29.888	27.005	32.094	30.914	31.503	32.282	32.388	32.552
11/27/2006	8:00	34.358	34.606	34.937	35.262	29.884	27.007	32.092	30.91	31.498	32.277	32.387	32.545
11/27/2006	12:00	34.345	34.604	34.941	35.258	29.879	27.009	32.107	30.914	31.482	32.275	32.383	32.532
11/27/2006	16:00	34.3	34.547	34.873	35.192	29.796	26.96	32.034	30.837	31.432	32.213	32.326	32.508
11/27/2006	20:00	34.265	34.528	34.854	35.17	29.777	26.944	32.019	30.815	31.407	32.191	32.306	32.486
11/28/2006	0:00	34.212	34.471	34.8	35.117	29.719	26.91	31.974	30.764	31.359	32.142	32.259	32.457
11/28/2006	4:00	34.175	34.438	34.766	35.079	29.683	26.882	31.932	30.722	31.313	32.107	32.222	32.428
11/28/2006	8:00	34.159	34.422	34.743	35.055	29.664	26.868	31.912	30.707	31.293	32.086	32.199	32.406
11/28/2006	12:00	34.163	34.438	34.76	35.07	29.673	26.866	31.928	30.722	31.293	32.095	32.206	32.388
11/28/2006	16:00	34.14	34.415	34.737	35.039	29.641	26.849	32.231	30.707	31.265	32.074	32.184	32.364
11/28/2006	20:00	34.204	34.478	34.804	35.11	29.735	26.898	32.289	30.779	31.321	32.145	32.241	32.373

Supplement 4:

Quality Control for Sample Collection, Handling, and Analysis

Supplement 4:

Quality Control for Sample Collection, Handling, and Analysis

Soil and groundwater samples were collected in April and May 2006 at Navarre, Kansas, to complete the approved scope of work for the investigation (Argonne 2006). The quality assurance/quality control (QA/QC) procedures followed for sample collection, handling, and analysis followed are described in detail in the *Master Work Plan* (Argonne 2002) and the site-specific work plan (Argonne 2006).

The following sections discuss the quality of the analytical data generated during the Navarre investigation. Evaluation of the analytical data was consistent with U.S. Environmental Protection Agency guidelines (EPA 1994a,b).

S4.1 Sampling to Monitor Sampling Collection, Handling, and Analysis Procedures

Sample collection and handling activities were monitored by the documentation of samples as they were collected and the use of chain-of-custody (COC) forms and custody seals to ensure sample integrity during sample handling and shipment. The QA/QC samples collected included a field blank, equipment rinsates, and trip blanks. Field replicate samples were collected, and other samples were selected for duplicate analyses as a measure of analytical precision. The QA/QC samples are listed in Table S4.1. Analytical results for carbon tetrachloride and chloroform in QA/QC samples collected to monitor sample collection and handling activities are in Table S4.2. The COC forms are in Supplement 5.

S4.1.1 Field Blanks

One field blank was collected, representing water used during equipment decontamination. Carbon tetrachloride and chloroform, the contaminants of concern in the investigation, were not detected in the field blank.

S4.1.2 Equipment Rinsates

Twenty-eight equipment rinsates were collected to monitor decontamination procedures for reusable sampling equipment. Neither carbon tetrachloride nor chloroform was detected above the method quantitation limit in the rinsate samples, indicating that cross-contamination of groundwater samples did not occur during sample collection. Three rinsate samples were collected from the decontaminated sampling equipment after collection of groundwater samples with high levels of carbon tetrachloride (118–260 μg/L; see results for locations MW4, T1, and TI-14 in Supplement 2, Table S2.3). The detection of only trace concentrations of carbon tetrachloride (0.1–0.8 μg/L) in these three rinsates (Table S4.2) indicates that decontamination procedures during the 2006 field investigation were satisfactory.

S4.1.3 Trip Blanks

As an indicator of cross-contamination of samples during shipment, 58 trip blanks were prepared and included with soil or water samples shipped off-site for organic analysis. Included in this total were 27 water trip blanks (1 of which was broken during shipment) and 23 soil trip blanks sent to the Applied Geosciences and Environmental Management (AGEM) Laboratory at Argonne National Laboratory; 4 water trip blanks sent to Envirosystems, Inc. (ENVSY), in Columbia, Maryland; and 4 soil trip blanks sent to Severn-Trent Laboratories (STL) in Colchester, Vermont. Analytical results, shown in Table S4.2, indicate that although sample handling procedures were followed overall during the 2006 investigation, cross-contamination during shipment might have occurred in the following instances:

- Samples from locations TI-27 and TI-28 were shipped together to the AGEM Laboratory on three different days (May 19, 20, and 22, 2006; see Table S4.3). Trip blanks accompanying the samples on May 19 and May 22 arrived intact and contained no detectable volatile organic compounds (VOCs), demonstrating that no cross-contamination occurred during shipment. However, the trip blank accompanying the samples on May 20 arrived broken and could not be analyzed. One of the samples from location TI-28 in that shipment contained a very high level of carbon tetrachloride (3,104 μg/L), and cross-contamination of other samples in that shipment cannot be ruled out. The high contaminant levels in samples from location TI-28 in the May 20 shipment are not questioned, because a similar concentration was detected in a sample from TI-28 shipped on May 22,

2006, with an intact trip blank. However, the much lower contaminant levels in samples from location TI-27 in the May 20 shipment could have resulted from cross-contamination. Results for the affected samples from location TI-27 are qualified in the water sample data table (Supplement 2, Table S2.3).

- Trip blank NAQCTB-052306, shipped with seven groundwater samples to ENVSY on May 23, 2006 (COC 4029), for verification analysis, contained carbon tetrachloride at a concentration of 1.5 µg/L. Also in that shipment (as above) was a sample from location TI-28 with a very high concentration of carbon tetrachloride and a sample from location TI-27 (NATI27-W-20700) in which carbon tetrachloride was detected by ENVSY at 1.6 µg/L (similar to the concentration in the trip blank). In analysis of sample NATI27-W-20700 at the AGEM Laboratory, no contamination was detected. The discrepancy between the AGEM Laboratory result and the ENVSY result is assumed to be the result of cross-contamination. Qualification of the AGEM Laboratory result is not warranted. See also Section S4.4.

S4.1.4 Replicate Samples and Duplicate Analyses

As an indicator of the consistency of the sampling methodology followed and to provide a measure of analytical precision, replicate soil and groundwater samples were collected. In addition, samples were selected by the AGEM Laboratory for duplicate organic analyses. Additional soil and groundwater samples were selected for verification organic analysis at a secondary laboratory. Replicate samples, samples selected for duplicate analyses, and samples selected for verification organic analysis are listed in Table S4.1.

S4.1.5 Sample Representativeness

One groundwater sample was rejected as non-representative of site conditions, and a replacement sample was collected. The original groundwater sample, NATI20-W-20912, was collected at location TI-20 from a depth interval of 42–47 ft BGL on May 23, 2006. Very limited water was available for collection. Carbon tetrachloride was detected at 1.2 µg/L. Sample NATI20-W-20713 was collected at the same location and interval on the following day; carbon tetrachloride was detected at 13 µg/L. Because the latter level of contamination is consistent with

other vertical-profile samples at the TI-20 location, the initial sample was rejected and is not included in the investigation data (Supplement 2, Table S2.3).

S4.2 Quality Control for Organic Analysis of Soil and Water Samples at the AGEM Laboratory

Vertical-profile subsurface soil sampling was conducted at 20 locations to investigate site contamination. In this effort, 382 soil samples were collected. Four additional samples were collected at location CP-1, which was investigated to confirm historical lithology data. Fifteen replicate samples were collected for QC purposes. The subsurface soils were analyzed at the AGEM Laboratory for VOCs, including carbon tetrachloride and chloroform, by using a modification of EPA Method 8260B (purge-and-trap method), as referenced in the EPA's SW-846 (http://www.epa.gov/epaoswer/hazwaste/test/8_series.htm) to achieve a quantitation limit of 10.0 µg/kg.

Soil samples were quick-frozen on dry ice as they were collected. At the laboratory, the VOCs in each soil sample were extracted with methanol from the sample matrix. For the purge-and-trap soil analyses, an aliquot of the methanol extract was purged, and the volatile species were transferred to a sorbent tube. After purging, the sorbent tube was heated and backflushed with an inert gas to desorb the components into a gas chromatograph-mass spectrometer (GC-MS) system.

Groundwater sampling was conducted at 47 locations, including 3 private wells, 13 monitoring wells (or piezometers) installed during prior investigations, and 31 newly established vertical-profile direct-push sampling locations. In total, 196 groundwater samples (and an additional 35 field replicate samples) were collected for organic analysis at the AGEM Laboratory with EPA Method 524.2 (EPA 1995) to achieve a quantitation limit of 1.0 µg/L. (The sample discussed in Section S4.1.5 that was rejected as non-representative of site conditions is not included in the total of 196 samples.)

Water samples shipped to the AGEM Laboratory were analyzed by the purge-and-trap method with a GC-MS system. For the purge-and-trap analyses, VOCs present in the groundwater sample were extracted (purged) from the sample matrix by bubbling an inert gas through the sample. The purged components were trapped in a sorbent tube. After purging, the

sorbent tube was heated and backflushed with an inert gas to desorb the components into the GC-MS system.

For both the soil and water analyses, the compounds eluting from the GC column were identified by retention time and by comparison with reference library spectra. The concentration of each component was calculated by comparison of the MS response for the quantitation ion to corresponding calibration curves, the responses for internal standards, or both. The internal standard recovery limits were 80–120%. Calibration checks with each sample delivery group (SDG) were required to be within ±20% of the standard.

Samples submitted to the AGEM Laboratory for organic analysis were analyzed in 58 SDGs, as shown in Table S4.4. The QA/QC procedures followed included analysis of instrument calibration check standards, analysis of laboratory blanks, monitoring of surrogate spike recovery, and duplicate laboratory analyses. Significant results include the following:

- Samples shipped to the AGEM Laboratory were received with custody seals intact and at the appropriate temperature. All samples were analyzed within required holding times (except for the broken trip blank discussed in Section S4.1.3).

- Carbon tetrachloride and chloroform, contaminants of concern in the investigation, were not detected in laboratory method blanks analyzed with the samples. Methylene chloride was present at trace concentrations in the methanol used for extraction of the soil samples. Detection of methylene chloride at similar concentrations in the soil samples is not reported.

- For each SDG, analytical instrument calibration was monitored by the analysis of calibration check standards. Table S4.4 shows the relative percent difference (RPD) values between the known and calculated concentrations of the standards. The concentrations of calibration check standards measured in all SDGs were within the acceptable range of ±20%.

- Several samples had carbon tetrachloride and/or chloroform concentrations above instrument calibration when they were analyzed undiluted (dilution

factor = 1 or DF1). The samples were reanalyzed at dilution as indicated in Table S4.4.

- Surrogate standard determinations were performed on samples and blanks by using surrogate spike compounds fluorobenzene, 1,4-dichlorobenzene-d_4, and bromofluorobenzene. Table S4.4 shows the percent recovery of these system-monitoring compounds for each analysis. With the following exceptions, the surrogate recoveries were within the specified range of 80–120% for all samples in either the initial analysis of the sample or a successful reanalysis of the sample:

  - In the analysis of rinsate NAQCRI-W-20189 in SDG 06-4-7, the recovery of surrogate compound fluorobenzene was 78%. Recovery of other surrogates was within control limits. The result for NAQCRI-W-20189 is accepted without qualification.

  - In the analysis of rinsate NAQCRI-W-20187 in SDG 06-4-7, the recovery of surrogate compound fluorobenzene was 78%. Recovery of other surrogates was within control limits. The result for NAQCRI-W-20187 is accepted without qualification.

  - In the analysis of trip blank NAQCTB-S-20208 in SDG 06-4-11b, the recovery of surrogate compound dichlorobenzene-d_4 was 79%. Recovery of other surrogates was within control limits, and the result for NAQCTB-S-20208 is accepted without qualification.

  - In the analysis of rinsate NAQCRI-W-20386 in SDG 06-4-18a, the recoveries of surrogate compounds fluorobenzene and bromofluorobenzene were 131% and 125%, respectively. High surrogate recovery would not inhibit detection of contamination, and the result for NAQCRI-W-20386 is accepted without qualification.

  - In the analysis of trip blank NAQCTB-S-20346 in SDG 06-4-26b, the recovery of surrogate compound dichlorobenzene-d_4 was 68%. Recovery

of other surrogates was within control limits. The result for NAQCTB-S-20346 is accepted without qualification.

- In the analysis of groundwater sample NATI11-W-20506 in SDG 06-4-27a, the recovery of surrogate compound fluorobenzene was 136%. The high recovery would not inhibit detection of contamination. The result for NATI11-W-20506 is accepted without qualification.

- In the analysis of groundwater sample NATI10-W-20627 in SDG 06-5-2b, the recovery of surrogate compound dichlorobenzene-d_4 was 79.2%. Recovery of other surrogates was within control limits. The result for NATI10-W-20627 is accepted without qualification.

- In the analysis of soil sample NATI12-S-20754 in SDG 06-5-6, the recoveries of surrogate compounds fluorobenzene and dichlorobenzene-d_4 were 126% and 132%, respectively, while the recovery of surrogate compound bromofluorobenzene was 48%. No contamination was indicated in any samples from the TI-12 sampling location. The result for NATI12-S-20754 is accepted without qualification.

- In the analysis of soil sample NATI12-S-20747 in SDG 06-5-6, the recovery of surrogate compound bromofluorobenzene was 197%. The high recovery would not inhibit detection of contamination. The result for NATI12-S-20747 is accepted without qualification.

- In the analysis of soil sample NATI14-S-20665 in SDG 06-5-8b, the recovery of surrogate compound fluorobenzene was 79%. Recovery of other surrogates was within control limits. The result for NATI14-S-20665 is accepted without qualification.

- In the analysis of trip blank NAQCTB-W-20694 in SDG 06-5-10a, the recoveries of surrogate compounds fluorobenzene, bromofluorobenzene, and dichlorobenzene-d_4 were 70%, 67%, and 75%, respectively. Evaluation of the water samples associated with trip blank

NAQCTB-W-20694 indicated that cross-contamination did not occur. The result is accepted without qualification.

- Dual analyses of soil and groundwater samples were conducted at the AGEM Laboratory as a measure of consistency in the sampling and analytical methodologies. The dual analyses were accomplished through the analysis of replicate samples submitted to the laboratory or duplicate analyses of samples selected by the laboratory. Table S4.5 summarizes the analytical results for carbon tetrachloride and chloroform in the primary samples and the associated replicate or duplicate analyses. Consistency in both the sampling and analytical methodologies is indicated by the average RPD values of 14.3% for carbon tetrachloride, 11.3% for chloroform, and 17.9% for methylene chloride, for those dual analyses in which the contaminants were present.

The analytical data from the AGEM Laboratory are acceptable for quantitative determination of contaminant distribution.

S4.3 Quality Control for Verification Organic Analysis of Soil Samples by Severn-Trent Laboratories

In accordance with the QA/QC procedures defined in the *Master Work Plan* (Argonne 2002), selected soil samples analyzed at the AGEM Laboratory for VOCs by using EPA Method 8260B were subjected to verification analysis at a second laboratory with the same analytical procedure. Thirty-four of the 382 vertical-profile soil samples analyzed at the AGEM Laboratory (8.9% of the soil samples) were also analyzed by STL. The results were reported in 4 SDGs. The STL data packages are in Supplement 5.

The QA/QC procedures followed at STL included initial and continuing calibration of instruments, analysis of laboratory blanks, monitoring of surrogate spike recovery, and analyses of laboratory QC samples. Significant results include the following:

- Soil samples shipped to STL were received with custody seals intact and at the appropriate temperature. All samples were analyzed within required holding times.

- Analytical instruments were properly tuned; initial and continuing calibration checks remained within the allowable range.

- Carbon tetrachloride and chloroform, the primary contaminants of concern in the investigation, were not detected in the associated blanks analyzed with the samples. Low levels of chloromethane, bromomethane, methylene chloride, butanone, and xylene were present in the methanol used for soil extraction and were detected in most of the samples, but these low concentrations are not reported.

- Surrogate standard determinations were performed on samples and blanks by using the surrogate spike compounds toluene-d_8, 1,2-dichloroethane-d_4, bromofluorobenzene, and 1,2-dichlorobenzene-d_4. Table S4.6 shows the percent recovery of the each system-monitoring compound in each analysis. Recoveries of the surrogate compounds were within the target range for most analyses. The recovery of 1,2-dichlorobenzene-d_4 trended low for most samples in SDG 113901, but other surrogate compounds were recovered well. Qualification of the data is not warranted.

- To evaluate the matrix effect of samples on the analytical methodology, laboratory QC samples containing a suite of spike compounds that included carbon tetrachloride and chloroform were analyzed with each SDG. Table S4.7 shows the percent recoveries of carbon tetrachloride and chloroform in the spiked analyses. Quality control limits were met for these analyses.

Analytical results for soil samples analyzed at the AGEM Laboratory with EPA Method 8260B are supported by the results from STL obtained with the same analytical method. The verification organic results for the soil samples are summarized in Table S4.8. Agreement is good over the range of contaminant concentrations detected. Soil samples analyzed at the AGEM Laboratory with no detection of contamination were analyzed at STL with similar results. The inherent heterogeneity of soil samples is evident in the average RPD values of 56.2% for carbon tetrachloride and 28.3% for chloroform.

S4.4 Quality Control for Verification Organic Analysis of Groundwater Samples by Envirosystems, Inc.

In accordance with the QA/QC procedures defined in the *Master Work Plan* (Argonne 2002), the analyses of water samples at the AGEM Laboratory with EPA Method 524.2 were verified at a second laboratory using EPA-defined Contract Laboratory Program (CLP) methodology. Twenty-one of the 196 groundwater samples analyzed at the AGEM Laboratory (10.7% of the groundwater samples) were also analyzed according to CLP methodology by ENVSY. The results were reported in 4 SDGs. The ENVSY data packages are in Supplement 5.

The QA/QC procedures followed in the CLP analyses included initial and continuing calibration of instruments, analysis of laboratory blanks, and monitoring of surrogate spike recovery. Significant results include the following:

- Samples shipped to the CLP laboratory were received with custody seals intact and at the appropriate temperature. All samples were analyzed within required holding times.

- Analytical instruments were properly tuned; initial and continuing calibration checks remained within the allowable ranges for all contaminants of interest.

- Carbon tetrachloride and chloroform were not detected in the laboratory method blanks. Methylene chloride was present at low concentrations in laboratory blanks. Similar concentrations reported in most samples resulted in qualification of the methylene chloride results, except for sample NATI14-W-20666, which had methylene chloride present at 12 µg/L.

- As discussed in Section S4.1.3, cross-contamination of sample NATI27-W-20905 during shipment to ENVSY is a possibility. Having been shipped with sample NATI28-W-20904 (in which carbon tetrachloride was detected at 3,104 µg/L), sample NATI27-W-20905 contained carbon tetrachloride at 1.6 µg/L, similar to the concentration of 1.5 µg/L detected in the associated trip blank.

- Surrogate standard determinations were performed on samples and blanks by using the surrogate spike compounds toluene-d_8, bromofluorobenzene, and 1,2-dichloroethane-d_4. Table S4.9 shows the percent recovery of each system-monitoring compound for each CLP analysis. With few exceptions, the recoveries of the surrogate spikes were within the acceptable ranges (identified in Table S4.9) specific to the surrogates. High recovery of multiple surrogates for several samples in SDG 605051 would not inhibit contaminant detection and does not warrant qualification of the data. For several samples in SDG 606057, recovery of the surrogate bromofluorobenzene was marginally low, while recovery of the other surrogates was good. The data are accepted without qualification.

Analytical results for groundwater samples analyzed at the AGEM Laboratory with EPA Method 524.2 are supported by the analytical results from ENVSY, obtained by using EPA CLP methodology. The verification organic results for the groundwater samples are summarized in Table S4.10. Agreement is good over the range of contaminant concentrations detected. Samples analyzed at the AGEM Laboratory with no detection of contamination were analyzed at the CLP laboratory with similar results. Because of the higher quantitation limit of 5.0 µg/L for the CLP analysis, very low concentrations detected at the AGEM Laboratory by purge-and-trap analysis were sometimes not detected by the CLP analysis. For samples with contaminant concentrations above the purge-and-trap quantitation limit of 1.0 µg/L, the RPD values for carbon tetrachloride ranged from 0% to 44.4%, while those for chloroform ranged from 1.8% to 36.4%. Significant concentrations of methylene chloride, indicative of biodegradation of carbon tetrachloride (via the intermediate compound chloroform), were confirmed by CLP analysis of sample NATI14-W-20666.

S4.5 Quality Control for Tritium Analyses of Groundwater Samples at the University of Miami Tritium Laboratory

Groundwater samples were collected for tritium analysis at the University of Miami Tritium Laboratory in Miami, Florida, to aid in geochemical characterization of the water-bearing zone. Tritium concentrations were reported on the basis of the U.S. National Institute of Standards and Technology tritium water standard #4926E, with a half-life of 12.32 years. Concentrations were reported in tritium units (TU), equivalent to 3.222 picocuries per kilogram of water. Because counting efficiency and background concentration are different for each

instrument, the reported concentrations were corrected for cosmic intensity and gas pressure. Typical efficiencies are equivalent to 1 count per minute (cpm) per 2.4 TU. Background is about 0.3 cpm, known to ±0.02 cpm. The tritium results for the groundwater samples are acceptable for evaluating the age of the groundwater.

S4.6 Quality Control for Particle Size Analyses of Soil Samples at HWS Laboratory

To aid in the evaluation of site lithology, soil samples were selected during coring activities for particle size analysis at the HWS Laboratory in Lincoln, Nebraska. The analysis was conducted in accordance with American Society for Testing and Materials method ASTM D422-63 (2002). The distribution of particle sizes larger than 75 µm was determined by sieving, while the distribution of smaller particle sizes was determined by a sedimentation process using a hydrometer.

TABLE S4.1 Quality control samples collected to monitor sample collection, handling, and analysis activities at Navarre, Kansas.

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Field blank									
QC	NAQCFB-W-20199	–	4/6/06	16:35	3711	Water	FB	06-BN; 33	Field blank of water used for equipment decontamination.
Equipment rinsates									
QC	NAQCRI-W-20187	–	4/5/06	17:15	3711	Water	RI	06-BN; 10	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAMW01-W-20186.
QC	NAQCRI-W-20189	–	4/6/06	9:15	3711	Water	RI	06-BN; 14	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAMW02-W-20188 and replicate NAQCDU-W-20200.
QC	NAQCRI-W-20191	–	4/6/06	10:30	3711	Water	RI	06-BN; 18	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAL2-W-20190.
QC	NAQCRI-W-20193	–	4/6/06	12:00	3711	Water	RI	06-BN; 22	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAMW03-W-20192.
QC	NAQCRI-W-20196	–	4/6/06	14:15	3711	Water	RI	06-BN; 26	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAMW04-W-20194.
QC	NAQCRI-W-20202	–	4/7/06	9:50	3713	Water	RI	06-BN; 30	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAT1-W-20201.
QC	NATI3-W-20299	–	4/7/06	10:36	3713	Water	RI	06-3; 13	Rinsate of decontaminated sampling bailer after collection of sample NATI3-W-20298.
QC	NAQCRI-W-20204	–	4/7/06	11:30	3713	Water	RI	06-BN; 38	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAKDHE1-W-20203.
QC	NAQCRI-W-20206	–	4/7/06	13:55	3713	Water	RI	06-BN; 42	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAKDHE2-W-20205.
QC	NAQCRI-W-20210	–	4/7/06	15:55	3518	Water	RI	06-BN; 46	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAL3-W-20209.
QC	NAQCRI-W-20212	–	4/8/06	10:10	3518	Water	RI	06-BN; 50	Rinsate of decontaminated Redi-Flo tubing after collection of sample NAL1-W-20211 and replicate NAQCDU-W-20213.
QC	NAQCRI-W-20216	–	4/8/06	12:10	3518	Water	RI	06-BN; 54	Rinsate of decontaminated Redi-Flo tubing after collection of sample NANW1-W-20215 and replicate NAQCDU-W-20225.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Equipment rinsates (cont.)									
QC	NATI4-W-20473	–	4/12/06	10:20	3685	Water	RI	06-1; 45	Rinsate of decontaminated sampling bailer after collection of sample NATI4-W-20472.
QC	NAQCRIN-W-20372	–	4/13/06	8:26	3520	Water	RI	06-3; 57	Rinsate of decontaminated sampling bailer after collection of sample NATI5-W-20371.
QC	NATI1-W-20345	–	4/13/06	20:07	3698	Water	RI	06-1; 73	Rinsate of decontaminated sampling bailer after collection of sample NATI1-W-20344.
QC	NAQCRIN-W-20386	–	4/14/06	10:00	3698	Water	RI	06-3; 93	Rinsate of decontaminated sampling bailer after collection of sample NATI3-W-20385.
QC	NATI5QC-W-20268	–	4/20/06	13:20	4706	Water	RI	06-1; 93	Rinsate of decontaminated sampling bailer after collection of sample NATI5-W-20267.
QC	NATI2-W-20280	–	4/21/06	13:50	4710	Water	RI	06-1; 139	Rinsate of decontaminated sampling bailer after collection of sample NATI2-W-20279.
QC	NATI6RIN-W-20352	–	4/22/06	13:38	4704	Water	RI	06-3; 149	Rinsate of decontaminated sampling bailer after collection of sample NATI6-W-20350 and replicate NATI6-W-20351.
QC	NATI10QC-W-20633	–	4/27/06	9:20	4719	Water	RI	06-1; 197	Rinsate of decontaminated sampling bailer after collection of sample NATI10-W-20632.
QC	NAQCRIN-W-20760	–	5/4/06	10:30	4141	Water	RI	06-5; 53	Rinsate of decontaminated sampling bailer after collection of sample NATI12-W-20758.
QC	NAQCRIN-W-20769	–	5/6/06	17:15	4730	Water	RI	06-4; 125	Rinsate of decontaminated sampling bailer after collection of sample NATI14-W-20768.
QC	NAQCRIN-W-20837	–	5/10/06	9:55	3521	Water	RI	06-5; 153	Rinsate of decontaminated sampling bailer after collection of sample NATI22-W-20836.
QC	NAQCRIN-W-20874	–	5/11/06	17:22	4147	Water	RI	06-6; 57	Rinsate of decontaminated sampling bailer after collection of sample NATI19-W-20872.
QC	NAQCRIN-W-20234	–	5/12/06	0:45	4148	Water	RI	06-6; 129	Rinsate of decontaminated sampling bailer after collection of sample NATI26-W-20233.
QC	NAQCRIN-W-20648	–	5/19/06	14:30	4761	Water	RI	06-7; 33	Rinsate of decontaminated sampling bailer after collection of sample NATI28-W-20254 and replicate NATI28-W-20255.
QC	NAQCRIN-W-20908	–	5/21/06	16:20	4156	Water	RI	06-7; 139	Rinsate of decontaminated sampling bailer after collection of sample NATI29-W-20907.
QC	NAQCRIN-W-20924	–	5/23/06	13:15	4158	Water	RI	06-8; 25	Rinsate of decontaminated sampling bailer after collection of sample NATI30-W-20920.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Trip blanks									
QC	NAQCTB-S-20197	–	4/6/06	15:10	4546	Soil	TB	06-BN; 33	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4545, 4546, and 4102.
QC	NAQCTB-W-20198	–	4/6/06	15:30	3711	Water	TB	06-BN; 33	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3711.
QC	NAQCTB-W-20207	–	4/7/06	14:20	3713	Water	TB	06-BN; 45	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3713.
QC	NAQCTB-S-20208	–	4/7/06	14:40	4113	Soil	TB	06-BN; 45	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4113 and 4104.
QC	NAQCTB-W-20214	–	4/8/06	8:45	3518	Water	TB	06-BN; 53	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3518.
QC	NATripBlank-S-20226	–	4/10/06		4108	Soil	TB	COC 4108	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4101 and 4108.
QC	NATripBlank-S-20227	–	4/10/06		4110	Soil	TB	COC 4110	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4109 and 4110.
QC	NAQCTB-W-11APR06	–	4/11/06	15:00	2478	Water	TB	COC	Trip blank sent to ENVSY for verification organic analysis with water samples listed on COC 2478.
QC	NAQCTB-S-20362	–	4/11/06		4107	Soil	TB	06-3; 28	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4105 and 4107.
QC	NAQCTB-W-20369	–	4/12/06	15:50	3685	Water	TB	06-3; 45	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3685.
QC	NAQCTB-S-20377	–	4/13/06	15:30	3519	Soil	TB	06-3; 73	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 3768 and 3519.
QC	NAQCTB-W-20378	–	4/13/06	15:35	3520	Water	TB	06-3; 77	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3520.
QC	NAQCTB-W-20389	–	4/14/06	14:00	3698	Water	TB	06-3; 105	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3698.
QC	NAQCTB-S-20387	–	4/14/06		3714	Soil	TB	06-3; 97	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 3714.
QC	NA-MEOHBLANK-18APR06	–	4/18/06	15:00	4023	Soil	TB	COC	Trip blank with sent to STL for verification organic analysis with soil samples listed on COC 4023.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Trip blanks (cont.)									
QC	NAQCTB-S-20486	–	4/20/06	16:00	4709	Soil	TB	06-3; 113	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 4709.
QC	NAQCTB-W-20487	–	4/20/06	16:00	4706	Water	TB	06-3; 117	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4706.
QC	NAQCTB-S-20346	–	4/21/06	15:00	4705	Soil	TB	06-3; 121	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 4705.
QC	NAQCTB-W-20347	–	4/21/06	16:30	4710	Water	TB	06-3; 135	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4710.
QC	NATI9QC-W-20588	–	4/22/06	9:22	4711	Water	TB	06-1; 165	Trip blank sent to the AGEM Laboratory with water samples listed on COCs 4701 and 4711.
QC	NAQCTB-S-20716	–	4/24/06	16:00	4702	Soil	TB	06-3; 169	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4702, 4712, and 4713.
QC	NAQCTB-W-20717	–	4/24/06	16:10	4714	Water	TB	06-3; 173	Trip blank sent to the AGEM Laboratory with water samples listed on COCs 4704 and 4714.
QC	NAQCTB-W-20518	–	4/26/06	16:50	4722	Water	TB	06-3; 185	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4722.
QC	NAQCTB-S-20519	–	4/26/06	16:50	4114	Soil	TB	06-3; 189	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4716, 4717, and 4114.
QC	NAQCTB-S-20529	–	4/27/06	15:01	4122	Soil	TB	06-3; 201	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 4122.
QC	NAQCTB-W-20726	–	4/27/06	15:30	4719	Water	TB	06-4; 17	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4719.
QC	NA-S-BLANK-02MAY06	–	5/2/06	11:15	4024	Soil	TB	COC	Trip blank sent to STL for verification organic analysis with soil samples listed on COC 4024.
QC	NAQCTB-W-20730	–	5/2/06	15:50	4124	Water	TB	06-5; 17	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4124.
QC	NAQCTB-W-20733	–	5/3/06	10:08	4126	Water	TB	06-5; 29	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4126.
QC	NAQCTB-S-20551	–	5/3/06	16:30	4129	Soil	TB	06-4; 25	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4118 and 4129.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Trip blanks (cont.)									
QC	NAQCTB-S-20552	–	5/3/06	16:30	4137	Soil	TB	06-4; 29	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 4137.
QC	NAQCTB-W-20759	–	5/4/06	10:19	4141	Water	TB	06-5; 49	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4141.
QC	NAQCTB-S-20559	–	5/4/06	14:26	4138	Soil	TB	06-4; 41	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4130 and 4138.
QC	NAQCTB-S-20582	–	5/5/06	16:00	4133	Soil	TB	06-4; 73	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 4133.
QC	NAQCTB-S-20583	–	5/5/06	17:00	4134	Soil	TB	06-4; 77	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4134 and 4135.
QC	NAQCTB-W-20584	–	5/5/06	17:00	4131	Water	TB	06-4; 81	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4131.
QC	NAQCTB-S-20767	–	5/6/06	8:00	4731	Soil	TB	06-4; 113	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4132 and 4731.
QC	NAQCTB-W-20694	–	5/6/06	14:00	4730	Water	TB	06-4; 101	Trip blank sent to the AGEM Laboratory with water samples listed on COCs 4730 and 4758.
QC	NA-MEOHBLANK-08MAY06	–	5/8/06	12:00	4025	Soil	TB	COC	Trip blank sent to STL for verification organic analysis with water samples listed on COC 4025.
QC	NAQCTB-S-20794	–	5/8/06	17:00	3765	Soil	TB	06-4; 169	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4729 and 3765.
QC	NAQCTB-S-20795	–	5/8/06	17:00	4728	Soil	TB	06-4; 173	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 3767 and 4728.
QC	NAQCTB-050706	–	5/8/06		4026	Water	TB	COC	Trip blank sent to ENVSY for verification organic analysis with water samples listed on COC 4026.
QC	NAQCTB-W-20824	–	5/9/06	10:39	4143	Water	TB	06-5; 93	Trip blank sent to the AGEM Laboratory with water samples listed on COCs 4143 and 4144.
QC	NAQCTB-W-20866	–	5/11/06	14:30	4146	Water	TB	06-6; 25	Trip blank sent to the AGEM Laboratory with water samples listed on COCs 4146 and 4149.
QC	NAQCTB-W-20873	–	5/11/06	17:15	4147	Water	TB	06-6; 53	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4147.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Trip blanks (cont.)									
QC	NAQCTB-W-20724	–	5/12/06	11:00	4148	Water	TB	06-6; 165	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4148.
QC	NAQCTB-S-20263	–	5/18/06	16:30	4723	Soil	TB	06-7; 13	Trip blank sent to the AGEM Laboratory with soil samples listed on COC 4723.
QC	NA-MEOHBLANK-19MAY06	–	5/19/06	9:00	4027	Soil	TB	COC	Trip blank sent to the STL for verification organic analysis with soil samples listed on COC 4027.
QC	NAQCTB-S-20681	–	5/19/06	14:00	4725	Soil	TB	06-7; 37	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4724 and 4725.
QC	NAQCTB-W-20682	–	5/19/06	14:00	4761	Water	TB	06-7; 41	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4761.
QC	NAQCTB-W-20702	–	5/20/06	10:00	4154	Water	TB	06-7; 81	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4154. Trip blank was broken during shipment and was not analyzed.
QC	NAQCTB-W-20650	–	5/20/06	17:00	4156	Water	TB	06-7; 93	Trip blank sent to the AGEM Laboratory with water samples listed on COCs 4156 and 4727.
QC	NAQCTB-S-20899	–	5/21/06	9:00	4155	Soil	TB	06-7; 97	Trip blank sent to the AGEM Laboratory with soil samples listed on COCs 4157 and 4155.
QC	NAQCTB-052306	–	5/23/06	10:00	4029	Water	TB	COC	Trip blank sent to ENVSY for verification organic analysis with water samples listed on COC 4029.
QC	NAQCTB-W-20925	–	5/23/06	16:45	4158	Water	TB	06-8; 29	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4158.
QC	NAQCTB-W-20714	–	5/24/06	14:00	3766	Water	TB	06-8; 41	Trip blank sent to the AGEM Laboratory with water samples listed on COC 3766.
QC	NAQCTB-052506	–	5/25/06	11:30	4030	Water	TB	COC	Trip blank sent to ENVSY for verification organic analysis with water samples listed on COC 4030.
QC	NAQCTB-W-20944	–	5/25/06	14:00	4127	Water	TB	06-8; 69	Trip blank sent to the AGEM Laboratory with water samples listed on COC 4127.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Replicate soil samples									
TI-1	NATI1-S-20307	31	4/8/06	13:55	4101	Soil	CPT	06-3; 16	Replicate of sample NATI1-S-20306.
TI-1	NATI1-S-20483	44	4/13/06	15:15	3768	Soil	CPT	06-1; 52	Replicate of sample NATI1-S-20482.
TI-2	NATI2-S-20412	16	4/5/06	17:40	4545	Soil	CPT	06-1; 4	Replicate of sample NATI2-S-20411.
TI-3	NATI3-S-20380	56.5	4/13/06	16:35	3714	Soil	CPT	06-3; 68	Replicate of sample NATI3-S-20379.
TI-4	NATI4-S-20318	34	4/9/06	9:40	4101	Soil	CPT	06-3; 20	Replicate of sample NATI4-S-20317.
TI-5	NATI5-S-20357	25	4/11/06	10:10	4105	Soil	CPT	06-3; 28	Replicate of sample NATI5-S-20356.
TI-6	NATI6-S-20403	50	4/20/06	17:52	4705	Soil	CPT	06-3; 108	Replicate of sample NATI6-S-20402.
TI-8	NATI8-S-20527	54.6	4/27/06	11:50	4122	Soil	CPT	06-3; 180	Replicate of sample NATI8-S-20526.
TI-9	NATI9-S-20596	25	4/22/06	15:50	4712	Soil	CPT	06-1; 172	Replicate of sample NATI9-S-20595.
TI-10	NATI10-S-20625	43	4/26/06	11:43	4716	Soil	CPT	06-1; 184	Replicate of sample NATI10-S-20624.
TI-11	NATI11-S-20504	56.5	4/25/06	8:08	4114	Soil	CPT	06-3; 156	Replicate of sample NATI11-S-20503.
TI-12	NATI12-S-20740	21	5/3/06	13:27	4137	Soil	CPT	06-5; 32	Replicate of sample NATI12-S-20739.
TI-18	NATI18-S-20679	41	5/19/06	11:05	4724	Soil	CPT	06-7; 8	Replicate of sample NATI18-S-20678.
TI-28	NATI28-S-20245	32.8	5/18/06	16:03	4724	Soil	CPT	06-7; 4	Replicate of sample NATI28-S-20244.
TI-29	NATI29-S-20898	62	5/21/06	8:20	4155	Soil	CPT	06-7; 64	Replicate of sample NATI29-S-20897.
Soil samples selected by the AGEM Laboratory for duplicate organic analyses									
TI-1	NATI1-S-20467DUP	23.8	4/11/06	10:34	4107	Soil	CPT	06-1; 24	Duplicate analysis.
TI-2	NATI2-S-20414DUP	24.5	4/6/06	9:00	4545	Soil	CPT	06-1; 4	Duplicate analysis.
TI-2	NATI2-S-20419DUP	38	4/6/06	10:22	4545	Soil	CPT	06-1; 4	Duplicate analysis.
TI-3	NATI3-S-20297DUP	25.5	4/7/06	8:26	4104	Soil	CPT	06-3; 5	Duplicate analysis.
TI-4	NATI4-S-20324DUP	61	4/9/06	17:52	4108	Soil	CPT	06-3; 20	Duplicate analysis.
TI-5	NATI5-S-20334DUP	17.2	4/11/06	9:03	4105	Soil	CPT	06-3; 28	Duplicate analysis.
TI-5	NATI5-S-20364DUP	49.5	4/11/06	16:16	3768	Soil	CPT	06-3; 28	Duplicate analysis.
TI-6	NATI6-S-20390DUP	2	4/20/06	8:34	4709	Soil	CPT	06-3; 108	Duplicate analysis.
TI-7	NATI7-S-20449DUP	29	4/9/06	15:36	4109	Soil	CPT	06-1; 20	Duplicate analysis.
TI-10	NATI10-S-20625	43	4/26/06	11:43	4716	Soil	CPT	06-1; 184	Replicate of sample NATI10-S-20624.
TI-10	NATI10-S-20636DUP	54	4/26/06	14:58	4717	Soil	CPT	06-1; 184	Duplicate analysis.
TI-11	NATI11-S-20495DUP	38	4/23/06	11:50	4702	Soil	CPT	06-3; 156	Duplicate analysis.
TI-11	NATI11-S-20496DUP	42	4/23/06	13:44	4702	Soil	CPT	06-3; 156	Duplicate analysis.
TI-14	NATI14-S-20671DUP	35.2	5/5/06	14:57	4135	Soil	CPT	06-4; 60	Duplicate analysis.
TI-14	NATI14-S-20674DUP	44.5	5/5/06	16:57	4132	Soil	CPT	06-4; 60	Duplicate analysis.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Soil samples selected by the AGEM Laboratory for duplicate organic analyses (cont.)									
TI-15	NATI15-S-20766DUP	60.8	5/6/06	10:40	4731	Soil	CPT	06-4; 56	Duplicate analysis.
TI-17	NATI17-S-20798DUP	9.1	5/7/06	10:40	4729	Soil	CPT	06-4; 138	Duplicate analysis.
TI-17	NATI17-S-20810DUP	49.25	5/7/06	16:37	4729	Soil	CPT	06-4; 138	Duplicate analysis.
TI-18	NATI18-S-20677DUP	37	5/19/06	10:27	4724	Soil	CPT	06-7; 8	Duplicate analysis.
TI-28	NATI28-S-20244DUP	32.8	5/18/06	16:03	4724	Soil	CPT	06-7; 4	Duplicate analysis.
TI-29	NATI29-S-20703DUP	13.5	5/19/06	9:50	4157	Soil	CPT	06-7; 64	Duplicate analysis.
TI-29	NATI29-S-20894DUP	53	5/19/06	17:47	4157	Soil	CPT	06-7; 64	Duplicate analysis.
CP1	NACP1-S-20329DUP	9.1	4/10/06	11:30	4105	Soil	CPT	06-3; 32	Duplicate analysis.
Replicate groundwater samples									
TI-1	NATI1-W-20343	38–43	4/13/06	19:20	3698	Water	CPT	06-1; 61	Replicate of sample NATI1-W-20342.
MW2	NAQCDU-W-20200	42.8–57.8	4/6/06	9:00	3711	Water	MW	06-BN; 14	Replicate of sample NAMW02-W-20188.
NW-1	NAQCDU-W-20225	40–50	4/8/06	11:48	3518	Water	MW	06-BN; 54	Replicate of sample NANW1-W-20215.
L-1	NAQCDU-W-20213	75–95	4/8/06	9:50	3518	Water	MW	06-BN; 50	Replicate of sample NAL1-W-20211.
TI-2	NATI2-W-20278	31–36	4/21/06	11:48	4710	Water	CPT	06-1; 129	Replicate of sample NATI2-W-20277.
TI-2	NATI2-W-20433	69–72	4/7/06	16:53	3518	Water	CPT	06-1; 13	Replicate of sample NATI2-W-20432.
TI-3	NATI3-W-20384	43–48	4/14/06	7:50	3698	Water	CPT	06-3; 85	Replicate of sample NATI3-W-20383.
TI-4	NATI4-W-20471	55–60	4/11/06	20:01	3685	Water	CPT	06-1; 37	Replicate of sample NATI4-W-20470.
TI-6	NATI6-W-20351	68–73	4/22/06	13:20	4704	Water	CPT	06-3; 145	Replicate of sample NATI6-W-20350.
TI-7	NATI7-W-20271	37–42	4/20/06	16:00	4706	Water	CPT	06-1; 105	Replicate of sample NATI7-W-20270.
TI-10	NATI10-W-20634	46–51	4/27/06	8:59	4719	Water	CPT	06-1; 201	Replicate of sample NATI10-W-20632.
TI-11	NATI11-W-20501	46.3–51.3	4/23/06	17:42	4704	Water	CPT	06-3; 165	Replicate of sample NATI11-W-20500.
TI-12	NATI12-W-20729	39.4–44.4	5/2/06	15:50	4124	Water	CPT	06-5; 13	Replicate of sample NATI12-W-20728.
TI-13	NATI13-W-20820	42–47	5/9/06	9:05	4143	Water	CPT	06-5; 77	Replicate of sample NATI13-W-20562 collected on 5/5/06.
TI-13	NATI13-W-20556	66.8–71.8	5/4/06	8:40	4141	Water	CPT	06-4; 37	Replicate of sample NATI13-W-20555.
TI-15	NATI15-W-20821	15–20	5/9/06	9:26	4143	Water	CPT	06-5; 81	Replicate of sample NATI15-W-20644 collected on 5/8/06.
TI-15	NATI15-W-20823	25–30	5/9/06	9:49	4143	Water	CPT	06-5; 89	Replicate of sample NATI15-W-20822.
TI-15	NATI15-W-20762	67.1–72.1	5/6/06	13:10	4730	Water	CPT	06-4; 89	Replicate of sample NATI15-W-20761.
TI-17	NATI17-W-20827	39–44	5/9/06	11:55	4143	Water	CPT	06-5; 105	Replicate of sample NATI17-W-20826.
TI-18	NATI18-W-20832	35–40	5/10/06	7:50	3521	Water	CPT	06-5; 125	Replicate of sample NATI18-W-20831.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Replicate groundwater samples (cont.)									
TI-18	NATI18-W-20710	56–61	5/21/06	18:30	4156	Water	CPT	06-7; 157	Replicate of sample NATI18-W-20709.
TI-19	NATI19-W-20871	46–51	5/11/06	14:15	4149	Water	CPT	06-6; 45	Replicate of sample NATI19-W-20870.
TI-20	NATI20-W-20923	72–77	5/23/06	16:00	4158	Water	CPT	06-8; 21	Replicate of sample NATI20-W-20922.
TI-21	NATI21-W-20879	60–65	5/11/06	21:20	4147	Water	CPT	06-6; 77	Replicate of sample NATI21-W-20880.
TI-22	NATI22-W-20835	39–44	5/10/06	8:10	3521	Water	CPT	06-5; 145	Replicate of sample NATI22-W-20834.
TI-22	NATI22-W-20847	68.2–73.2	5/10/06	11:28	3521	Water	CPT	06-2; 41	Replicate of sample NATI22-W-20846.
TI-23	NATI23-W-20857	60–65	5/10/06	17:54	4146	Water	CPT	06-5; 189	Replicate of sample NATI23-W-20856.
TI-24	NATI24-W-20839	39–44	5/10/06	11:25	3521	Water	CPT	06-5; 161	Replicate of sample NATI24-W-20838.
TI-25	NATI25-W-20876	39–44	5/11/06	18:10	4147	Water	CPT	06-6; 65	Replicate of sample NATI25-W-20875.
TI-26	NATI26-W-20230	53–58	5/11/06	22:55	4148	Water	CPT	06-6; 113	Replicate of sample NATI26-W-20229.
TI-27	NATI27-W-20701	49–54	5/20/06	9:20	4154	Water	CPT	06-7; 77	Replicate of sample NATI27-W-20700.
TI-28	NATI28-W-20255	58–63	5/19/06	14:10	4761	Water	CPT	06-7; 25	Replicate of sample NATI28-W-20254.
TI-29	NATI29-W-20901	39–44	5/21/06	9:15	4156	Water	CPT	06-7; 105	Replicate of sample NATI29-W-20900.
TI-30	NATI30-W-20919	75–80	5/23/06	11:05	4158	Water	CPT	06-7; 201	Replicate of sample NATI30-W-20917.
TI-31	NATI31-W-20936	70.7–75.7	5/24/06	18:40	4127	Water	CPT	06-8; 49	Replicate of sample NATI31-W-20715.
Groundwater samples selected by the AGEM Laboratory for duplicate organic analyses									
MW3	NAMW03-W-20192	44–59	4/6/06	11:48	3711	Water	06-BN; 22	06-BN; 22	Depth to water from TOC = 31.58 ft BGL. Depth of well = 58 ft BGL. Sample collected after purging of approximately 14 gal.
L-1	NAL1-W-20211	75–95	4/8/06	9:50	3518	Water	06-BN; 50	06-BN; 50	Depth to water from TOC = 29.34 ft BGL. Depth of well = 95.35 ft BGL. Sample collected after purging of 130 gal.
TI-2	NATI2-W-20282	66–70	4/21/06	15:30	4710	Water	06-1; 149	06-1; 149	Could not penetrate below 70 ft BGL. Heavily sedimented, high turbidity.
TI-2	NATI2-W-20432	69–72	4/7/06	15:25	3713	Water	06-1; 9	06-1; 9	Water at 47 ft BGL in riser pipe. High turbidity
TI-4	NATI4-W-20472	61–66	4/12/06	10:10	3685	Water	06-1; 41	06-1; 41	No description recorded.
TI-6	NATI6-W-20353	38–43	4/22/06	15:04	4704	Water	06-3; 153	06-3; 153	South of southwest corner of dry fertilizer building. Slightly turbid water.
TI-7	NATI7-W-20271	37–42	4/20/06	16:00	4706	Water	06-1; 105	06-1; 105	Replicate of sample NATI7-W-20270.
TI-10	NATI10-W-20637	59–64	4/27/06	13:10	4719	Water	06-2; 9	06-2; 9	Slow water recovery initially, but 30 ft of water after 1 hr.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Groundwater samples selected by the AGEM Laboratory for duplicate organic analyses (cont.)									
TI-10	NATI10-W-20610	66–71	4/25/06	14:20	4722	Water	06-1; 181	06-1; 181	Water slow entering borehole; ample water after a few minutes.
TI-11	NATI11-W-20639	65.9–70.9	4/27/06	17:13	4719	Water	06-2; 17	06-2; 17	Abundant water present.
TI-12	NATI12-W-20727	34–39	5/2/06	15:30	4124	Water	06-5; 5	06-5; 5	Southeast corner of former CCC/USDA property. Slightly turbid. Nitrate sample collected for Co-op.
TI-14	NATI14-W-20666	67.4–72.4	5/5/06	9:30	4026	Water	06-4; 53	06-4; 53	West side of liquid fertilizer containment. Slightly turbid.
TI-16	NATI16-W-20791	39–44	5/8/06	16:50	4144	Water	06-4; 161	06-4; 161	Very turbid water.
TI-17	NATI17-W-20829	53–58	5/9/06	13:13	4143	Water	06-5; 113	06-5; 113	Very silty.
TI-18	NATI18-W-20710	56–61	5/21/06	18:30	4156	Water	06-7; 157	06-7; 157	Replicate of sample NATI18-W-20709.
TI-19	NATI19-W-20868	53–58	5/11/06	15:14	4146	Water	06-6; 33	06-6; 33	Fairly silty.
TI-21	NATI21-W-20885	32–37	5/11/06	22:07	4147	Water	06-6; 101	06-6; 101	Very little water, silty. No field parameters measured.
TI-21	NATI21-W-20880	60–65	5/11/06	21:15	4147	Water	06-6; 81	06-6; 81	Northeast corner of feed mill building. Very silty/cloudy sample. Abundant water.
TI-24	NATI24-W-20843	60–65	5/10/06	16:10	4145	Water	06-5; 177	06-5; 177	Abundant water, very silty.
TI-24	NATI24-W-20845	69.4–74.4	5/10/06	17:20	4146	Water	06-5; 181	06-5; 181	Silty water, abundant.
TI-26	NATI26-W-20719	66–71	5/12/06	1:39	4148	Water	06-6; 145	06-6; 145	Cloudy sample.
TI-28	NATI28-W-20849	37–42	5/20/06	7:48	4154	Water	06-7; 53	06-7; 53	Slightly turbid.
TI-28	NATI28-W-20683	51–56	5/19/06	16:21	4761	Water	06-7; 45	06-7; 45	Slightly turbid.
TI-30	NATI30-W-20917	75–80	5/23/06	11:05	4158	Water	06-7; 193	06-7; 193	Slightly turbid.
TI-30	NATI30-W-20712	83.5–88.5	5/24/06	7:15	4030	Water	06-8; 33	06-8; 33	No description recorded.
Soil samples selected for verification organic analysis at Severn-Trent Laboratories									
TI-1	NATI1-S-20303	9	4/7/06	14:31	4023	Soil	CPT	06-3;16	No description recorded.
TI-1	NATI1-S-20476	32.7	4/13/06	11:50	4023	Soil	CPT	06-1;52	No description recorded.
TI-1	NATI1-S-20340	59.5	4/13/06	18:20	4023	Soil	CPT	06-1;52	No description recorded.
TI-2	NATI2-S-20408	9	4/5/06	17:10	4023	Soil	CPT	06-1;4	No description recorded.
TI-2	NATI2-S-20413	20.5	4/5/06	18:22	4023	Soil	CPT	06-1;4	No description recorded.
TI-3	NATI3-S-20295	22	4/6/06	15:55	4023	Soil	CPT	06-3;5	No description recorded.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Soil samples selected for verification organic analysis at Severn-Trent Laboratories (cont.)									
TI-4	NATI4-S-20308	2	4/8/06	15:30	4023	Soil	CPT	06-3;20	Vertical soil profile at TI-4 location, west of the dry fertilizer storage building along west side of road.
TI-4	NATI4-S-20311	14.5	4/8/06	17:03	4023	Soil	CPT	06-3;20	No description recorded.
TI-5	NATI5-S-20358	30	4/11/06	10:44	4023	Soil	CPT	06-3;28	No description recorded.
TI-6	NATI6-S-20390	2	4/20/06	8:34	4024	Soil	CPT	06-3;108	Vertical soil profile at TI-6 location south, of dry fertilizer storage building.
TI-7	NATI7-S-20453	41	4/9/06	17:38	4023	Soil	CPT	06-1;20	No description recorded.
TI-7	NATI7-S-20454	43	4/9/06	17:38	4023	Soil	CPT	06-1;20	No description recorded.
TI-8	NATI8-S-20511	16.5	4/26/06	13:28	4024	Soil	CPT	06-3;180	No description recorded.
TI-8	NATI8-S-20527	54.6	4/27/06	11:50	4024	Soil	CPT	06-3;180	Replicate of sample NATI8-S-20526.
TI-9	NATI9-S-20603	50	4/23/06	10:15	4024	Soil	CPT	06-1;172	No description recorded.
TI-9	NATI9-S-20607	65	4/23/06	16:51	4024	Soil	CPT	06-1;172	No description recorded.
TI-10	NATI10-S-20620	29.5	4/26/06	10:00	4024	Soil	CPT	06-1;184	No description recorded.
TI-10	NATI10-S-20636	54	4/26/06	14:58	4025	Soil	CPT	06-1;184	No description recorded.
TI-11	NATI11-S-20496	42	4/23/06	13:44	4024	Soil	CPT	06-3;156	No description recorded.
TI-12	NATI12-S-20735	5.5	5/3/06	10:50	4025	Soil	CPT	06-5;32	No description recorded.
TI-12	NATI12-S-20750	48.5	5/3/06	17:59	4025	Soil	CPT	06-5;32	No description recorded.
TI-13	NATI13-S-20538	15.5	5/2/06	17:50	4025	Soil	CPT	06-4;20	No description recorded.
TI-13	NATI13-S-20541	27	5/3/06	11:40	4025	Soil	CPT	06-4;20	No description recorded.
TI-13	NATI13-S-20543	34.5	5/3/06	13:42	4025	Soil	CPT	06-4;20	No description recorded.
TI-13	NATI13-S-20545	38	5/3/06	14:17	4025	Soil	CPT	06-4;20	No description recorded.
TI-14	NATI14-S-20664	20.8	5/5/06	13:25	4025	Soil	CPT	06-4;60	No description recorded.
TI-14	NATI14-S-20673	40.5	5/5/06	16:18	4027	Soil	CPT	06-4;60	No description recorded.
TI-14	NATI14-S-20689	57.8	5/6/06	8:20	4027	Soil	CPT	06-4;60	No description recorded.
TI-15	NATI15-S-20575	26.1	5/5/06	14:28	4025	Soil	CPT	06-4;56	No description recorded.
TI-15	NATI15-S-20578	34.6	5/5/06	15:45	4027	Soil	CPT	06-4;56	No description recorded.
TI-16	NATI16-S-20773	9.25	5/7/06	10:02	4027	Soil	CPT	06-4;134	No description recorded.
TI-16	NATI16-S-20783	36.5	5/7/06	15:28	4027	Soil	CPT	06-4;134	No description recorded.
TI-17	NATI17-S-20808	42	5/7/06	15:20	4027	Soil	CPT	06-4;138	No description recorded.
CP1	NACP1-S-20330	14.8	4/10/06	13:30	4023	Soil	CPT	06-3;32	No description recorded.

TABLE S4.1 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	Time	COC[a]	Medium	Sample Type[b]	Log; Page[c]	Sample Description
Groundwater samples selected for verification organic analysis by Envirosystems, Inc.									
L-2	NAL2-W-20190	80–90	4/6/06	10:15	2478	Water	MW	06-BN;18	Depth to water from TOC = 29.49 ft. Depth of well = 90.91 ft below TOC. Sample collected after purging of 31 gal.
TI-2	NATI2-W-20433	69–72	4/7/06	16:53	2478	Water	CPT	06-1;13	Replicate of sample NATI2-W-20432.
TI-3	NATI3-W-20298	32.2–37.2	4/7/06	10:22	2478	Water	CPT	06-3;9	First aliquot for volatile organic analyses clear; second aliquot turbid.
TI-4	NATI4-W-20325	35–40	4/10/06	9:35	2478	Water	CPT	06-3;25	West of northwest corner of dry fertilizer building. Very turbid.
TI-13	NATI13-W-20563	35–40	5/5/06	10:00	4026	Water	CPT	06-4;69	Very turbid water.
TI-13	NATI13-W-20562	42–47	5/5/06	9:30	4026	Water	CPT	06-4;65	Southwest corner of dry fertilizer building. Turbid water.
TI-13	NATI13-W-20560	48–53	5/4/06	17:20	4026	Water	CPT	06-4;45	No description recorded.
TI-13	NATI13-W-20561	54–59	5/5/06	8:26	4026	Water	CPT	06-4;49	Slightly turbid.
TI-14	NATI14-W-20666	67.4–72.4	5/5/06	9:30	4026	Water	CPT	06-4;53	West side of liquid fertilizer containment. Slightly turbid.
TI-18	NATI18-W-20655	30–35	5/21/06	15:05	4029	Water	CPT	06-7;125	Slightly turbid. Conductivity not recorded.
TI-18	NATI18-W-20706	42–47	5/21/06	16:05	4029	Water	CPT	06-7;145	South side of liquid fertilizer containment. Very silty, turbid.
TI-18	NATI18-W-20709	56–61	5/21/06	18:30	4029	Water	CPT	06-7;153	Very silty, turbid.
TI-20	NATI20-W-20913	35–40	5/22/06	7:30	4030	Water	CPT	06-7;177	Slightly turbid.
TI-27	NATI27-W-20700	49–54	5/20/06	9:20	4029	Water	CPT	06-7;73	Very turbid.
TI-27	NATI27-W-20905	56–61	5/21/06	11:20	4029	Water	CPT	06-7;121	Field measurements not recorded.
TI-28	NATI28-W-20904	25–30	5/21/06	12:30	4029	Water	CPT	06-7;117	In ditch east of liquid fertilizer containment. Slightly turbid.
TI-29	NATI29-W-20916	25–30	5/23/06	14:50	4030	Water	CPT	06-7;189	Very silty.
TI-29	NATI29-W-20901	39–44	5/21/06	9:15	4029	Water	CPT	06-7;105	Replicate of sample NATI29-W-20900.
TI-30	NATI30-W-20920	39–44	5/23/06	12:30	4030	Water	CPT	06-8;9	Northwest corner of J. Rock wheatfield, directly west of dry fertilizer building. Water turbid. Field parameters not measured.
TI-30	NATI30-W-20919	75–80	5/23/06	11:05	4030	Water	CPT	06-7;201	Replicate of sample NATI30-W-20917.
TI-30	NATI30-W-20712	83. 5–88.5	5/24/06	7:15	4030	Water	CPT	06-8;33	No description recorded.

TABLE S4.1 (Cont.)

[a] Chain-of-custody form number.

[b] Sample types: CPT, cone penetrometer; MW, monitoring well; RI, rinsate; TB, trip blank.

[c] Location of record in logbook; on file at Argonne.

TABLE S4.2 Results of carbon tetrachloride and chloroform analyses on quality control samples collected to monitor sample collection and handling activities during the 2006 investigation at Navarre, Kansas.

						Concentration (µg/L in water; µgkg in soil)		
Sample	Sample Date	Medium	Analysis Date	EPA Analytical Method[a]	Analytical Laboratory	Carbon Tetra-chloride	Chloroform	Quantitation Limit
Field blank								
NAQCFB-W-20199	4/6/06	Water	4/7/06	524.2	AGEM	ND[b]	ND	1.0
Equipment rinsates								
NAQCRI-W-20187	4/5/06	Water	4/7/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20189	4/6/06	Water	4/7/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20191	4/6/06	Water	4/7/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20193	4/6/06	Water	4/7/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20196	4/6/06	Water	4/7/06	524.2	AGEM	0.8 J[c]	ND	1.0
NAQCRI-W-20202	4/7/06	Water	4/8/06	524.2	AGEM	0.3 J	ND	1.0
NAQCRI-W-20204	4/7/06	Water	4/8/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20206	4/7/06	Water	4/8/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20210	4/7/06	Water	4/11/06	524.2	AGEM	ND	ND	1.0
NATI3-W-20299	4/7/06	Water	4/8/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20212	4/8/06	Water	4/11/06	524.2	AGEM	ND	ND	1.0
NAQCRI-W-20216	4/8/06	Water	4/11/06	524.2	AGEM	ND	ND	1.0
NATI4-W-20473	4/12/06	Water	4/13/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20372	4/13/06	Water	4/14/06	524.2	AGEM	ND	ND	1.0
NATI1-W-20345	4/13/06	Water	4/18/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20386	4/14/06	Water	4/18/06	524.2	AGEM	ND	ND	1.0
NATI5QC-W-20268	4/20/06	Water	4/21/06	524.2	AGEM	ND	ND	1.0
NATI2-W-20280	4/21/06	Water	4/25/06	524.2	AGEM	ND	ND	1.0
NATI6RIN-W-20352	4/22/06	Water	4/25/06	524.2	AGEM	ND	ND	1.0
NATI10QC-W-20633	4/27/06	Water	4/28/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20760	5/4/06	Water	5/8/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20769	5/6/06	Water	5/12/06	524.2	AGEM	0.1 J	ND	1.0
NAQCRIN-W-20837	5/10/06	Water	5/12/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20874	5/11/06	Water	5/13/06	524.2	AGEM	ND	0.1 J	1.0
NAQCRIN-W-20234	5/12/06	Water	5/13/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20648	5/19/06	Water	5/20/06	524.2	AGEM	ND	ND	1.0
NAQCRIN-W-20908	5/21/06	Water	5/23/06	524.2	AGEM	ND	0.2 J	1.0
NAQCRIN-W-20924	5/23/06	Water	5/24/06	524.2	AGEM	ND	0.2 J	1.0
Trip blanks								
NAQCTB-W-20198	4/6/06	Water	4/7/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20207	4/7/06	Water	4/8/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20214	4/8/06	Water	4/11/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20369	4/12/06	Water	4/13/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20378	4/13/06	Water	4/14/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20389	4/14/06	Water	4/17/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20487	4/20/06	Water	4/21/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20347	4/21/06	Water	4/22/06	524.2	AGEM	ND	0.1 J	1.0
NATI9QC-W-20588	4/22/06	Water	4/25/06	524.2	AGEM	ND	ND	1.0

TABLE S4.2 (Cont.)

Sample	Sample Date	Medium	Analysis Date	EPA Analytical Method[a]	Analytical Laboratory	Concentration (µg/L in water; µgkg in soil) Carbon Tetra-chloride	Chloroform	Quantitation Limit
Trip blanks (cont.)								
NAQCTB-W-20717	4/24/06	Water	4/25/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20518	4/26/06	Water	4/27/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20726	4/27/06	Water	4/28/06	524.2	AGEM	ND	0.2 J	1.0
NAQCTB-W-20730	5/2/06	Water	5/3/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20733	5/3/06	Water	5/4/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20759	5/4/06	Water	5/5/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20584	5/5/06	Water	5/5/06	524.2	AGEM	ND	0.5 J	1.0
NAQCTB-W-20694	5/6/06	Water	5/10/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20824	5/9/06	Water	5/10/06	524.2	AGEM	ND	0.1 J	1.0
NAQCTB-W-20866	5/11/06	Water	5/12/06	524.2	AGEM	ND	0.1 J	1.0
NAQCTB-W-20873	5/11/06	Water	5/13/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20724	5/12/06	Water	5/15/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20682	5/19/06	Water	5/20/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20702	5/20/06	Water[d]	–	–	–	–	–	–
NAQCTB-W-20650	5/20/06	Water	5/23/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20925	5/23/06	Water	5/24/06	524.2	AGEM	ND	0.7 J	1.0
NAQCTB-W-20714	5/24/06	Water	5/25/06	524.2	AGEM	ND	ND	1.0
NAQCTB-W-20944	5/25/06	Water	5/26/06	524.2	AGEM	ND	0.3 J	1.0
NAQCTB-S-20197	4/6/06	Soil	4/11/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20208	4/7/06	Soil	4/11/06	8260B	AGEM	ND	ND	10.0
NATripBlank-S-20226	4/10/06	Soil	4/21/06	8260B	AGEM	ND	ND	10.0
NATripBlank-S-20227	4/10/06	Soil	4/21/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20362	4/11/06	Soil	4/21/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20377	4/13/06	Soil	4/21/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20387	4/14/06	Soil	4/20/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20486	4/20/06	Soil	4/26/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20346	4/21/06	Soil	4/26/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20716	4/24/06	Soil	5/1/06	8260B	AGEM	2.1 J	2.7 J	10.0
NAQCTB-S-20519	4/26/06	Soil	5/2/06	8260B	AGEM	8.9 J	4.2 J	10.0
NAQCTB-S-20529	4/27/06	Soil	5/2/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20551	5/3/06	Soil	5/8/06	8260B	AGEM	3.4 J	2.3 J	10.0
NAQCTB-S-20552	5/3/06	Soil	5/5/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20559	5/4/06	Soil	5/8/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20582	5/5/06	Soil	5/18/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20583	5/5/06	Soil	5/15/06	8260B	AGEM	8 J	4.9 J	10.0
NAQCTB-S-20767	5/6/06	Soil	5/17/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20794	5/8/06	Soil	5/17/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20795	5/8/06	Soil	5/17/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20263	5/18/06	Soil	5/22/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20681	5/19/06	Soil	5/25/06	8260B	AGEM	ND	ND	10.0
NAQCTB-S-20899	5/21/06	Soil	5/25/06	8260B	AGEM	ND	ND	10.0
NAQCTB-W-11APR06	4/11/06	Water	4/20/06	8260	ENVSY	ND	ND	5.0
NAQCTB-050706	5/8/06	Water	05/13/06	8260	ENVSY	ND	ND	5.0

TABLE S4.2 (Cont.)

Sample	Sample Date	Medium	Analysis Date	EPA Analytical Method[a]	Analytical Laboratory	Concentration (µg/L in water; µgkg in soil) Carbon Tetra-chloride	Chloroform	Quantitation Limit
Trip blanks (cont.)								
NAQCTB-052306	5/23/06	Water	05/24/06	8260	ENVSY	1.5 J	ND	5.0
NAQCTB-052506	5/25/06	Water	05/31/06	8260	ENVSY	ND	ND	5.0
NA-MEOHBLANK-18APR06	4/18/06	Soil	4/28/06	8260B	STL	ND	ND	10.0
NA-S-BLANK-02MAY06	5/2/06	Soil	5/10/06	8260B	STL	ND	ND	10.0
NA-MEOHBLANK-08MAY06	5/8/06	Soil	5/19/06	8260B	STL	ND	ND	10.0
NA-MEOHBLANK-19MAY06	5/19/06	Soil	5/24/06	8260B	STL	ND	3.2 J	10.0

[a] Analytical methods: EPA Method 524.2 and EPA Method 8260B.

[b] Not detected at the method detection limit.

[c] Qualifier J indicates an estimated concentration below the indicated method quantitation limit.

[d] Vial was broken; sample not analyzed.

TABLE S4.3 Shipment information showing potential for cross-contamination of some groundwater samples from location TI-27.

Location	Sample	Depth (ft below TOC)	Sample Date	COC Number	Shipment Date	Sample Type[a]	Concentration (µg/L) Carbon Tetrachloride	Chloroform	Methylene Chloride
Analysis of trip blank indicates no evidence of cross-contamination in shipment on May 19, 2006.									
TI-27	NATI27-W-20680	25–30	5/19/06	4761	5/19/06	CPT	1.0	0.7 J[b]	ND[c]
TI-27	NATI27-W-20684	35–40	5/19/06	4761	5/19/06	CPT	ND	1.6	ND
TI-28	NATI28-W-20683	51–56	5/19/06	4761	5/19/06	CPT	12	2.7	ND
TI-28	NATI28-W-20254	58–63	5/19/06	4761	5/19/06	CPT	15	8.9	ND
TI-28	NATI28-W-20255	58–63	5/19/06	4761	5/19/06	CPT	26	10	ND
TI-28	NATI28-W-20647	63–68	5/19/06	4761	5/19/06	CPT	ND	ND	ND
QC	NAQCTB-W-20682	–	5/19/06	4761	5/19/06	TB	ND	ND	ND
Trip blank was broken: potential for cross-contamination in shipment on May 20, 2006.									
TI-27	NATI27-W-20704	30–35	5/20/06	4154	5/20/06	CPT	1.1	2.3	0.2 J
TI-27	NATI27-W-20699	42–47	5/20/06	4154	5/20/06	CPT	7.9	3.5	ND
TI-27	NATI27-W-20700	49–54	5/20/06	4154	5/20/06	CPT	2.0	0.7 J	ND
TI-27	NATI27-W-20701	49–54	5/20/06	4154	5/20/06	CPT	1.8	0.6 J	ND
TI-28	NATI28-W-20851	32–37	5/20/06	4154	5/20/06	CPT	3,104	646	6.3
TI-28	NATI28-W-20849	37–42	5/20/06	4154	5/20/06	CPT	97	91	1.0
TI-28	NATI28-W-20850	44–49	5/20/06	4154	5/20/06	CPT	88	14	ND
QC	NAQCTB-W-20702	–	5/20/06	4154	5/20/06	TB[d]	–	–	–
Analysis of trip blank indicates no evidence of cross-contamination in shipment on May 22, 2006.									
TI-27	NATI27-W-20905	56–61	5/21/06	4156	5/22/06	CPT	ND	0.6 J	ND
TI-27	NATI27-W-20649	66.25–71.25	5/20/06	4156	5/22/06	CPT	ND	ND	ND
TI-28	NATI28-W-20904	25–30	5/21/06	4156	5/22/06	CPT	2,692	238	1.3
QC	NAQCTB-W-20650	–	5/20/06	4156	5/22/06	TB	ND	ND	ND

[a] Sample types: CPT, cone penetrometer; TB, trip blank.

[b] Qualifier J indicates an estimated concentration below the AGEM Laboratory method quantitation limit of 1.0 µg/L.

[c] ND, not detected at a method detection limit of 0.1 µg/L.

[d] Vial was broken during shipment; sample not analyzed.

TABLE S4.4 Calibration and surrogate recovery data for organic analyses of soil and water samples at the AGEM Laboratory.

	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
Sample	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-7, analysis date April 7, 2006									
20-ppb standard	99	101	100	20.4	0.5	22.58	3.0	20	0.0
Laboratory blank	100	100	100						
NAMW02-W-20188	114	109	105						
NAMW01-W-20186	92	101	104						
NAMW04-W-20194	114	117	115	Outside calibration range for carbon tetrachloride at dilution factor = 1 (DF1). Analysis at dilution below in this SDG					
NAL2-W-20190	96	101	99						
NAMW03-W-20192	104	108	106						
NAMW03-W-20192DUP	80	84	85						
NAQCDU-W-20200	97	99	97						
NAQCFB-W-20199	81	83	82						
NAQCTB-W-20198	95	96	93						
NAQCRI-W-20196	81	84	82						
NAQCRI-W-20189	78[d]	82	84	Accepted.					
NAQCRI-W-20191	81	83	80						
NAQCRI-W-20193	83	86	87						
NAQCRI-W-20187	78[d]	80	80	Accepted.					
NAMW04-W-20194	94	90	93	Analysis at DF10 for carbon tetrachloride and chloroform.					
SDG 06-4-8a, analysis date April 8, 2006									
20-ppb standard	99	93	92	18.27	2.3	23.44	4.0	20	0.0
Laboratory blank	110	113	115						
NATI3-W-20298	96	87	84						
NATI2-W-20432	104	110	110						
NATI2-W-20432DUP	103	109	110						
NAT1-W-20201	104	109	107						
NAKDHE2-W-20205	112	113	109						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-8a, analysis date April 8, 2006 (cont.)									
NAKDHE1-W-20203	101	105	101						
NATI3-W-20299	116	114	108						
NAQCTB-W-20207	99	94	90						
NAQCRI-W-20204	108	106	104						
NAQCRI-W-20206	85	86	84						
NAQCRI-W-20202	107	103	98						
SDG 06-4-8b, analysis date April 8, 2006									
20-ppb standard	80	109	103	17.98	2.7	16.8	4.3	17.59	3.2
Laboratory blank	100	100	100						
NATI2-S-20416	112	106	111						
NATI2-S-20417	100	68[d]	111	Reanalyzed in SDG 06-4-10a.					
NATI2-S-20418	96	58[d]	112	Reanalyzed in SDG 06-4-10a.					
NATI2-S-20419	95	111	117						
NATI2-S-20420	92	111	109						
NATI2-S-20421	91	64[d]	116	Reanalyzed in SDG 06-4-10a.					
NATI2-S-20424	90	110	109						
NATI2-S-20419DUP	87	105	104						
NATI3-S-20290	85	99	99						
NATI3-S-20291	85	102	100						
NATI3-S-20289	34[d]	37[d]	40[d]	Reanalyzed in SDG 06-4-10b.					
NATI3-S-20293	73[d]	79[d]	82	Reanalyzed in SDG 06-4-10b.					
NATI2-S-20409	84	93	95						
NATI2-S-20425	87	55[d]	97	Reanalyzed in SDG 06-4-10b.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-10a, analysis date April 10, 2006									
20-ppb standard	100	100	100	16.84	4.3	18.47	2.0	13.24	10.2
Laboratory blank	100	100	100						
NATI2-S-20415	104	109	109						
NATI3-S-20286	106	106	98						
NATI2-S-20408	94	85	87						
NATI3-S-20294	90	91	94						
NATI2-S-20422	87	92	93						
NATI2-S-20412	102	105	105						
NATI2-S-20411	95	97	98						
NATI3-S-20292	101	101	101						
NATI3-S-20287	94	100	100						
NATI2-S-20414	94	96	92						
NATI2-S-20414DUP	115	112	102						
Methanol blank	100	100	100						
NATI2-S-20417	108	113	112						
NATI2-S-20418	100	105	104						
NATI2-S-20421	117	116	115						
SDG 06-4-10b, analysis date April 10, 2006									
20-ppb standard	100	100	100	17.29	3.6	17.76	3.0	17.12	3.9
Laboratory blank	100	100	100						
NATI3-S-20289	107	110	112						
NATI3-S-20293	111	111	105						
NATI2-S-20425	95	95	89						
NATI2-S-20407	97	98	94						
NATI2-S-20423	97	94	91						
NATI3-S-20295	103	100	89						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-10b, analysis date April 10, 2006 (cont.)									
NATI2-S-20406	110	111	107						
NATI2-S-20410	111	102	96						
SDG 06-4-11a, analysis date April 11, 2006									
20-ppb standard	100	107	103	17.46	3.4	18.11	2.5	17.48	3.4
Laboratory blank	100	100	100						
NATI2-W-20433	99	138[d]	127[d]	Reanalyzed in SDG 06-4-12a.					
NAL3-W-20209	93	100	104						
NACOOP3-W-20218	100	107	100	Outside calibration range for carbon tetrachloride at DF1. Analysis at dilution below in this SDG. Methylene chloride and tetrachloroethylene reported.					
NAL1-W-20211	97	103	98						
NAL1-W-20211DUP	98	104	103						
NANW1-W-20215	96	104	101						
NANW2-W-20219	100	107	99	Outside calibration range for carbon tetrachloride at zero dilution. Analysis at dilution below in this SDG. Methylene chloride and tetrachloroethylene reported.					
NACOOP1-W-20217	95	101	96						
NATI4-W-20325	101	122[d]	115	Reanalyzed in SDG 06-4-12a.					
NAQCDU-W-20213	91	95	96						
NAQCDU-W-20225	89	98	93						
NAQCRI-W-20212	93	108	94						
NAQCRI-W-20210	92	104	99						
NAQCTB-W-20214	93	103	94						
NAQCRI-W-20216	93	108	94						
Laboratory blank 2	90	105	101						
NACOOP3-W-20218	90	109	103	Analysis at DF5 for carbon tetrachloride and chloroform.					
NANW2-W-20219	89	106	104	Analysis at DF10 for carbon tetrachloride and chloroform.					
NANW2-W-20219DUP	92	113	107	Duplicate analysis at DF10.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-11b, analysis date April 11, 2006									
20-ppb standard	100	100	100	21.58	1.9	23.89	4.4	19.83	0.2
Laboratory blank	105	103	104						
NATI2-S-20428	82	85	88						
NATI1-S-20303	104	107	109						
NATI2-S-20413	83	89	95						
NAQCTB-S-20197	101	96	97						
NATI2-S-20426	88	91	99						
NATI3-S-20297	95	96	101						
NATI3-S-20297DUP	86	85	88						
NATI1-S-20302	85	88	96						
NATI1-S-20301	86	90	97						
NATI2-S-20429	92	96	101						
NATI2-S-20427	85	92	98						
NATI3-S-20296	83	86	91						
NAQCTB-S-20208	99	98	79[d]	Accepted.					
NATI1-S-20300	86	90	97						
SDG 06-4-12a, analysis date April 12, 2006									
20-ppb standard	89	117	86	19.73	0.3	18.85	1.5	17.82	2.9
Laboratory blank	100	100	100						
NATI2-W-20433	87	120	113						
NATI4-W-20325	100	116	112						
SDG 06-4-12b, analysis date April 12, 2006									
20-ppb standard	87	98	99	20.11	0.1	24.63	5.2	20	0.0
Methanol blank	90[d]	91	94						
NATI1-S-20306	171[d]	150[d]	130[d]	Reanalyzed in SDG 06-4-14b.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-12b, analysis date April 12, 2006 (cont.)									
NATI1-S-20305	98	79[d]	70[d]	Reanalyzed in SDG 06-4-14b.					
NATI1-S-20307	93	88	89						
NATI1-S-20304	87	86	88						
NATI4-S-20321	130[d]	122[d]	118	Reanalyzed in SDG 06-4-14b.					
NATI4-S-20310	108	101	96						
Methanol blank 2	110	109	106						
NATI4-S-20318	94	94	93						
NATI4-S-20314	105	101	98						
NATI4-S-20317	111	104	102						
NATI4-S-20308	115	106	102						
NATI4-S-20322	93	90	90						
NATI4-S-20316	116	105	103						
NATI4-S-20312	122[d]	115	115	Reanalyzed in SDG 06-4-14a.					
SDG 06-4-13, analysis date April 13, 2006									
20-ppb standard	100	105	110	17.21	3.7	17.91	2.8	20	0.0
Laboratory blank	113	111	109						
NATI4-W-20471	88	91	93						
NATI4-W-20474	117	119	120						
NATI4-W-20469	100	105	106						
NATI5-W-20368	124[d]	127[d]	127[d]	Reanalyzed in SDG 06-4-17.					
NATI4-W-20470	89	94	96						
NATI4-W-20472	98	106	108						
NATI4-W-20472DUP	91	94	93						
NATI4-W-20473	99	98	96						
NAQCTB-W-20369	89	85	83						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-14a, analysis date April 14, 2006									
20-ppb standard	100	100	100	18.73	1.6	19.66	0.4	20.22	0.3
Laboratory blank	100	100	100						
NATI4-S-20312	111	100	98						
NATI4-S-20323	98	108	104						
NATI4-S-20309	100	100	100						
NATI4-S-20313	111	116	96						
NATI4-S-20319	95	102	101						
NATI4-S-20324	108	104	92						
NATI4-S-20324DUP	96	83	92						
NATI4-S-20315	93	112	78[d]	Reanalyzed in SDG 06-4-18b.					
NATI4-S-20311	90	95	105						
NATI4-S-20320	93	90	93						
NATI7-S-20446	88	87	89						
NATI7-S-20451	88	91	91						
NATI7-S-20445	102	100	85						
NATI7-S-20448	82	88	92						
NATI7-S-20457	85	88	87						
Methanol blank2	100	100	100						
NATI7-S-20455	98	103	102						
NATI7-S-20456	83	90	97						
NATI7-S-20452	99	98	89						
NATI7-S-20454	86	94	105						
NATI7-S-20442	83	90	97						
NATI1-S-20464	103	97	91						
NATI1-S-20467	81	89	90						
NATI1-S-20467DUP	98	88	84						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-14b, analysis date April 14, 2006									
20-ppb standard	114	110	106	17.28	3.6	17.33	3.6	39.67	16.5
Laboratory blank	93	94	98						
NATI5-W-20373	101	102	102						
NATI5-W-20371	102	103	99						
NAQCRIN-W-20372	106	103	98						
NAQCTB-W-20378	102	104	103						
Laboratory blank 2	97	87	83						
Methanol blank	100	100	100						
NATI1-S-20306	102	96	86						
NATI1-S-20305	108	107	93						
NATI4-S-20321	108	99	86						
SDG 06-4-17, analysis date April 17, 2006									
20-ppb standard	98	87	98	16.57	4.7	16.22	5.2	16.89	4.2
Laboratory blank	101	92	86						
NATI5-W-20368	104	103	97						
NATI1-W-20344	98	98	113	Outside calibration range for carbon tetrachloride at DF1. Analysis at DF5 in 06-4-18a. Methylene chloride reported.					
NATI1-W-20341	97	99	105	Outside calibration range for carbon tetrachloride at DF1. Analysis at DF5 in 06-4-18a. Methylene chloride and tetrachloroethylene reported.					
NATI1-W-20343	100	114	126[d]	Outside calibration range for carbon tetrachloride at DF1. Analysis at DF5 in 06-4-18a. Methylene chloride reported.					
NATI3-W-20383	94	101	99						
NATI1-W-20342	99	108	114	Outside calibration range for carbon tetrachloride at DF1. Analysis at DF5 in 06-4-18a. Methylene chloride and tetrachloroethylene reported.					
NAQCTB-W-20389	91	83	80						
NATI1-W-20266	92	118	101						
NATI3-W-20385	95	99	96						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-17, analysis date April 17, 2006 (cont.)									
NATI4-W-20388	96	101	90						
NATI3-W-20384	84	114	89						
SDG 06-4-18a, analysis date April 18, 2006									
20-ppb standard	95	96	90	20.49	0.6	22.94	3.4	20	0.0
Laboratory blank	100	100	100						
NAQCRIN-W-20386	131[d]	125[d]	115	Accepted.					
NATI1-W-20345	103	103	98						
NATI1-W-20344	91	98	96	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI1-W-20341	109	115	111	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI1-W-20343	88	89	88	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI1-W-20342	89	91	87	Analysis at DF5 for carbon tetrachloride and chloroform.					
SDG 06-4-18b, analysis date April 18, 2006									
20-ppb standard	100	100	100	19.46	0.7	17.88	2.8	18.35	2.2
Methanol blank	100	100	100						
NATI4-S-20315	109	101	93						
NATI1-S-20465	109	120	104						
NATI8-S-20462	109	156[d]	123[d]	Reanalyzed in SDG 06-4-19.					
NATI7-S-20439	113	119	119						
NATI7-S-20438	103	110	102						
NATI7-S-20441	99	96	91						
NATI7-S-20444	100	96	93						
NATI7-S-20449	100	100	100						
NATI7-S-20449DUP	105	109	108						
Methanol blank 2	90	88	88						
NATI7-S-20443	101	94	90						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-18b, analysis date April 18, 2006 (cont.)									
NATI7-S-20437	92	96	97						
NATI7-S-20447	99	92	83						
NATI7-S-20440	94	79[d]	88	Reanalyzed in SDG 06-4-19.					
NATI5-S-20363	94	93	112						
NATI7-S-20459	89	99	93						
NATI7-S-20453	93	108	95						
NATI7-S-20436	99	96	95						
NATI7-S-20458	88	96	91						
NATI7-S-20450	100	92	87						
SDG 06-4-19, analysis date April 19, 2006									
20-ppb standard	100	100	100	17.47	3.4	16.45	4.9	17.29	3.6
Laboratory blank	100	100	100						
NATripBlank-S-20227	103	90	145[d]	Reanalyzed in SDG 06-4-21b.					
NATripBlank-S-20226	103	173[d]	145[d]	Reanalyzed in SDG 06-4-21b.					
NATI5-S-20360	100	118	114						
NATI5-S-20361	96	105	108						
NATI5-S-20335	103	105	108						
NATI5-S-20357	100	65[d]	105	Reanalyzed in SDG 06-4-20a.					
NATI5-S-20334	97	100	97						
NATI5-S-20334DUP	103	103	107						
Methanol blank	100	100	100						
NATI8-S-20462	105	97	82						
NATI7-S-20440	93	91	83						
NACP1-S-20331	103	93	90						
NATI5-S-20332	97	101	99						
NATI5-S-20359	92	92	102						
NATI5-S-20356	98	91	107						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-19, analysis date April 19, 2006 (cont.)									
NATI5-S-20358	99	104	120						
NATI5-S-20327	105	98	112						
NATI5-S-20326	89	95	98						
NACP1-S-20328	99	93	105						
NACP1-S-20330	97	92	115						
NACP1-S-20329	89	95	104						
NACP1-S-20329DUP	95	87	106						
SDG 06-4-20a, analysis date April 20, 2006									
20-ppb standard	100	100	100	20.89	1.1	20.01	0.0	18.5	1.9
Laboratory blank	105	82	88						
NATripBlank-S-20227	113	167[d]	154[d]	Reanalyzed in SDG 06-4-21b.					
NATripBlank-S-20226	114	173[d]	147[d]	Reanalyzed in SDG 06-4-21b.					
NATI5-S-20357	113	100	120						
NAQCTB-S-20362	119	96	146[d]	Reanalyzed in SDG 06-4-21b.					
NATI5-S-20333	124[d]	123[d]	102	Reanalyzed in SDG 06-4-21b.					
NATI1-S-20479	116	104	93						
NATI1-S-20482	106	100	101						
NATI1-S-20481	100	100	100						
NATI5-S-20364	108	89	96						
NATI5-S-20364DUP	103	100	102						
NATI5-S-20366	117	99	88						
NATI1-S-20485	117	101	89						
NATI1-S-20484	104	98	95						
NATI3-S-20376	111	102	86						
NATI1-S-20483	111	120	91						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-20b, analysis date April 20, 2006									
20-ppb standard	98	98	94	16.68	4.5	17.91	2.8	20	0.0
Laboratory blank	101	90	80						
NATI1-S-20476	120	115	100						
NATI1-S-20475	107	106	100						
NATI5-S-20367	114	114	104						
NATI1-S-20478	109	109	106						
NATI1-S-20480	115	113	103						
NATI1-S-20477	99	101	98						
NATI5-S-20365	108	106	97						
NAQCTB-S-20377	94	88	78[d]	Reanalyzed in SDG 06-4-21b.					
NATI3-S-20375	100	96	89						
NATI3-S-20380	106	109	103						
NATI1-S-20339	100	99	91						
NATI3-S-20379	116	114	108						
NAQCTB-S-20387	96	96	87						
NATI1-S-20336	114	109	98						
SDG 06-4-21a, analysis date April 21, 2006									
20-ppb standard	100	100	100	18.92	1.4	19.8	0.3	21.74	2.1
Laboratory blank	81	93	97						
NATI5-W-20267	100	100	100						
NATI7-W-20269	100	102	110						
NATI7-W-20270	97	103	117						
NATI7-W-20271	99	98	111						
NATI7-W-20271DUP	96	97	114						
NAQCTB-W-20487	95	88	93						
NATI5QC-W-20268	96	99	97						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-21b, analysis date April 21, 2006									
20-ppb standard	100	100	100	19.86	0.2	20.75	0.9	20	0.0
Laboratory blank	100	100	100						
NATI3-S-20381	107	115	113						
NATI3-S-20382	97	106	115						
NATI1-S-20337	58[d]	66[d]	73[d]	Reanalyzed in SDG 06-4-26b.					
NATI1-S-20340	94	103	109						
NAQCTB-S-20377	109	112	99						
NAQCTB-S-20362	97	102	102						
NATripBlank-S-20226	100	105	106						
NATripBlank-S-20227	109	111	113						
NATI5-S-20333	99	106	114						
SDG 06-4-22, analysis date April 22, 2006									
20-ppb standard	108	116	113	17	4.1	19.77	0.3	20	0.0
Laboratory blank	84	89	91						
NATI7-W-20272	87	90	90						
NATI7-W-20273	84	89	91						
NATI7-W-20274	116	111	109						
NATI2-W-20276	82	87	88						
NATI2-W-20277	93	96	96						
NATI2-W-20279	94	94	92						
NATI2-W-20282	99	91	87						
NATI2-W-20282DUP	91	94	93						
NATI2-W-20278	131[d]	129[d]	116	Reanalyzed in SDG 06-4-25.					
NAQCTB-W-20347	86	87	86						
NATI2-W-20281	58[d]	84	84	Reanalyzed in SDG 06-4-25.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-25, analysis date April 25, 2006									
20-ppb standard	100	100	100	17.76	3.0	18.89	1.4	28.6	8.8
Laboratory blank	92	94	95						
NATI9-W-20609	62[d]	59[d]	59[d]	Reanalyzed in SDG 06-4-26a.					
NATI9-W-20589	123[d]	125[d]	126[d]	Reanalyzed in SDG 06-4-26a.					
NATI6-W-20350	125[d]	124[d]	122[d]	Reanalyzed in SDG 06-4-26a also with high recovery. Contaminants of interest were not detected in either analysis. Accept this analysis.					
NATI6-W-20351	102	104	108						
NATI11-W-20500	96	104	107						
NATI6-W-20353	100	105	111						
NATI6-W-20353DUP	93	99	101						
NATI9-W-20586	115	119	120						
NATI9-W-20587	112	116	116						
NATI6-W-20348	122[d]	122[d]	117	Reanalyzed in SDG 06-4-27a.					
NATI6-W-20349	92	88	88						
NATI2-W-20281	97	95	94						
NATI2-W-20278	102	105	107						
NATI6RIN-W-20352	82	81	80						
NAQCTB-W-20717	95	97	98						
NATI11-W-20501	94	100	100						
NATI2-W-20280	102	98	95						
NATI9QC-W-20588	83	86	88						
SDG 06-4-26a, analysis date April 26, 2006									
20-ppb standard	100	100	100	21.59	1.9	22.28	2.7	22.02	2.4
Laboratory blank	100	100	100						
NATI9-W-20589	80	82	86						
NATI9-W-20609	101	91	93						
NATI6-W-20348	155[d]	171[d]	168[d]	Reanalyzed in SDG 06-4-27a.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-26a, analysis date April 26, 2006 (cont.)									
NATI6-W-20350	154[d]	162[d]	167[d]	Second analysis with high recovery. First analysis in SDG 06-4-25. Contaminants of interest were not detected in either analysis. Accept first analysis.					
Methanol blank	105	102	110						
NATI6-S-20402	95	197[d]	101	Reanalyzed in SDG 06-5-1.					
NATI9-S-20592	87	93	91						
NATI11-S-20355	88	89	95						
NATI11-S-20490	98	186[d]	111	Reanalyzed in SDG 06-5-1.					
NATI11-S-20488	85	95	92						
NATI11-S-20493	85	96	94						
NATI9-S-20600	85	107	97						
Methanol blank 2	94	98	90						
NATI9-S-20593	94	91	95						
NATI9-S-20602	87	91	82						
NATI11-S-20354	81	86	86						
NATI11-S-20496	84	82	86						
NATI11-S-20496DUP	84	86	85						
NATI9-S-20605	86	165[d]	84	Reanalyzed in SDG 06-5-1.					
SDG 06-4-26b, analysis date April 26, 2006									
20-ppb standard	100	100	100	20.68	0.8	22.87	3.3	20	0.0
Methanol blank	85	84	90						
NATI1-S-20337	115	116	97						
NATI6-S-20398	96	102	107						
NATI6-S-20392	113	128[d]	140[d]	Reanalyzed in SDG 06-5-1.					
NATI6-S-20395	98	105	111						
NATI6-S-20396	99	108	114						
NATI6-S-20397	96	96	99						
NATI6-S-20394	102	104	105						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-26b, analysis date April 26, 2006 (cont.)									
NATI6-S-20391	82	90	96						
NATI6-S-20393	87	90	94						
NATI6-S-20399	91	103	112						
NATI6-S-20390	77[d]	89	100	Reanalyzed in SDG 06-5-3.					
NATI6-S-20390DUP	89	101	109						
NATI6-S-20401	83	93	94						
NATI6-S-20404	95	107	114						
NATI6-S-20403	88	96	99						
NAQCTB-S-20486	97	104	88						
NATI6-S-20405	81	88	92						
NAQCTB-S-20346	81	86	68[d]	Accepted.					
NATI6-S-20400	82	91	99						
SDG 06-4-27a, analysis date April 27, 2006									
20-ppb standard	100	100	100	21	1.2	20.06	0.1	22.12	2.5
Laboratory blank	92	80	87						
NATI11-W-20517	109	88	90						
NATI11-W-20506	136[d]	117	120	Accepted.					
NATI10-W-20610	101	102	114						
NATI10-W-20610DUP	98	92	100						
NAQCTB-W-20518	96	87	87						
NATI6-W-20348	108	120	113						
Methanol blank	100	100	100						
NATI6-S-20392	91	83	69[d]	Reanalyzed in SDG 06-5-1.					
NATI6-S-20402	96	76[d]	81	Reanalyzed in SDG 06-5-1.					
NATI9-S-20605	88	72[d]	74[d]	Reanalyzed in SDG 06-5-1.					
NATI11-S-20494	99	49[d]	110	Reanalyzed in SDG 06-5-1.					
NATI9-S-20604	112	125[d]	153[d]	Reanalyzed in SDG 06-5-1.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-27a, analysis date April 27, 2006 (cont.)									
NATI11-S-20489	157[d]	152[d]	139[d]	Reanalyzed in SDG 06-5-1.					
NATI9-S-20594	141[d]	116	112	Reanalyzed in SDG 06-5-1.					
NATI9-S-20595	130 [d]	57[d]	102	Reanalyzed in SDG 06-4-27b.					
NATI9-S-20283	114	53[d]	91	Reanalyzed in SDG 06-5-1.					
NATI9-S-20591	101	61[d]	77[d]	Reanalyzed in SDG 06-5-1.					
SDG 06-4-27b, analysis date April 27, 2006									
20-ppb standard	102	105	111	18.52	1.9	19.7	0.4	20	0.0
Methanol blank	110	106	109						
NATI11-S-20490	86	83	51[d]	Reanalyzed in SDG 06-5-1.					
NATI9-S-20590	103	107	108						
NATI11-S-20492	107	103	95						
NATI9-S-20595	111	115	112						
NATI9-S-20596	83	87	88						
NATI9-S-20597	101	101	92						
NATI9-S-20608	97	100	93						
NATI9-S-20598	92	93	82						
NATI11-S-20498	88	102	100						
NATI9-S-20607	87	89	87						
NATI11-S-20491	98	105	98						
NATI9-S-20285	90	87	80						
SDG 06-4-28a, analysis date April 28, 2006									
20-ppb standard	91	83	89	18.01	2.6	18.44	2.0	20	0.0
Laboratory blank	95	88	91						
NATI10-W-20631	98	116	114						
NATI10-W-20632	105	112	109						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-4-28a, analysis date April 28, 2006 (cont.)									
NATI10-W-20635	114	110	118						
NATI10-W-20634	103	111	108						
NATI11-W-20523	105	96	101						
NATI11-W-20638	110	105	108						
NATI10-W-20637	93	88	96						
NATI10-W-20637DUP	101	95	99						
NATI10QC-W-20633	100	95	101						
NAQCTB-W-20726	99	89	89						
SDG 06-4-28b, analysis date April 28, 2006									
20-ppb standard	100	100	100	18.76	1.6	18.55	1.9	19.6	0.5
Methanol blank	100	100	100						
NATI9-S-20603	108	108	107						
NATI9-S-20284	109	195[d]	151[d]	Reanalyzed in SDG 06-5-1.					
NATI11-S-20497	111	113	108						
NAQCTB-S-20716	133[d]	215[d]	159[d]	Reanalyzed in SDG 06-5-1.					
NATI9-S-20606	107	114	117						
NATI9-S-20601	109	107	104						
NATI9-S-20599	105	112	98						
Methanol blank 2	97	102	100						
NATI8-S-20508	92	86	93						
NATI11-S-20502	112	103	102						
NATI8-S-20510	109	113	113						
NATI8-S-20515	109	117	120						
Methanol blank 3	100	100	100						
NATI8-S-20509	98	94	90						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-1, analysis date May 1, 2006									
20-ppb standard	100	100	100	20.61	0.8	22.1	2.5	20	0.0
Methanol blank	100	100	100						
NATI9-S-20284	91	100	105						
NAQCTB-S-20716	99	102	90						
NATI11-S-20490	88	91	102						
NATI6-S-20392	98	103	116						
NATI6-S-20402	96	99	115						
NATI9-S-20605	86	91	102						
NATI11-S-20489	99	99	97						
NATI9-S-20604	103	104	105						
NATI9-S-20283	94	97	115						
NATI9-S-20591	109	107	105						
NATI9-S-20594	94	97	115						
NATI11-S-20495	107	106	94						
NATI11-S-20495DUP	89	93	108						
Methanol blank 2	100	100	100						
NATI11-S-20494	83	81	80						
NATI11-S-20504	93	104	108						
NATI11-S-20499	87	97	114						
NATI8-S-20514	92	97	101						
NATI8-S-20507	100	107	112						
NATI8-S-20511	88	96	113						
NATI8-S-20513	97	106	108						
SDG 06-5-2a, analysis date May 2, 2006									
20-ppb standard	100	100	100	21.88	2.2	22.88	3.4	21.73	2.1
Laboratory blank	100	100	100						
NATI8-W-20531	101	93	98						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-2a, analysis date May 2, 2006 (cont.)									
NATI8-W-20641	99	108	110						
NATI8-W-20530	98	87	100						
NATI12-W-20640	94	84	100						
NATI11-W-20639	97	81	91						
NATI11-W-20639DUP	95	82	92						
Methanol blank	100	100	100						
NATI8-S-20512	105	102	105						
NATI11-S-20505	103	102	109						
NATI10-S-20611	97	101	111						
NATI10-S-20612	97	95	107						
NATI10-S-20618	92	115	102						
NATI11-S-20503	96	118	103						
NATI10-S-20615	101	119	108						
Methanol blank 2	99	81	84						
NATI10-S-20620	96	67[d]	76[d]	Reanalyzed in SDG 06-5-3.					
NATI10-S-20614	91	59[d]	69[d]	Reanalyzed in SDG 06-5-3.					
NATI10-S-20617	110	110	107						
NATI10-S-20613	101	109	107						
NATI10-S-20621	111	93	104						
NATI10-S-20622	103	89	91						
SDG 06-5-2b, analysis date May 2, 2006									
20-ppb standard	85	101	119	21.19	1.4	19.36	0.8	19.66	0.4
Laboratory blank	100	100	100						
NATI10-S-20627	87	90	79.2[d]	Accepted.					
NATI10-S-20624	84	89	96						
NATI10-S-20616	85	119	105						
NATI10-S-20626	85	90	96						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-2b, analysis date May 2, 2006 (cont.)									
NAQCTB-S-20519	98	101	90						
NATI10-S-20636	87	91	95						
NATI10-S-20636DUP	80	87	89						
NATI10-S-20619	96	94	98						
NATI10-S-20623	99	100	103						
NATI10-S-20628	91	91	95						
NATI8-S-20522	100	104	105						
NATI8-S-20521	91	94	98						
NAQCTB-S-20529	95	97	94						
NATI8-S-20516	92	101	106						
SDG 06-5-3, analysis date May 3, 2006									
20-ppb standard	104	98	94	16.57	4.7	19.81	0.2	27.37	7.8
Laboratory blank	93	88	87						
NATI12-W-20728	101	102	102						
NATI12-W-20729	107	112	113						
NATI12-W-20727	100	99	102						
NATI12-W-20727DUP	102	105	108						
NAQCTB-W-20730	94	92	92						
Methanol blank	91	85	94						
NATI8-S-20528	111	107	98						
NATI8-S-20526	103	105	109						
NATI10-S-20625	119	115	115						
NATI10-S-20625DUP	108	108	108						
NATI8-S-20524	113	117	119						
NATI8-S-20520	111	111	112						
NATI8-S-20525	112	114	116						
NATI8-S-20527	109	106	109						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-3, analysis date May 3, 2006 (cont.)									
NATI6-S-20390	110	113	112						
NATI10-S-20620	100	104	106						
NATI10-S-20614	109	113	115						
SDG 06-5-4, analysis date May 4, 2006									
20-ppb standard	92	101	103	17.65	3.1	17.14	3.9	19.07	1.2
Laboratory blank	90	99	102						
NATI8-W-20731	86	100	102						
NATI8-W-20732	85	102	105						
NAQCTB-W-20733	96	106	107						
SDG 06-5-5a, analysis date May 5, 2006									
20-ppb standard	100	100	100	21.58	1.9	21.43	1.7	21.35	1.6
Laboratory blank	93	89	88						
NATI13-W-20556	106	111	112						
NATI13-W-20555	107	113	118						
NATI12-W-20757	103	101	104						
NATI12-W-20758	109	122[d]	122[d]	Reanalyzed in SDG 06-5-8a.					
NAQCRIN-W-20760	107	135[d]	138[d]	Reanalyzed in SDG 06-5-8a.					
NAQCTB-W-20759	115	111	115						
Laboratory blank 2	106	103	103						
Methanol blank	98	92	86						
NATI12-S-20737	114	105	110						
NATI12-S-20744	109	104	107						
NATI12-S-20741	111	100	103						
NATI12-S-20739	108	94	102						
NATI12-S-20746	106	100	103						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-5a, analysis date May 5, 2006 (cont.)									
NATI12-S-20743	102	108	114						
NATI12-S-20740	104	100	104						
NATI12-S-20736	101	94	98						
NATI12-S-20742	101	93	91						
NATI12-S-20735	100	97	99						
NATI12-S-20745	100	96	104						
NATI12-S-20738	98	99	100						
NATI12-S-20734	98	98	132[d]	Reanalyzed in SDG 06-5-8b.					
SDG 06-5-5b, analysis date May 5, 2006									
20-ppb standard	99	98	95	20.11	0.1	19.95	0.1	21.57	1.9
Laboratory blank	108	108	109						
NATI13-W-20560	91	95	94						
NATI13-W-20561	103	107	104						
NATI13-W-20562	92	96	94	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-8a. Methylene chloride and tetrachloroethylene reported.					
NATI13-W-20563	96	97	95	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-8a. Methylene chloride reported.					
NATI14-W-20666	89	92	90	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-8a. Methylene chloride reported.					
NATI14-W-20666DUP	89	92	90	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-8a. Methylene chloride reported.					
NAQCTB-W-20584	103	100	97						
Laboratory blank 2	100	100	100						
Methanol blank	112	98	83						
NATI13-S-20549	103	92	84						
NATI13-S-20557	120	106	93						
NATI12-S-20749	105	95	88						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-5b, analysis date May 5, 2006 (cont.)									
NATI12-S-20748	119	107	97						
NATI12-S-20753	105	97	88						
SDG 06-5-5c, analysis date May 5, 2006									
20-ppb standard	100	100	100	19.78	0.3	18.78	1.6	25.19	5.7
Laboratory blank	98	94	89						
NATI13-S-20541	102	104	109						
NATI13-S-20542	99	103	109						
NATI13-S-20543	102	106	111						
NATI13-S-20544	93	95	106						
NATI13-S-20545	114	111	119						
NATI13-S-20545DUP	85	92	103						
NATI13-S-20546	92	99	109						
NATI13-S-20533	89	93	102						
NATI13-S-20547	101	105	114						
Methanol blank	80	80	87						
NATI13-S-20532	90	97	110						
NATI13-S-20540	88	92	99						
NATI13-S-20535	103	105	114						
NATI13-S-20538	90	94	100						
NATI13-S-20534	99	105	113						
NATI10-S-20630	82	89	95						
NATI10-S-20629	83	94	109						
NATI13-S-20548	90	99	104						
NATI13-S-20539	90	98	105						
NATI13-S-20537	99	107	114						
NATI13-S-20536	86	95	106						
NAQCTB-S-20552	94	103	108						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-6, analysis date May 6, 2006									
20-ppb standard	100	100	100	19.56	0.6	21.5	1.8	22.35	2.8
Laboratory blank	100	100	100						
NATI12-S-20754	126[d]	48[d]	132[d]	Accepted.					
NATI12-S-20755	110	114	118						
NATI13-S-20558	100	105	105						
NATI12-S-20750	93	97	99						
NATI12-S-20756	86	99	100						
NATI12-S-20752	93	111	114						
NATI13-S-20553	91	133[d]	107	Reanalyzed in SDG 06-5-8b.					
Methanol blank	100	100	100						
NATI13-S-20550	90	94	101						
NATI12-S-20751	87	101	108						
NATI12-S-20747	85	197[d]	101	Accepted.					
NATI13-S-20554	87	97	96						
SDG 06-5-8a, analysis date May 8, 2006									
20-ppb standard	84	97	83	17.64	3.1	19.87	0.2	19.37	0.8
Laboratory blank	100	100	100						
NATI13-W-20562	103	107	112						
NATI13-W-20563	102	90	89						
NATI14-W-20666	109	92	96						
NATI14-W-20666DUP	91	81	86						
NATI12-W-20758	108	106	109						
NAQCRIN-W-20760	97	91	95						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-8b, analysis date May 8, 2006									
20-ppb standard	88	95	111	19.15	1.1	22.23	2.6	25.3	5.8
Laboratory blank	100	100	100						
NATI13-S-20553	99	94	86						
NAQCTB-S-20551	88	83	82						
NAQCTB-S-20559	84	91	96						
NATI14-S-20671	82	83	84						
Methanol blank	100	100	100						
NATI14-S-20672	91	95	102						
NATI14-S-20659	104	103	102						
NATI14-S-20670	102	102	100						
NATI14-S-20660	110	110	105						
NATI14-S-20668	120	113	103						
NATI14-S-20665	79[d]	80	80	Accepted.					
NATI14-S-20658	87	85	86						
NATI14-S-20657	96	95	92						
NATI12-S-20734	101	100	96						
NATI14-S-20663	110	116	118						
NATI14-S-20664	106	106	107						
NATI14-S-20662	107	102	101						
NATI14-S-20669	103	97	96						
NATI14-S-20661	99	95	98						
SDG 06-5-10a, analysis date May 10, 2006									
20-ppb standard	100	100	100	18.21	2.3	17.22	3.7	20	0.0
Laboratory blank	100	100	100						
NATI15-W-20761	96	88	83						
NATI14-W-20768	91	93	93	Outside calibration for carbon tetrachloride at zero dilution. Analyzed at dilution in SDG 06-5-12b. Tetrachloroethylene reported.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-10a, analysis date May 10, 2006 (cont.)									
NATI15-W-20764	106	100	96						
NATI14-W-20695	84	87	87	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-12b. Tetrachloroethylene reported.					
NATI16-W-20790	101	102	103						
NATI17-W-20793	98	98	101						
NATI15-W-20762	95	93	93						
NATI15-W-20822	84	83	86						
NATI16-W-20817	92	90	89	Outside calibration for carbon tetrachloride and chloroform at DF1. Analyzed at dilution in SDG 06-5-12b. Tetrachloroethylene reported.					
NATI17-W-20827	92	93	91						
NATI17-W-20826	95	91	87						
NATI16-W-20791	94	91	89	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-12b. Tetrachloroethylene reported.					
NATI17-W-20814	90	87	86						
NATI13-W-20819	87	86	88						
NATI15-W-20821	98	96	95						
NATI15-W-20823	73[d]	74[d]	74[d]	Reanalyzed in SDG 06-5-13a.					
NATI17-W-20829	77[d]	80	82	Reanalyzed in SDG 06-5-12b.					
NATI17-W-20829DUP	97	93	90						
NAQCTB-W-20824	99	94	100						
NAQCTB-W-20694	70[d]	67[d]	75[d]	Accepted.					
NAQCRIN-W-20769	0[d]	141[d]	118[d]	Reanalyzed in SDG 06-5-12a.					
SDG 06-5-10b, analysis date May 10, 2006									
20-ppb standard	104	119	95	20.85	1.0	21.69	2.0	21.23	1.5
Laboratory blank	100	100	100						
NATI16-W-20789	79[d]	77[d]	67[d]	Reanalyzed in SDG 06-5-13a.					
NATI14-W-20692	101	115	110						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-10b, analysis date May 10, 2006 (cont.)									
NATI14-W-20693	92	111	119	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-12b. Methylene chloride and tetrachloroethylene reported.					
NATI15-W-20644	101	101	100						
NATI15-W-20765	96	96	93						
NATI15-W-20763	91	99	99						
NATI14-W-20691	93	91	86	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-12b. Methylene chloride and tetrachloroethylene reported.					
NATI13-W-20820	106	96	91	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-12b. Methylene chloride reported.					
NATI17-W-20828	95	87	84						
NATI17-W-20825	91	87	83						
NATI16-W-20818	99	86	83	Outside calibration for carbon tetrachloride and chloroform at zero dilution. Analyzed at dilution in SDG 06-5-12a. Tetrachloroethylene reported.					
NATI16-W-20816	102	101	105						
SDG 06-5-12a, analysis date May 12, 2006									
20-ppb standard	92	106	82	22.33	2.8	23.22	3.7	23.53	4.1
Laboratory blank	100	100	100						
NATI22-W-20830	94	81	82						
NATI18-W-20831	118	111	118	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-13a. Methylene chloride and tetrachloroethylene reported.					
NATI22-W-20833	104	97	104						
NATI19-W-20868	87	89	94						
NATI19-W-20868DUP	94	99	106						
NATI23-W-20862	99	108	116						
NATI19-W-20871	92	95	98						
NATI24-W-20860	92	92	94						
NATI23-W-20856	88	89	96						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-12a, analysis date May 12, 2006 (cont.)									
NATI19-W-20870	92	92	94						
NATI23-W-20861	95	95	94						
NATI23-W-20859	89	94	101						
NATI24-W-20858	93	96	96						
Laboratory blank 2	90	84	86						
NATI19-W-20864	80	87	89						
NATI19-W-20869	65[d]	78[d]	81	Reanalyzed in SDG 06-5-13a.					
NATI23-W-20865	96	101	100						
NATI19-W-20863	83	80	81						
NATI23-W-20857	87	88	94						
NATI24-W-20845	90	94	91						
NATI24-W-20845DUP	87	88	85						
NAQCTB-W-20866	92	95	93						
NAQCRIN-W-20837	90	93	88						
NAQCRIN-W-20769	87	89	87						
Laboratory blank 3	90	91	90						
NATI16-W-20818	91	88	84	Analysis at DF20 for carbon tetrachloride, chloroform, and methylene chloride.					
SDG 06-5-12b, analysis date May 12, 2006									
20-ppb standard	100	100	100	22.64	3.1	21.32	1.6	24.24	4.8
Laboratory blank	96	90	89						
NATI22-W-20834	102	96	96						
NATI22-W-20836	113	109	109	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-13a. Methylene chloride reported.					
NATI24-W-20838	107	117	111						
NATI22-W-20846	105	109	110						
NATI22-W-20840	104	110	111	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-13a. Methylene chloride reported.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-12b, analysis date May 12, 2006 (cont.)									
NATI24-W-20841	101	107	108						
NATI24-W-20842	99	100	96						
NATI24-W-20843	97	98	90						
NATI24-W-20843DUP	99	104	97						
NATI23-W-20844	101	105	95						
NATI18-W-20832	92	101	94	Outside calibration for carbon tetrachloride at DF1. Analyzed at dilution in SDG 06-5-13a. Methylene chloride reported.					
NATI22-W-20835	101	105	95						
NATI24-W-20839	86	84	91						
NATI22-W-20847	93	93	85						
NATI21-W-20867	92	92	85						
NATI14-W-20768	95	99	94	Analysis at DF5 for carbon tetrachloride, chloroform, and methylene chloride.					
NATI13-W-20820	100	111	97	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI16-W-20817	96	99	90	Analysis at DF20 for carbon tetrachloride and chloroform.					
NATI16-W-20791	92	95	85	Analysis at DF5 for carbon tetrachloride, chloroform, and methylene chloride.					
NATI16-W-20791DUP	86	88	81	Analysis at DF5 for carbon tetrachloride, chloroform, and methylene chloride.					
Laboratory blank 2	100	100	100						
NATI17-W-20829	101	106	104						
NATI14-W-20695	98	97	94	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI14-W-20693	98	100	95	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI14-W-20691	97	97	93	Analysis at DF5 for carbon tetrachloride and chloroform.					
SDG 06-5-13a, analysis date May 13, 2006									
20-ppb standard	99	97	98	20.91	1.1	19.64	0.5	22.29	2.7
Laboratory blank	104	110	105						
NATI16-W-20789	96	93	103						
NATI15-W-20823	104	99	109						
NATI26-W-20233	99	91	99						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-13a, analysis date May 13, 2006 (cont.)									
NATI26-W-20230	100	93	104						
NATI26-W-20723	99	109	102						
NATI26-W-20719	99	107	103						
NATI26-W-20719DUP	95	89	95						
NATI25-W-20720	96	92	97						
NATI25-W-20722	97	95	102						
NATI19-W-20231	96	90	97						
NATI26-W-20229	87	83	88						
NATI25-W-20232	108	100	95						
NATI25-W-20235	90	84	89						
NATI26-W-20718	90	96	90						
NATI26-W-20721	94	95	105						
Laboratory blank 2	102	81	87						
NATI19-W-20869	107	92	98						
NATI22-W-20836	106	85	91	Analysis at DF10 for carbon tetrachloride and chloroform.					
NATI22-W-20840	108	90	95	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI18-W-20832	103	87	93	Analysis at DF20 for carbon tetrachloride and chloroform.					
NATI18-W-20831	104	86	91	Analysis at DF20 for carbon tetrachloride and chloroform.					
NATI18-W-20831DUP	106	85	90	Analysis at DF20 for carbon tetrachloride and chloroform.					
SDG 06-5-13b, analysis date May 13, 2006									
20-ppb standard	100	100	100	21.17	1.4	21.33	1.6	20.8	1.0
Laboratory blank	100	100	100						
NATI21-W-20228	102	92	91						
NATI19-W-20872	104	106	101						
NATI21-W-20881	109	104	107						
NATI21-W-20885	103	101	103						
NATI21-W-20885DUP	96	96	97						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-13b, analysis date May 13, 2006 (cont.)									
NATI25-W-20884	99	113	96						
NATI26-W-20877	102	112	110						
NATI21-W-20879	103	106	105						
NATI26-W-20883	93	117	114						
NATI21-W-20882	94	97	99						
NATI25-W-20878	87	109	99						
NATI25-W-20875	81	110	99						
NATI25-W-20876	0[d]	0[d]	0[d]	Reanalyzed in SDG 06-5-15.					
NATI21-W-20880	0[d]	0[d]	0[d]	Reanalyzed in SDG 06-5-15.					
NAQCTB-W-20724	82	71[d]	68[d]	Reanalyzed in SDG 06-5-15.					
NAQCTB-W-20873	118	92	92						
NAQCRIN-W-20234	118	94	89						
NAQCRIN-W-20874	116	92	86						
SDG 06-5-15, analysis date May 15, 2006									
20-ppb standard	111	118	106	20.59	0.7	18.58	1.8	22.33	2.8
Laboratory blank	100	100	100						
NATI25-W-20876	101	104	101						
NATI21-W-20880	100	103	102						
NATI21-W-20880DUP	97	102	103						
NAQCTB-W-20724	96	100	101						
Methanol blank	100	100	100						
NATI14-S-20671DUP	100	103	106						
NATI14-S-20667	102	99	105						
NATI14-S-20656	98	104	110						
NAQCTB-S-20583	95	100	104						
NATI15-S-20568	99	103	105						
NATI15-S-20573	98	104	108						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-15, analysis date May 15, 2006 (cont.)									
NATI15-S-20570	112	152[d]	144[d]	Reanalyzed in SDG 06-5-18.					
NATI15-S-20575	105	108	89						
NATI15-S-20571	96	105	107						
NATI15-S-20574	106	111	116						
NATI15-S-20576	107	114	116						
NATI15-S-20569	102	106	106						
NATI15-S-20572	102	107	110						
NATI15-S-20566	105	109	93						
SDG 06-5-16a, analysis date May 16, 2006									
20-ppb standard	83	101	100	19.4	0.8	21.73	2.1	21.11	1.4
Methanol blank	95	90	91						
NATI15-S-20567	93	107	107						
NAQCTB-S-20582	107	194[d]	153[d]	Reanalyzed in SDG 06-5-18.					
NATI17-S-20809	101	119	121[d]	Reanalyzed in SDG 06-5-18.					
NATI17-S-20796	98	118	117						
NATI17-S-20804	97	104	114						
NATI16-S-20781	93	107	111						
NATI17-S-20802	92	108	117						
Methanol blank 2	100	100	100						
NATI17-S-20799	90	101	101						
NATI17-S-20798	88	97	100						
NATI17-S-20798DUP	88	97	101						
NATI17-S-20803	89	99	100						
NATI17-S-20811	91	105	105						
NATI17-S-20808	91	154[d]	107	Reanalyzed in SDG 06-5-18.					
NATI17-S-20801	88	105	103						
NATI16-S-20774	93	102	104						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-16a, analysis date May 16, 2006 (cont.)									
NATI16-S-20782	89	107	113						
NATI16-S-20771	91	109	109						
NATI16-S-20785	88	107	106						
NATI16-S-20772	89	107	104						
NATI16-S-20773	88	103	100						
NATI16-S-20775	86	98	92						
NATI16-S-20770	89	54[d]	105	Reanalyzed in SDG 06-5-18.					
SDG 06-5-16b, analysis date May 16, 2006									
20-ppb standard	100	100	100	21.87	2.2	23.33	3.8	22.01	2.4
Methanol blank	100	100	100						
NATI17-S-20812	98	90	104						
NATI17-S-20797	97	92	108						
NATI17-S-20810	99	94	110						
NATI17-S-20810DUP	97	91	109						
NATI17-S-20806	97	90	104						
NATI17-S-20800	97	90	103						
NATI17-S-20807	97	101	104						
Methanol blank 2	97	88	103						
NATI17-S-20805	96	92	104						
NATI16-S-20780	94	86	102						
NATI16-S-20783	94	89	103						
NATI16-S-20787	95	92	104						
NATI16-S-20788	96	99	108						
NATI16-S-20776	96	102	106						
NATI16-S-20779	97	91	106						
NATI14-S-20673	98	98	112						
NATI16-S-20786	98	103	109						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-16b, analysis date May 16, 2006 (cont.)									
NATI16-S-20777	95	102	106						
NATI15-S-20564	96	95	109						
NATI16-S-20778	95	93	108						
NATI15-S-20581	96	94	106						
NATI14-S-20687	85	96	99						
NATI14-S-20686	91	102	103						
SDG 06-5-17, analysis date May 17, 2006									
20-ppb standard	100	100	100	18.66	1.7	18.8	1.5	18.91	1.4
Methanol blank	111	113	111						
NATI14-S-20688	93	89	100						
NATI14-S-20689	91	87	98						
NATI15-S-20565	93	89	98						
NATI14-S-20690	91	85	94						
NATI16-S-20784	88	84	94						
NATI14-S-20675	89	92	91						
NATI15-S-20579	70[d]	68[d]	78[d]	Reanalyzed in SDG 06-5-18.					
Methanol blank 2	89	87	89						
NATI14-S-20674	88	89	89						
NATI14-S-20674DUP	88	80	90						
NAQCTB-S-20794	84	83	86						
NAQCTB-S-20795	91	94	98						
NAQCTB-S-20767	85	81	91						
NATI15-S-20580	96	91	102						
NATI15-S-20577	91	94	98						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-18, analysis date May 18, 2006									
20-ppb standard	100	100	100	19.64	0.5	19.02	1.3	18.8	1.5
Laboratory blank	116	115	116						
NATI15-S-20578	91	96	96						
NATI15-S-20766	94	92	103						
NATI15-S-20766DUP	87	92	90						
NATI15-S-20570	109	112	109						
NATI15-S-20585	87	92	92						
NAQCTB-S-20582	84	93	87						
NATI17-S-20809	83	80	87						
NATI16-S-20770	86	85	94						
NATI17-S-20808	85	82	90						
NATI15-S-20579	90	88	96						
SDG 06-5-20, analysis date May 20, 2006									
20-ppb standard	96	102	94	20.67	0.8	19.87	0.2	19.57	0.5
Laboratory blank	100	100	100						
NATI28-W-20647	97	88	90						
NATI28-W-20254	97	99	100						
NATI28-W-20255	95	99	102						
NATI27-W-20680	94	100	97						
NATI27-W-20684	89	95	91						
NATI28-W-20683	88	92	87						
NATI28-W-20683DUP	84	85	81						
NAQCTB-W-20682	84	80	82						
NAQCRIN-W-20648	82	91	82						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-22a, analysis date May 22, 2006									
20-ppb standard	115	101	108	18.34	2.2	20.09	0.1	18.64	1.8
Laboratory blank	85	80	92						
NATI28-W-20851	104	96	96	Outside calibration for carbon tetrachloride at DF1. Analyzed at DF100 in SDG 06-5-23. Methylene chloride and tetrachloroethylene reported.					
NATI28-W-20849	111	115	116						
NATI28-W-20849DUP	101	102	113						
NATI28-W-20850	103	120	116						
NATI27-W-20701	111	118	115						
NATI27-W-20704	97	97	111						
NATI27-W-20699	95	91	110						
NATI27-W-20700	95	89	105						
Methanol blank	109	96	92						
NATI28-S-20240	111	99	99						
NATI18-S-20260	113	107	106						
NATI18-S-20257	111	103	101						
NATI18-S-20258	112	101	100						
NATI28-S-20238	113	100	96						
Methanol blank 2	102	91	90						
NATI28-S-20249	103	97	101						
NATI28-S-20251	106	93	95						
NATI28-S-20248	106	98	102						
NATI28-S-20245	105	98	96						
NAQCTB-S-20681	118	159[d]	133[d]	Reanalyzed in SDG 06-5-25a.					
SDG 06-5-22b, analysis date May 22, 2006									
20-ppb standard	107	118	118	20.72	0.9	19.23	1.0	18.81	1.5
Methanol blank	106	111	113						
NATI28-S-20242	98	104	107						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-22b, analysis date May 22, 2006 (cont.)									
NATI28-S-20243	106	119	120						
NATI28-S-20241	101	11	96						
NATI28-S-20239	102	105	99						
NATI28-S-20244	107	106	115						
NATI28-S-20244DUP	101	109	108						
NATI18-S-20679	96	104	103						
Methanol blank 2	99	91	92						
NATI28-S-20237	94	95	89						
NATI18-S-20256	92	93	90						
NATI18-S-20259	88	82	85						
NATI28-S-20236	98	88	92						
NAQCTB-S-20263	84	84	85						
NATI18-S-20265	96	99	94						
NATI18-S-20678	91	97	92						
Methanol blank 3	95	98	95						
NATI18-S-20676	103	111	111						
NATI28-S-20252	97	91	93						
NATI28-S-20247	97	92	95						
NATI28-S-20250	95	90	94						
NATI28-S-20253	97	97	93						
NATI28-S-20246	96	89	92						
NATI18-S-20677	94	85	93						
NATI18-S-20677DUP	95	87	90						
SDG 06-5-23, analysis date May 23, 2006									
20-ppb standard	92	106	98	24.12	4.7	22.73	3.2	22.55	3.0
Laboratory blank	88	89	90						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-23, analysis date May 23, 2006 (cont.)									
NATI18-W-20655	89	113	105	Outside calibration for carbon tetrachloride at DF1. Analysis at DF10 below in this SDG. Methylene chloride reported.					
NATI18-W-20706	99	113	117	Outside calibration for carbon tetrachloride at DF1. Analysis at DF10 below in this SDG. Methylene chloride reported.					
NATI18-W-20711	97	113	109						
NATI18-W-20709	96	116	115						
NATI18-W-20707	92	111	110	Outside calibration for carbon tetrachloride at DF1. Analysis at DF10 in SDG 06-5-24. Methylene chloride and tetrachloroethylene reported.					
NATI18-W-20710	87	92	97						
NATI18-W-20710DUP	89	105	102						
NATI27-W-20905	89	95	100						
NATI27-W-20649	87	100	96						
NATI28-W-20904	85	90	92	Outside calibration for carbon tetrachloride at DF1. Analysis at DF100 in SDG 06-5-24. Methylene chloride and tetrachloroethylene reported.					
NATI29-W-20906	75[d]	84	88	Reanalyzed in SDG 06-5-24.					
NATI29-W-20907	88	90	94						
NATI29-W-20909	70[d]	80	79[d]	Outside calibration for carbon tetrachloride at DF1. Analysis at DF5 in SDG 06-5-24. Methylene chloride is detected in the reanalysis.					
NATI29-W-20902	85	96	100	Outside calibration for carbon tetrachloride at DF1. Analysis at DF5 in SDG 06-5-24. Methylene chloride reported.					
NATI29-W-20903	87	92	96						
NATI29-W-20900	74[d]	81	79[d]	Outside calibration for carbon tetrachloride at DF1. Analysis at DF10 in SDG 06-5-24. Methylene chloride reported.					
NATI29-W-20901	105	120	117	Outside calibration for carbon tetrachloride at DF1. Analysis at DF10 in SDG 06-5-24. Methylene chloride and tetrachloroethylene reported.					
NAQCRIN-W-20908	112	111	110						
NAQCTB-W-20650	96	100	96						
NATI18-W-20655	99	107	107	Analysis at DF10 for carbon tetrachloride and chloroform.					
NATI18-W-20706	96	91	95	Analysis at DF10 for carbon tetrachloride and chloroform.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-23, analysis date May 23, 2006 (cont.)									
NATI28-W-20851	96	101	93	Analysis at DF100 for carbon tetrachloride and chloroform.					
NATI28-W-20851DUP	93	85	85	Analysis at DF100 for carbon tetrachloride and chloroform.					
SDG 06-5-24, analysis date May 24, 2006									
20-ppb standard	112	114	106	22.32	2.7	21.51	1.8	21.21	1.5
Laboratory blank	88	89	90						
NATI30-W-20911	114	112	103						
NATI30-W-20915	109	114	109						
NATI30-W-20917	109	113	111						
NATI30-W-20917DUP	95	104	103						
NATI30-W-20920	106	112	113						
NATI30-W-20918	104	104	113						
NATI30-W-20919	127[d]	134[d]	135[d]	Reanalyzed in SDG 06-5-25a.					
NATI20-W-20912	89	96	91						
NATI20-W-20913	98	103	100						
NATI20-W-20922	90	87	91						
NATI20-W-20923	88	95	91						
NATI20-W-20914	95	101	97						
NATI29-W-20916	90	93	98						
NATI18-W-20921	89	87	92						
NAQCTB-W-20925	89	92	90						
NAQCRIN-W-20924	93	94	90						
NATI29-W-20906	92	95	95						
NATI29-W-20901	93	95	93	Analysis at DF10 for carbon tetrachloride and chloroform.					
NATI29-W-20902	94	98	92	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI28-W-20904	96	100	96	Analysis at DF100 for carbon tetrachloride and chloroform.					
NATI28-W-20904DUP	87	89	82	Analysis at DF100 for carbon tetrachloride and chloroform.					
NATI18-W-20707	90	81	85	Analysis at DF10 for carbon tetrachloride and chloroform.					

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-24, analysis date May 24, 2006 (cont.)									
NATI29-W-20909	88	88	83	Analysis at DF5 for carbon tetrachloride and chloroform.					
NATI29-W-20900	88	88	84	Analysis at DF10 for carbon tetrachloride and chloroform.					
SDG 06-5-25a, analysis date May 25, 2006									
20-ppb standard	108	105	102	19.34	0.8	18.75	1.6	18.93	1.4
Laboratory blank	100	100	100						
NATI30-W-20712	98	93	89						
NATI30-W-20712DUP	98	96	103						
NATI20-W-20713	99	97	103						
NAQCTB-W-20714	98	99	100						
NATI30-W-20919	101	103	104						
Methanol blank	100	100	100						
NATI29-S-20697	105	106	108						
NATI29-S-20897	110	118	120						
NATI29-S-20698	106	118	119						
NATI29-S-20891	106	109	116						
NATI29-S-20892	106	117	111						
NATI29-S-20703	106	110	113						
NATI29-S-20703DUP	104	110	113						
NATI29-S-20887	98	105	106						
NAQCTB-S-20899	97	98	98						
NATI29-S-20898	99	107	108						
NATI18-S-20651	92	103	100						
NAQCTB-S-20681	93	100	100						
NATI29-S-20956	99	104	106						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-25b, analysis date May 25, 2006									
20-ppb standard	94	99	97	16.34	5.0	22.04	2.4	19.65	0.4
Laboratory blank	117	116	116						
NATI29-S-20893	100	100	96						
NATI18-S-20652	107	112	103						
NATI29-S-20896	103	100	100						
NATI18-S-20653	100	103	100						
NATI28-S-20696	103	106	109						
NATI29-S-20894	100	102	103						
NATI29-S-20894DUP	98	97	93						
NATI29-S-20705	96	93	94						
NATI29-S-20855	95	95	97						
NATI29-S-20886	93	97	95						
NATI29-S-20888	97	95	95						
NATI29-S-20889	95	93	93						
NATI29-S-20890	91	90	91						
NATI18-S-20654	90	90	88						
SDG 06-5-26, analysis date May 26, 2006									
20-ppb standard	94	103	93	18.4	2.1	17.61	3.2	17.14	3.9
Laboratory blank	96	91	94						
NATI31-W-20947	104	109	106						
NATI31-W-20715	100	116	114						
NATI31-W-20936	99	109	107						
NAANDER2-W-20942	91	103	98						
NATI30-W-20939	91	98	94						
NATI31-W-20938	93	95	95						
NAANDER3-W-20943	89	93	90						
NATI31-W-20937	90	97	95						

TABLE S4.4 (Cont.)

Sample	Recovery of Surrogate Compounds[a] (%)			Measured Concentration and RPD Value for Calibration Check Standard					
				Carbon Tetrachloride		Chloroform		Methylene Chloride	
	Fluorobenzene	Bromo-fluorobenzene	Dichloro-benzene-d_4	ppb[b]	RPD[c]	ppb[b]	RPD[c]	ppb[b]	RPD[c]
SDG 06-5-26, analysis date May 26, 2006 (cont.)									
NATI30-W-20946	90	97	95						
NAANDER1-W-20941	93	101	94						
NANW3-W-20945	84	94	92						
NAQCTB-W-20944	91	84	86						

[a] Quality control range for recovery = 80–120%.

[b] Concentration in parts per billion (µg/L in water or µg/kg in soil).

[c] Quality control range for RPD = ±20%.

[d] Surrogate recovery outside quality control range.

TABLE S4.5 Comparison of AGEM Laboratory results for primary and secondary organic analyses of samples collected during the 2006 investigation at Navarre, Kansas.

						Concentration (µg/L in water; µg/kg in soil)		
Location	Depth[a]	Sample Date	Medium	Sample	Analysis Type	Carbon Tetrachloride	Chloroform	Methylene Chloride
CP1	9.1	4/10/06	Soil	NACP1-S-20329	Primary sample	ND[b]	ND	ND
				NACP1-S-20329DUP	Duplicate analysis	ND	ND	ND
L-1	75–95	4/8/06	Water	NAL1-W-20211	Primary sample	54	11	ND
				NAL1-W-20211DUP	Duplicate analysis	54	11	ND
				NAQCDU-W-20213	Replicate sample	57	11	ND
MW2	42.8–57.8	4/6/06	Water	NAMW02-W-20188	Primary sample	27	7.7	ND
				NAQCDU-W-20200	Replicate sample	27	7.8	ND
MW3	44–59	4/6/06	Water	NAMW03-W-20192	Primary sample	83	20	ND
				NAMW03-W-20192DUP	Duplicate analysis	83	20	ND
NW-1	40–50	4/8/06	Water	NANW1-W-20215	Primary sample	1.1	0.3 J[c]	ND
				NAQCDU-W-20225	Replicate sample	1.2	0.4 J	ND
TI-1	23.75	4/11/06	Soil	NATI1-S-20467	Primary sample	1.3 J	ND	ND
				NATI1-S-20467DUP	Duplicate analysis	1.4 J	0.7 J	ND
TI-1	31	4/8/06	Soil	NATI1-S-20306	Primary sample	56	3.7 J	ND
				NATI1-S-20307	Replicate sample	68	1.8 J	ND
TI-1	38–43	4/13/06	Water	NATI1-W-20342	Primary sample	177	64	10.2
				NATI1-W-20343	Replicate sample	168	61	8.8
TI-1	44	4/13/06	Soil	NATI1-S-20482	Primary sample	3.3 J	2.6 J	ND
				NATI1-S-20483	Replicate sample	1.9 J	2.7 J	ND
TI-2	16	4/5/06	Soil	NATI2-S-20411	Primary sample	ND	ND	ND
				NATI2-S-20412	Replicate sample	ND	ND	ND
TI-2	24.5	4/6/06	Soil	NATI2-S-20414	Primary sample	ND	ND	ND
				NATI2-S-20414DUP	Duplicate analysis	ND	ND	ND
TI-2	31–36	4/21/06	Water	NATI2-W-20277	Primary sample	8.7	7.8	ND
				NATI2-W-20278	Replicate sample	7.8	7.8	ND
TI-2	38	4/6/06	Soil	NATI2-S-20419	Primary sample	65	3.9 J	ND
				NATI2-S-20419DUP	Duplicate analysis	70	4.1 J	ND
TI-2	66–70	4/21/06	Water	NATI2-W-20282	Primary sample	14	2.8	ND
				NATI2-W-20282DUP	Duplicate analysis	14	2.8	ND
TI-2	69–72	4/7/06	Water	NATI2-W-20432	Primary sample	ND	ND	ND
				NATI2-W-20432DUP	Duplicate analysis	ND	ND	ND
				NATI2-W-20433	Replicate sample	ND	ND	ND

TABLE S4.5 (Cont.)

Location	Depth[a]	Sample Date	Medium	Sample	Analysis Type	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform	Methylene Chloride
TI-3	25.5	4/7/06	Soil	NATI3-S-20297	Primary sample	ND	ND	ND
				NATI3-S-20297DUP	Duplicate analysis	ND	ND	ND
TI-3	43–48	4/14/06	Water	NATI3-W-20383	Primary sample	72	12	ND
				NATI3-W-20384	Replicate sample	57	11	ND
TI-3	56.5	4/13/06	Soil	NATI3-S-20379	Primary sample	1.3 J	ND	ND
				NATI3-S-20380	Replicate sample	2.1 J	1 J	ND
TI-4	34	4/9/06	Soil	NATI4-S-20317	Primary sample	0.8 J	ND	ND
				NATI4-S-20318	Replicate sample	3.1 J	2.8 J	ND
TI-4	55–60	4/11/06	Water	NATI4-W-20470	Primary sample	23	7	ND
				NATI4-W-20471	Replicate sample	23	6.3	ND
TI-4	61	4/9/06	Soil	NATI4-S-20324	Primary sample	ND	ND	ND
				NATI4-S-20324DUP	Duplicate analysis	ND	ND	ND
TI-4	61–66	4/12/06	Water	NATI4-W-20472	Primary sample	0.6 J	3.6	ND
				NATI4-W-20472DUP	Duplicate analysis	0.6 J	3.6	ND
TI-5	17.2	4/11/06	Soil	NATI5-S-20334	Primary sample	ND	ND	ND
				NATI5-S-20334DUP	Duplicate analysis	ND	ND	ND
TI-5	25–25	4/11/06	Soil	NATI5-S-20356	Primary sample	ND	ND	ND
				NATI5-S-20357	Replicate sample	ND	ND	ND
TI-5	49.5	4/11/06	Soil	NATI5-S-20364	Primary sample	ND	ND	ND
				NATI5-S-20364DUP	Duplicate analysis	2.9 J	ND	ND
TI-6	2	4/20/06	Soil	NATI6-S-20390	Primary sample	ND	ND	ND
				NATI6-S-20390DUP	Duplicate analysis	ND	ND	ND
TI-6	38–43	4/22/06	Water	NATI6-W-20353	Primary sample	1.3	1	ND
				NATI6-W-20353DUP	Duplicate analysis	1.3	1	ND
TI-6	50	4/20/06	Soil	NATI6-S-20402	Primary sample	1.3 J	ND	ND
				NATI6-S-20403	Replicate sample	1 J	ND	ND
TI-6	68–73	4/22/06	Water	NATI6-W-20350	Primary sample	ND	ND	ND
				NATI6-W-20351	Replicate sample	ND	ND	ND
TI-7	29	4/9/06	Soil	NATI7-S-20449	Primary sample	ND	ND	ND
				NATI7-S-20449DUP	Duplicate analysis	ND	ND	ND
TI-7	37–42	4/20/06	Water	NATI7-W-20270	Primary sample	3.8	1.9	ND
				NATI7-W-20271	Replicate sample	3	1.7	ND
				NATI7-W-20271DUP	Duplicate analysis	2.8	1.5	ND

TABLE S4.5 (Cont.)

Location	Depth[a]	Sample Date	Medium	Sample	Analysis Type	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform	Methylene Chloride
TI-8	54.6	4/27/06	Soil	NATI8-S-20526	Primary sample	ND	ND	ND
				NATI8-S-20527	Replicate sample	ND	ND	ND
TI-9	25	4/22/06	Soil	NATI9-S-20595	Primary sample	ND	ND	ND
				NATI9-S-20596	Replicate sample	ND	ND	ND
TI-10	43	4/26/06	Soil	NATI10-S-20624	Primary sample	ND	ND	ND
				NATI10-S-20625	Replicate sample	ND	ND	ND
				NATI10-S-20625DUP	Duplicate analysis	ND	ND	ND
TI-10	46–51	4/27/06	Water	NATI10-W-20632	Primary sample	0.4 J	ND	11
				NATI10-W-20634	Replicate sample	0.1 J	0.1 J	6.2
TI-10	54	4/26/06	Soil	NATI10-S-20636	Primary sample	ND	ND	ND
				NATI10-S-20636DUP	Duplicate analysis	ND	ND	ND
TI-10	59–64	4/27/06	Water	NATI10-W-20637	Primary sample	0.3 J	ND	ND
				NATI10-W-20637DUP	Duplicate analysis	0.4 J	ND	ND
TI-10	66–71	4/25/06	Water	NATI10-W-20610	Primary sample	ND	ND	ND
				NATI10-W-20610DUP	Duplicate analysis	ND	ND	ND
TI-11	38	4/23/06	Soil	NATI11-S-20495	Primary sample	ND	ND	ND
				NATI11-S-20495DUP	Duplicate analysis	ND	ND	ND
TI-11	42	4/23/06	Soil	NATI11-S-20496	Primary sample	ND	ND	ND
				NATI11-S-20496DUP	Duplicate analysis	ND	ND	ND
TI-11	46.3–51.3	4/23/06	Water	NATI11-W-20500	Primary sample	0.9 J	0.1 J	ND
				NATI11-W-20501	Replicate sample	1	ND	ND
TI-11	56.5	4/25/06	Soil	NATI11-S-20503	Primary sample	ND	ND	ND
				NATI11-S-20504	Replicate sample	ND	ND	ND
TI-11	65.9–70.9	4/27/06	Water	NATI11-W-20639	Primary sample	0.4 J	ND	ND
				NATI11-W-20639DUP	Duplicate analysis	0.4 J	ND	ND
TI-12	21	5/3/06	Soil	NATI12-S-20739	Primary sample	ND	ND	ND
				NATI12-S-20740	Replicate sample	ND	ND	ND
TI-12	34–39	5/2/06	Water	NATI12-W-20727	Primary sample	ND	ND	ND
				NATI12-W-20727DUP	Duplicate analysis	ND	ND	ND
TI-12	39.4–44.4	5/2/06	Water	NATI12-W-20728	Primary sample	ND	ND	ND
				NATI12-W-20729	Replicate sample	ND	ND	ND
TI-13	42–47	5/5/06	Water	NATI13-W-20562	Primary sample	116	60	1.2
				NATI13-W-20820	Replicate sample	155	80	1.2

TABLE S4.5 (Cont.)

Location	Depth[a]	Sample Date	Medium	Sample	Analysis Type	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform	Methylene Chloride
TI-13	66.8–71.8	5/4/06	Water	NATI13-W-20555	Primary sample	0.6 J	0.3 J	ND
				NATI13-W-20556	Replicate sample	0.5 J	0.2 J	ND
TI-14	35.25	5/5/06	Soil	NATI14-S-20671	Primary sample	364	16	ND
				NATI14-S-20671DUP	Duplicate analysis	387	6.1 J	ND
TI-14	44.5	5/5/06	Soil	NATI14-S-20674	Primary sample	114	2.3 J	ND
				NATI14-S-20674DUP	Duplicate analysis	139	2.9 J	ND
TI-14	67.4–72.4	5/5/06	Water	NATI14-W-20666	Primary sample	6	280	12.6
				NATI14-W-20666DUP	Duplicate analysis	6.6	319	12.1
TI-15	15–20	5/8/06	Water	NATI15-W-20644	Primary sample	ND	ND	ND
				NATI15-W-20821	Replicate sample	ND	ND	ND
TI-15	25–30	5/9/06	Water	NATI15-W-20822	Primary sample	45	9.2	ND
				NATI15-W-20823	Replicate sample	35	9.5	ND
TI-15	60.75	5/6/06	Soil	NATI15-S-20766	Primary sample	ND	ND	ND
				NATI15-S-20766DUP	Duplicate analysis	ND	ND	ND
TI-15	67.1–72.1	5/6/06	Water	NATI15-W-20761	Primary sample	ND	ND	ND
				NATI15-W-20762	Replicate sample	ND	ND	ND
TI-16	39–44	5/8/06	Water	NATI16-W-20791	Primary sample	189	123	6
				NATI16-W-20791DUP	Duplicate analysis	197	128	6
TI-17	9.1	5/7/06	Soil	NATI17-S-20798	Primary sample	ND	ND	ND
				NATI17-S-20798DUP	Duplicate analysis	ND	ND	ND
TI-17	39–44	5/9/06	Water	NATI17-W-20826	Primary sample	1.7	1.6	ND
				NATI17-W-20827	Replicate sample	2.6	3.5	ND
TI-17	49.25	5/7/06	Soil	NATI17-S-20810	Primary sample	ND	ND	ND
				NATI17-S-20810DUP	Duplicate analysis	ND	ND	ND
TI-17	53–58	5/9/06	Water	NATI17-W-20829	Primary sample	2.5	1.5	ND
				NATI17-W-20829DUP	Duplicate analysis	2.3	1.4	ND
TI-18	37	5/19/06	Soil	NATI18-S-20677	Primary sample	109	ND	ND
				NATI18-S-20677DUP	Duplicate analysis	107	ND	ND
TI-18	35–40	5/10/06	Water	NATI18-W-20831	Primary sample	782	47	2.7
				NATI18-W-20832	Replicate sample	809	41	1.1
TI-18	41	5/19/06	Soil	NATI18-S-20678	Primary sample	400	9.2 J	ND
				NATI18-S-20679	Replicate sample	348	9.6 J	ND

TABLE S4.5 (Cont.)

Location	Depth[a]	Sample Date	Medium	Sample	Analysis Type	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform	Methylene Chloride
TI-18	56–61	5/21/06	Water	NATI18-W-20709	Primary sample	70	35	1.5
				NATI18-W-20710	Replicate sample	77	38	1.5
				NATI18-W-20710DUP	Duplicate analysis	68	34	1.4
TI-19	46–51	5/11/06	Water	NATI19-W-20870	Primary sample	0.3 J	ND	ND
				NATI19-W-20871	Replicate sample	0.2 J	ND	ND
TI-19	53–58	5/11/06	Water	NATI19-W-20868	Primary sample	0.3 J	ND	ND
				NATI19-W-20868DUP	Duplicate analysis	0.3 J	ND	ND
TI-20	72–77	5/23/06	Water	NATI20-W-20922	Primary sample	ND	ND	ND
				NATI20-W-20923	Replicate sample	ND	ND	ND
TI-21	32–37	5/11/06	Water	NATI21-W-20885	Primary sample	0.9 J	0.9 J	ND
				NATI21-W-20885DUP	Duplicate analysis	0.8 J	0.9 J	ND
TI-21	60–65	5/11/06	Water	NATI21-W-20880	Primary sample	ND	0.4 J	ND
				NATI21-W-20880DUP	Duplicate analysis	ND	0.4 J	ND
				NATI21-W-20879	Replicate sample	0.4 J	0.7 J	ND
TI-22	39–44	5/10/06	Water	NATI22-W-20834	Primary sample	26	12	ND
				NATI22-W-20835	Replicate sample	35	14	ND
TI-22	68.2–73.2	5/10/06	Water	NATI22-W-20846	Primary sample	ND	ND	ND
				NATI22-W-20847	Replicate sample	ND	ND	ND
TI-23	60–65	5/10/06	Water	NATI23-W-20856	Primary sample	1	ND	ND
				NATI23-W-20857	Replicate sample	1.9	ND	ND
TI-24	39–44	5/10/06	Water	NATI24-W-20838	Primary sample	1.5	1.9	ND
				NATI24-W-20839	Replicate sample	2.2	2.6	ND
TI-24	60–65	5/10/06	Water	NATI24-W-20843	Primary sample	1	0.6 J	ND
				NATI24-W-20843DUP	Duplicate analysis	0.8 J	0.5 J	ND
TI-24	69.4–74.4	5/10/06	Water	NATI24-W-20845	Primary sample	ND	ND	ND
				NATI24-W-20845DUP	Duplicate analysis	ND	ND	ND
TI-25	39–44	5/11/06	Water	NATI25-W-20875	Primary sample	ND	0.2 J	ND
				NATI25-W-20876	Replicate sample	ND	ND	ND
TI-26	53–58	5/11/06	Water	NATI26-W-20229	Primary sample	4.8	3.1	ND
				NATI26-W-20230	Replicate sample	3.6	2.7	ND
TI-26	66–71	5/12/06	Water	NATI26-W-20719	Primary sample	3.2	8.1	ND
				NATI26-W-20719DUP	Duplicate analysis	3.2	8.2	ND

TABLE S4.5 (Cont.)

Location	Depth[a]	Sample Date	Medium	Sample	Analysis Type	Concentration (µg/L in water; µg/kg in soil) Carbon Tetrachloride	Chloroform	Methylene Chloride
TI-27	49–54	5/20/06	Water	NATI27-W-20700	Primary sample	2	0.7 J	ND
				NATI27-W-20701	Replicate sample	1.8	0.6 J	ND
TI-28	32.75	5/18/06	Soil	NATI28-S-20244	Primary sample	287	ND	ND
				NATI28-S-20244DUP	Duplicate analysis	290	3.3 J	ND
				NATI28-S-20245	Replicate sample	298	5 J	ND
TI-28	37–42	5/20/06	Water	NATI28-W-20849	Primary sample	97	91	1
				NATI28-W-20849DUP	Duplicate analysis	101	97	1
TI-28	51–56	5/19/06	Water	NATI28-W-20683	Primary sample	12	2.7	ND
				NATI28-W-20683DUP	Duplicate analysis	13	2.6	ND
TI-28	58–63	5/19/06	Water	NATI28-W-20254	Primary sample	15	8.9	ND
				NATI28-W-20255	Replicate sample	26	10	ND
TI-29	13.5	5/19/06	Soil	NATI29-S-20703	Primary sample	ND	ND	ND
				NATI29-S-20703DUP	Duplicate analysis	ND	ND	ND
TI-29	39–44	5/21/06	Water	NATI29-W-20900	Primary sample	269	87	3.9
				NATI29-W-20901	Replicate sample	239	86	3.8
TI-29	53	5/19/06	Soil	NATI29-S-20894	Primary sample	6 J	1.9 J	ND
				NATI29-S-20894DUP	Duplicate analysis	6.1 J	2 J	ND
TI-29	62	5/21/06	Soil	NATI29-S-20897	Primary sample	ND	ND	ND
				NATI29-S-20898	Replicate sample	ND	ND	ND
TI-30	75–80	5/23/06	Water	NATI30-W-20917	Primary sample	ND	ND	ND
				NATI30-W-20917DUP	Duplicate analysis	0.7 J	0.3 J	ND
				NATI30-W-20919	Replicate sample	ND	ND	ND
TI-30	83.5–88.5	5/24/06	Water	NATI30-W-20712	Primary sample	ND	ND	ND
				NATI30-W-20712DUP	Duplicate analysis	ND	ND	ND
TI-31	70.7–75.7	5/24/06	Water	NATI31-W-20715	Primary sample	ND	ND	ND
				NATI31-W-20936	Replicate sample	ND	ND	ND

[a] Depths for soil samples are in ft BGL; depths for water samples are in ft below TOC.

[b] ND, not detected at the AGEM Laboratory method detection limit of 0.1 µg/L for water samples or 1.0 µg/kg for soil samples.

[c] Qualifier J indicates an estimated concentration below the AGEM Laboratory quantitation limit of 0.1 µg/L for water samples and 10.0 µg/kg for soil samples.

TABLE S4.6 Recovery of system-monitoring compounds in verification organic analyses of soil samples by STL with EPA Method 8260B.

			Recovery[a] (%)			
Sample	Analysis Date	SDG	Toluene-d_8	1,2-Dichloro-ethane-d_4	Bromofluoro-benzene	1,2-Dichloro-benzene-d_4
NATI4-S-20308	4/28/06	113901	95	102	113	69[b]
NATI7-S-20454	4/28/06	113901	95	98	105	76[b]
NATI7-S-20453	4/28/06	113901	98	100	112	70[b]
NATI2-S-20408	4/28/06	113901	97	96	123[b]	63[b]
NATI1-S-20303	4/28/06	113901	97	102	123[b]	69[b]
NATI4-S-20311	4/28/06	113901	98	97	114	69[b]
NATI1-S-20476	4/28/06	113901	98	96	115	74[b]
NACP1-S-20330	4/28/06	113901	98	100	109	78[b]
NATI2-S-20413	4/28/06	113901	99	97	114	70[b]
NATI3-S-20295	4/28/06	113901	99	97	126[b]	62[b]
NA-MEOHBLANK-18APR06	4/28/06	113901	97	100	149[b]	58[b]
NATI1-S-20340	4/28/06	113901	96	98	122[b]	66[b]
NATI5-S-20358	4/28/06	113901	98	97	119	72[b]
LB042806LCS	4/28/06	113901	96	101	96	100
MBLK042806LB	4/28/06	113901	98	108	104	103
MEOHBLK	5/10/06	114211	96	107	96	88
MEOHLCS	5/10/06	114211	95	111	93	90
NATI8-S-20527	5/10/06	114211	95	100	96	92
NATI8-S-20511	5/10/06	114211	94	98	95	84
NATI9-S-20603	5/10/06	114211	98	99	101	92
NATI10-S-20620	5/10/06	114211	98	102	102	90
NATI6-S-20390	5/10/06	114211	97	103	97	92
NATI11-S-20496	5/10/06	114211	95	97	97	88
NATI9-S-20607	5/10/06	114211	98	100	102	90
NA-S-BLANK-02MAY06	5/10/06	114211	100	97	105	91
LA051006LCS	5/10/06	114211	101	100	100	102
MBLK051006LA	5/10/06	114211	97	105	98	98
MEOH LCS	5/19/06	114309	100	111	96	93
NA-MEOHBLANK-08MAY06	5/19/06	114309	97	109	96	96
NATI10-S-20636	5/19/06	114309	97	104	96	92
NATI12-S-20735	5/19/06	114309	99	101	97	94
NATI13-S-20538	5/19/06	114309	100	103	97	92
NATI12-S-20750	5/19/06	114309	99	100	101	92
NATI13-S-20541	5/19/06	114309	97	105	100	91
NATI15-S-20575	5/19/06	114309	98	100	97	91
NATI13-S-20545	5/19/06	114309	101	106	102	93
NATI14-S-20664	5/19/06	114309	99	98	99	93
NATI13-S-20543	5/19/06	114309	96	98	99	92
LB051806LCS	5/19/06	114309	99	102	97	97
MBLK051806LB	5/19/06	114309	101	106	103	100
MEOHLCS	5/24/06	114417	102	91	98	93
NA-MEOHBLANK-19MAY06	5/24/06	114417	119[b]	108	119	103
NATI14-S-20673	5/24/06	114417	138[b]	132	133[b]	119
NATI15-S-20578	5/24/06	114417	110	108	108	104
NATI17-S-20808	5/24/06	114417	118[b]	112	114	106

TABLE S4.6 (Cont.)

Sample	Analysis Date	SDG	Recovery[a] (%) Toluene-d_8	1,2-Dichloro-ethane-d_4	Bromofluoro-benzene	1,2-Dichloro-benzene-d_4
NATI16-S-20773	5/24/06	114417	103	89	100	93
NATI16-S-20783	5/24/06	114417	101	94	100	91
NATI14-S-20689	5/24/06	114417	103	97	98	93
LA052406LCS	5/24/06	114417	104	100	97	100
MBLK052406LB	5/24/06	114417	96	94	98	97

[a] Quality control ranges:

Compound	Range (%)
Toluene-d_8	81–117
1,2-Dichloroethane-d_4	80–120
Bromofluorobenzene	74–121
1,2-Dichlorobenzene-d_4	80–120

[b] Result outside quality control range.

TABLE S4.7 Recovery of contaminants of concern in laboratory quality control samples during verification organic analysis of soil samples by STL.

			Carbon Tetrachloride			Chloroform		
Sample	Analysis Date	SDG	Spiked Concentration (µg/L)	Detected Concentration (µg/L)	Recovery[a] (%)	Spiked Concentration (µg/L)	Detected Concentration (µg/L)	Recovery[b] (%)
LC042806LCS	4/28/06	113901	130	110	85	130	120	92
LB042806LCS	4/28/06	113901	10	9.5	95	10	9.7	97
MEOHLCS	5/10/06	114211	100	87	87	100	89	89
LA051006LCS	5/10/06	114211	10	9.8	98	10	9.7	97
MEOH LCS	5/19/06	114309	100	92	92	100	97	97
LB051806LCS	5/19/06	114309	10	9.3	93	10	9.4	94
MEOHLCS	5/24/06	114417	100	75	75	100	82	82
LA052406LCS	5/24/06	114417	10	8.6	86	10	9.0	90

[a] Quality control range for carbon tetrachloride recovery = 75–120%.

[b] Quality control range for chloroform recovery = 80–125%.

TABLE S4.8 Comparisons of organic results for verification analyses of soil samples collected during the 2006 investigation at Navarre, Kansas.

				AGEM Laboratory Results (µg/kg)		STL Results (µg/kg)		Relative Percent Difference	
Location	Sample	Depth (ft BGL)	Sample Date	Carbon Tetrachloride	Chloroform	Carbon Tetrachloride	Chloroform	Carbon Tetrachloride	Chloroform
TI-1	NATI1-S-20303	9	4/7/06	ND[a]	ND	ND	ND	–	–
TI-1	NATI1-S-20476	32.7	4/13/06	35	12	29	11	18.8	8.7
TI-1	NATI1-S-20340	59.5	4/13/06	ND	ND	ND	ND	–	–
TI-2	NATI2-S-20408	9	4/5/06	ND	ND	ND	ND	–	–
TI-2	NATI2-S-20413	20.5	4/5/06	ND	ND	ND	ND	–	–
TI-3	NATI3-S-20295	22	4/6/06	ND	1 J[b]	ND	ND	–	NC[c]
TI-4	NATI4-S-20308	2	4/8/06	ND	ND	ND	ND	–	–
TI-4	NATI4-S-20311	14.5	4/8/06	ND	ND	ND	ND	–	–
TI-5	NATI5-S-20358	30	4/11/06	ND	ND	ND	ND	–	–
TI-6	NATI6-S-20390	2	4/20/06	ND	ND	ND	ND	–	–
TI-7	NATI7-S-20453	41	4/9/06	ND	ND	ND	ND	–	–
TI-7	NATI7-S-20454	43	4/9/06	ND	ND	ND	ND	–	–
TI-8	NATI8-S-20511	16.5	4/26/06	ND	ND	ND	ND	–	–
TI-8	NATI8-S-20527	54.6	4/27/06	ND	ND	ND	ND	–	–
TI-9	NATI9-S-20603	50	4/23/06	2.7 J	ND	3.5 J	ND	25.8	–
TI-9	NATI9-S-20607	65	4/23/06	ND	ND	ND	ND	–	–
TI-10	NATI10-S-20620	29.5	4/26/06	ND	ND	ND	ND	–	–
TI-10	NATI10-S-20636	54	4/26/06	ND	ND	ND	ND	–	–
TI-11	NATI11-S-20496	42	4/23/06	ND	ND	ND	ND	–	–
TI-12	NATI12-S-20735	5.5	5/3/06	ND	ND	ND	ND	–	--
TI-12	NATI12-S-20750	48.5	5/3/06	ND	ND	ND	ND	–	–
TI-13	NATI13-S-20538	15.5	5/2/06	ND	ND	ND	ND	–	–
TI-13	NATI13-S-20541	27	5/3/06	176	33	140	34	22.8	3.0
TI-13	NATI13-S-20543	34.5	5/3/06	22	6.3 J	15	5.4 J	37.8	15.4
TI-13	NATI13-S-20545	38	5/3/06	45	29	35	29	25.0	0.0
TI-14	NATI14-S-20664	20.8	5/5/06	ND	ND	ND	ND	–	–

TABLE S4.8 (Cont.)

Location	Sample	Depth (ft BGL)	Sample Date	AGEM Laboratory Results (µg/kg)		STL Results (µg/kg)		Relative Percent Difference	
				Carbon Tetrachloride	Chloroform	Carbon Tetrachloride	Chloroform	Carbon Tetrachloride	Chloroform
TI-14	NATI14-S-20673	40.5	5/5/06	306	25	110	11	94.2	77.8
TI-14	NATI14-S-20689	57.8	5/6/06	50	4 J	16	ND	103.0	NC
TI-15	NATI15-S-20575	26.1	5/5/06	93	2.5 J	77	2.7 J	18.8	7.7
TI-15	NATI15-S-20578	34.6	5/5/06	13	ND	5.9 J	ND	75.1	–
TI-16	NATI16-S-20773	9.25	5/7/06	ND	ND	ND	ND	–	–
TI-16	NATI16-S-20783	36.5	5/7/06	36	9 J	13	3.6 J	93.9	85.7
TI-17	NATI17-S-20808	42	5/7/06	10	ND	3.2 J	ND	103	–
CP1	NACP1-S-20330	14.8	4/10/06	ND	ND	ND	ND	–	–

[a] ND, not detected at a method detection limit of 1.0 µg/kg.

[b] Qualifier J indicates an estimated concentration below the method quantitation limit of 10.0 µg/kg.

[c] NC, not calculated.

TABLE S4.9 Recovery of system-monitoring compounds in verification organic analyses of water samples by ENVSY.

			Recovery[a] (%)		
Sample	Analysis Date	SDG	Toluene-d_8	Bromofluoro-benzene	1,2-Dichloro-ethane-d_4
VBLKHO	4/20/06	605051	106	96	102
NATI3-W-20298	4/20/06	605051	134[b]	120[b]	126
NATI4-W-20325	4/20/06	605051	94	84[b]	92
NATI2-W-20433	4/20/06	605051	132[b]	120[b]	130
NAL2-W-20190	4/20/06	605051	106	94	102
NAQCTB-W-11APR06	4/20/06	605051	118[b]	104	114
VHBLKHO	4/20/06	605051	122[b]	102	118
VBLKF2	5/13/06	606057	104	78[b]	90
NATI13-W-20561	5/13/06	606057	104	78[b]	94
NATI13-W-20560	5/13/06	606057	104	78[b]	94
NATI14-W-20666	5/13/06	606057	106	80[b]	98
NATI13-W-20563	5/13/06	606057	106	78[b]	102
NATI13-W-20562	5/13/06	606057	106	78[b]	94
NAQCTB-050706	5/13/06	606057	104	76[b]	94
VHBLKFK	5/13/06	606057	104	82[b]	100
VBLKHP	5/17/06	606057	102	100	104
NATI14-W-20666DL	5/17/06	606057	102	98	102
NATI13-W-20563DL	5/17/06	606057	98	98	104
VBLKHW	5/24/06	605053	102	102	108
NATI18-W-20706	5/24/06	605053	100	100	108
NATI29-W-20901	5/24/06	605053	100	102	110
NATI18-W-20655	5/24/06	605053	100	102	110
NATI27-W-20905	5/24/06	605053	100	104	114
NATI18-W-20709	5/24/06	605053	100	102	108
NATI27-W-20700	5/24/06	605053	102	102	110
NATI28-W-20904	5/24/06	605053	102	100	110
NAQCTB-052306	5/24/06	605053	100	98	108
MBLKHD	5/31/06	605053	102	102	108
NATI18-W-20706RE	5/31/06	605053	104	100	96
NATI29-W-20901RE	5/31/06	605053	104	108	108
NATI18-W-20655RE	5/31/06	605053	102	109	110
MBLKHE	6/1/06	605053	106	96	102
NATI28-W-20904RE	6/1/06	605053	104	94	104

TABLE S4.9 (Cont.)

Sample	Analysis Date	SDG	Recovery[a] (%) Toluene-d_8	Bromofluoro-benzene	1,2-Dichloro-ethane-d_4
VBLKHD	5/31/06	605054	100	108	110
NAQCTB-052506	5/31/06	605054	100	108	110
NATI29-W-20916	5/31/06	605054	100	106	110
NATI30-W-20920	5/31/06	605054	98	106	110
NATI30-W-20712	5/31/06	605054	98	108	110
NATI20-W-20913	5/31/06	605054	98	110	112
NATI30-W-20919	5/31/06	605054	98	110	110

[a] Quality control ranges:

Compound	Range (%)
Toluene-d_8	88-110
Bromofluorobenzene	86-115
1,2-Dichloroethane-d_4	76-114

[b] Result outside quality control range.

TABLE S4.10 Comparison of organic results for verification analyses of groundwater samples collected during the 2006 investigation at Navarre, Kansas.

				AGEM Laboratory Results (µg/L)			ENVSY Results (µg/L)			Relative Percent Difference		
Location	Sample	Depth (ft below TOC)	Sample Date	Carbon Tetrachloride	Chloro-form	Methylene Chloride	Carbon Tetrachloride	Chloro-form	Methylene Chloride	Carbon Tetrachloride	Chloro-form	Methylene Chloride
L-2	NAL2-W-20190	80–90	4/6/06	0.2 J[a]	ND[b]	ND	ND	ND	1.3 JB[c]	NC[d]	–	–
TI-2	NATI2-W-20433	69–72	4/7/06	ND	ND	ND	ND	ND	2 JB	–	–	–
TI-3	NATI3-W-20298	32.2–37.2	4/7/06	27	7.9	ND	23	11	1.6 JB	16.0	32.8	–
TI-4	NATI4-W-20325	35–40	4/10/06	76	55	3.6	95	78	4.7 JB	22.2	34.6	NC
TI-13	NATI13-W-20563	35–40	5/5/06	387	197	0.6 J	330 E[e]	180	2.5 JB	15.9	9.0	
TI-13	NATI13-W-20562	42–47	5/5/06	116	60	1.2	130	73	2.9 JB	11.4	19.5	
TI-13	NATI13-W-20560	48–53	5/4/06	22	5.4	ND	16	5.2	2 JB	31.6	3.8	
TI-13	NATI13-W-20561	54–59	5/5/06	22	5.8	ND	18	5.6	2.2 JB	20.0	3.5	
TI-14	NATI14-W-20666	67.4–72.4	5/5/06	6	280	12.6	4 J	320	12	40.0	13.3	4.9
TI-18	NATI18-W-20655	30–35	5/21/06	266	27	1.1	390	39	4.1 JB	37.8	36.4	NC
TI-18	NATI18-W-20706	42–47	5/21/06	218	48	7.3	270	55	7.3 JB	21.3	13.6	NC
TI-18	NATI18-W-20709	56–61	5/21/06	70	35	1.5	110	44	4 JB	44.4	22.8	NC
TI-20	NATI20-W-20913	35–40	5/22/06	15	5.4	ND	15	5.5	3.7 JB	0.0	1.8	–
TI-27	NATI27-W-20700	49–54	5/20/06	2	0.7 J	ND	1.3 J	0.6 J	2.5 JB	42.4	15.3	–
TI-27	NATI27-W-20905[f]	56–61	5/21/06	ND	0.6 J	ND	1.6 J	ND	3 JB	NC	NC	–
TI-28	NATI28-W-20904	25–30	5/21/06	2692	238	1.3	3100	200	4.2 JB	14.1	17.4	NC
TI-29	NATI29-W-20916	25–30	5/23/06	39	39	2.6	38	35	6 B	2.6	10.8	NC
TI-29	NATI29-W-20901	39–44	5/21/06	239	86	3.8	220	77	5.8 B	8.3	11.0	NC
TI-30	NATI30-W-20920	39–44	5/23/06	1.1	0.4 J	ND	1.1 J	ND	3.3 JB	0	NC	–
TI-30	NATI30-W-20919	75–80	5/23/06	ND	ND	ND	ND	ND	3.9 JB	–	–	–
TI-30	NATI30-W-20712	83.5–88.5	5/24/06	ND	ND	ND	ND	ND	3.4 JB	–	–	–

a Qualifier J indicates an estimated concentration below the quantitation limit of 1.0 µg/L for analyses at the AGEM Laboratory or 5.0 µg/L for analyses by ENVSY.

b ND, not detected at the method detection limit.

c Qualifier B indicates that the contaminant was present in the laboratory blank.

d NC, not calculated.

e Qualifier E indicates a result outside the calibration range at DF1.

f Cross-contamination of sample NATI27-W-20905 might have occurred during shipment to ENVSY. This sample was shipped with sample NATI28-W-20904, which contained carbon tetrachloride at 3,104 µg/L.

Supplement 5:

Chain-of-Custody Forms and Outside Laboratory Data

Supplement 5 Contents

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: Navarre
SAMPLER(S) (Signature): B Nusbaum

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info: FDX 838923758142
ANL Field Contact (Name & Temporary Phone): Barney Nusbaum 630 319 6820
ANL-Jorge Alvarado 630 252 5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5 APR 06	NAMW01-W-20186	6	✓	✓								
5 APR 06	NAQCRI-W-20187	1	✓	✓								QC Rinsate
6 APR 06	NAMW02-W-20188	6	✓	✓								
	NAQCRI-W-20189	1	✓	✓								QC Rinsate
	NAL2-W-20190	6	✓	✓								
	NAQCRI-W-20191	1	✓	✓								QC RINSATE
	NAMW03-W-20192	6	✓	✓								
	NAQCRI-W-20193	1	✓	✓								QC RINSATE
	NAMW04-W-20194	6	✓	✓								
6 APR 06	NAQCRI-W-20196	1	✓	✓								QC RINSATE
	NAQCTB-W-20198	2	✓	✓								TRIP BLANK
	NAQCFB-W-20199	1	✓	✓								FIELD BLANK
6 APR 06	NAQCDU-W-20200	2	✓	✓								QC FIELD REPLICATE

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
B Nusbaum	6 APR 06	1630 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	04/07/06	9:10 am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4545

Chain 1 of 3 w/#4546 & 4102

MATRIX: Soil	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Silver Maxi
RECEIVING LAB: ARGONNE NATIONAL LAB		Shipping Info: Fedex 8389 2375 8131
PROJECT/SITE: NAVARRE, KS		ANL Field Contact (Name & Temporary Phone): Barney Nashold 6303196820
SAMPLER(S) (Signature)		ANL: Jorge Alvarado 630-252-7698

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
05 April 06	NATI2-S-20406	1	1										
"	NATI2-S-20407	1	1										
"	NATI2-S-20408	1	1										
"	NATI2-S-20409	1	1										
05 April 06	NATI2-S-20410	1	1										
"	NATI2-S-20411	1	1										
"	NATI2-S-20412	1	1										
05 April 06	NATI2-S-20413	1	1										
05 April 06	NATI2-S-20414	1	1										
06 April 06	NATI2-S-20415	1	1										
06 April 06	NATI2-S-20416	1	1										
06 April 06	NATI2-S-20417	1	1										
"	NATI2-S-20418	1	1										
"	NATI2-S-20419	1	1										
06 April 06	NATI2-S-20420	1	1										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	4-6-06	1454 Hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/7/06	9:30	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4546

Chain 2 of 3 w/# 4545 + 4102

MATRIX: Soil	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***
RECEIVING LAB: ARGONNE NATIONAL LAB	
PROJECT/SITE: NAVARRE, KANSAS	
SAMPLER(S) (Signature)	

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
06 April 06	NATI2-S-20421	1	1									
06 April 06	NATI2-S-20422	1	1									
06 April 06	NATI2-S-20423	1	1									
6 APR 06	NAQCTB-S-20197	1	1									SOIL TRIP BLANK
6 APR 06	NATI2-S-20424	1	1									(52')
6 APR 06	NATI2-S-20425	1	1									(54')

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	6 April 06	1454hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				04/07/06	9:30a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4102

Chain 3 of 3 w/#4545, 6

MATRIX: SOIL	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: Navarre		ANL Field Contact (Name & Temporary Phone): Lorraine Lutrumerie
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.5.06	NATI3-S-20286	1	X									6 ft BGS
4.5.06	NATI3-S-20287	1										10 ft BGS
4.5.06	NATI3-S-20289	1										32 ft BGS
4.6.06	NATI3-S-20290	1										36 ft BGS
4.6.06	NATI3-S-20291	1										37 ft BGS
4.6.06	NATI3-S-20292	1										40 ft BGS
4.6.06	NATI3-S-20293	1										44 ft BGS
4.6.06	NATI3-S-20294	1										48 ft BGS
4.6.06	NATI3-S-20295	1										22 ft BGS

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4/6/06	1454					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				04/07/06	9:30	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature) BWNashold

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No. Blue/Wht Med Clr
Shipping Info: Fedex 8509 1481 0375
ANL Field Contact (Name & Temporary Phone): Barney Nashold 630 3196820
ANL: Jorge Alvarado 630-252-5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
7 APR 06	NAT1-W-20201	6	✓										Hold 40ml environmental sample ~~for possible confirmation use~~, well T-1
	NAQCRI-W-20202	1	✓										QC Rinsate
	NAKDHE1-W-20203	6	✓										well KDHE1
	NAQCRI-W-20204	1	✓										QC Rinsate
	NAKDHE2-W-20205	6	✓										~~QC Rinsate~~ Bm KDHE2
7 APR 06	NAQCRI-W-20206	1	✓										QC RINSATE
7 APR 06	NAQCTB-W-20207	2	✓										QC TRIP
7 APR 06	NAT12-W-20432	3	✓										PRIORITY! ☆
7 APR 06	NAT13-W-20299	1	✓										RINSATE
7 APR 06	NAT13-W-20298	6	✓										PRIORITY! ☆

Bm

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNashold	7 APR 06	1630 HA					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	4/8/06	11am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

~~9.2 kg + 8.2 - 2.8 = 18.4 kg~~
~~2.8 kg~~
~~15.8~~
~~1.8~~ = ~~17.6 kg~~

4113

COC 1 of 2 w/ 4104

MATRIX: Soils	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No. Silver Maxi
RECEIVING LAB: ARGONNE NATIONAL LAB		Shipping Info: FDX 8509 14810386
PROJECT/SITE: NAVARRE KANSAS		ANL Field Contact (Name & Temporary Phone): Barney Nushold 630 319 6820 ANL = JORGE ALVARADO 630-252-5267
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
07 April 06	NATI2-S-20428	1	1									Recovery 2' core / LB Sampler
07 April 06	NATI2-S-20429	1	1									"
06 April 06	NATI2-S-20426	1	1									"
06 April 06	NATI2-S-20427	1	1									
7 Apr 06	NAQCTB-S-20208	1	1									QC TRIP BLANK

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	7 April 06	1455 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	4/8/06	11a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4104

COC 2 of 2 w/ # 4113

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB:		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.6.06	NATI3-S-20296	1	X									24.5 ft BGS
~~4.7.06~~ 4.7.06	NATI3-S-20297	1										25.5 ft BGS
4.7.06	NATI1-S-20300	1	X									2 ft BGS
4.7.06	NATI1-S-20301	1	X									6 ft BGS
4.7.06	NATI1-S-20302	1	X									7 ft BGS
4.7.06	NATI1-S-20303	1	X									9 ft BGS

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.7.06						

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	4/8/06	11a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

3518

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) BWMashold		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
7 APR 06	NAL3-W-20209	6	✓										
7 APR 06	NAQCRI-W-20210	1	✓										QC Rinse
8 APR 06	NAL1-W-20211	6	✓										
8 APR 06	NAQCRI-W-20212	1	✓										QC Rinse
8 APR 06	NAQCDU-W-20213	6	✓										QC DUPL
8 APR 06	NAQCTB-W-20214	2	✓										QC TRIP
8 APR 06	NANW1-W-20215	6	✓										
8 APR 06	NACOOP3-W-20218	6	✓										
8 APR 06	NACOOP1-W-20217	6	✓										
8 APR 06	NAQCDU-W-20225	3	✓										QC DUPL
8 APR 06	NAQCRI-W-20216	1	✓										QC RINSE
9 APR 06	NANW2-W-20219	6	✓										
7 Apr 06	NATI2-W-20433	6	✓										verification analysis needed
10 Apr 06	NATI4-W-20325	6	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	4.10.06	1230 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	4/11/06	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

HAOel

4109

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Argonne National Lab		Shipping Info:
PROJECT/SITE: Nauvoo, IL		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
10 April 06	NATI7-S-20436	1	1									
09 April 06	NATI7-S-20436	1	1									
09 April 06	NATI7-S-20437	1	1									
09 April 06	NATI7-S-20438	1	1									
09 April 06	NATI7-S-20439	1	1									
"	NATI7-S-20440	1	1									
"	NATI7-S-20441	1	1									
"	NATI7-S-20442	1	1									
"	NATI7-S-20443	1	1									
"	NATI7-S-20444	1	1									
"	NATI7-S-20445	1	1									
"	NATI7-S-20446	1	1									
"	NATI7-S-20447	1	1									
"	NATI7-S-20448	1	1									
09 April 06	NATI7-S-20449	1	1									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	4-10-06	1833 hrs					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/11/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
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4. It is in a designated secure area.

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ER-160 (4-01)

Page 2

4110

MATRIX: Soils

RECEIVING LAB: Argonne National Lab

PROJECT/SITE: Naperville KS

SAMPLER(S) (Signature): [illegible]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
09 April 06	NATI7-S-20450	1	1									
"	NATI7-S-20451	1	1									TB-20227
"	NATI7-S-20452	1	1									
"	NATI7-S-20453	1	1									
"	NATI7-S-20454	1	1									
09 April 06	NATI7-S-20455	1	1									
10 April 06	NATI7-S-20456	1	1									
10 April 06	NATI7-S-20457	1	1									
10 April 06	NATI7-S-20458	1	1									
10 April 06	NATI7-S-20459	1	1									
~~10 April 06~~	~~NATI7-S-2~~											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[illegible]	4-10-06	1433hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	4/11/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
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ER-160 (4-01)

4101

MATRIX: ~~WATER~~ SOIL	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB:		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) LISA LARSEN		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.7.06	NATI1-S-20304	1	X									18 ft BGS
4.8.06	NATI1-S-20305	1	X									20.5 ft BGS
4.8.06	NATI1-S-20306	1	X									31 ft BGS
4.8.06	NATI1-S-20307	1	X									31 ft BGS DUP.
4.8.06	NATI4-S-20308	1	X									2 ft BGS
4.8.06	NATI4-S-20309	1	X									6.75 ft BGS
4.8.06	NATI4-S-20310	1	X									9 ft BGS
4.8.06	NATI4-S-20311	1	X									14.5 ft BGS
4.8.06	NATI4-S-20312	1	X									17.7 ft BGS
4.8.06	NATI4-S-20313	1	X									20.5 ft BGS
4.9.06	NATI4-S-20314	1	X									25 ft BGS
4.9.06	NATI4-S-20315	1	X									31 ft BGS
4.9.06	NATI4-S-20316	1	X									29.2 ft BGS
4.9.06	NATI4-S-20317	1	X									34 ft BGS
4.9.06	NATI4-S-20318	1	X									34 ft BGS Dup

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4/11/06	1530 HL					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	4/11/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
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ER-160 (4-01)

MATRIX: Soil	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB:		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) Lisa Larsen		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
4.9.06	NATI4-S-20319	1	X										37 ft BGS
4.9.06	NATI4-S-20320	1	X										45.5 ft BGS
4.9.06	NATI4-S-20321	1	X										50 ft BGS
4.9.06	NATI4-S-20322	1	X										54 ft BGS
4.9.06	NATI4-S-20323	1	X										58 ft BGS
4.9.06	NATI4-S-20324	1	X										61 ft BGS
4.10.06	NATRIPBLANK-S-20226	1	X										—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4/11/06	1530 hrs					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	4/11/06	10a	Day 1

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: AGEM

PROJECT/SITE: NAUMRRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.10.06	NATI5-S-20326	1	X									2 ft BGS
4.10.06	NATI5-S-20327	1	X									5 ft BGS
4.10.06	NACP1-S-20328	1	X									7 ft BGS
4.10.06	NACP1-S-20329	1	X									9.1 ft BGS
4.10.06	NACP1-S-20330	1	X									14.8 ft BGS
4.10.06	NACP1-S-20331	1	X									24 ft BGS
4.11.06	NATI5-S-20332	1	X									9.7 ft BGS
4.11.06	NATI5-S-20333	1	X									13 ft BGS
4.11.06	NATI5-S-20334	1	X									17.2 ft BGS
4.11.06	NATI5-S-20335	1	X									22 ft BGS
4.11.06	NATI5-S-20356	1	X									25 ft BGS
4.11.06	NATI5-S-20357	1	X									25 ft BGS DUP
4.11.06	NATI5-S-20358	1	X									30 ft BGS
4.11.06	NATI5-S-20359	1	X									34 ft BGS
4.11.06	NATI5-S-20360	1	X									38 ft BGS

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.11.06	4:00pm					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	4/12/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: ASEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.11.06	NATI1-S-20464	1	X									Priority
4.11.06	NATI1-S-20465	1	X									~~Low~~ Priority
4.11.06	NATI1-S-20469	1	X									Priority
4.11.06	NATIS-S-20361	1	X									42 ft BGS
4.11.06	NATIS-S-20363	1	X									46 ft BGS
4.11.06	NAQCTB-S-20362	1	X									—
4.10.06	NATI8-S-20462	1	X									2 ft BGS

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.11.06	1600 AM					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	4/12/06	10 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: water	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGE		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.12.06	NATI5-W-20368	6	X									36-41 ft BGS
4.12.06	NATI4-W-20474	6	X									
4.11.06	NATI4-W-20469	6	X									
4.11.06	NATI4-W-20470	6	X									
4.12.06	NATI4-W-20472	4	X									
4.11.06	NATI4-W-20471	6	X									
4.12.06	NATI4-W-20473	2	X									
4.12.06	NAQCTB-W-20369	2	X									Trip Blank

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	4.17.2006	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/13/00	10 am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

3520

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: ACEM		Shipping Info:
PROJECT/SITE: NA-Bank		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4-13-06	NATIS-W-20371	6	X									49-54 ft
4-13-06	NATIS-W-20373	4	X									28-32 ft
4-13-06	NATIS-W-20372	1	X									R.W.
4-13-06	NAQCTB-W-20378											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4/13/06	1615					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	4/14/06	9:45am	T=40c

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Soils

RECEIVING LAB: ARGONNE

PROJECT/SITE: NAVARRE KS

SAMPLER(S) (Signature): [illegible]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
13 APRIL 06	NATII-S-20475	1	1										
"	NATII-S-20476	1	1										
13 APRIL 06	NATII-S-20477	1	1										
"	NATII-S-20478	1	1										
"	NATII-S-20479	1	1										
13 APRIL 06	NATII-S-20480	1	1										
	NATII-S-20481	1	1										
	NATII-S-20482	1	1										
	NATII-S-20483	1	1										
	NATII-S-20484	1	1										
	NATII-S-20485	1	1										
4.13.06	NATI3-S-20375	1	X										49.25 BGS
4.13.06	NATI3-S-20376	1	X										52.80 BGS
4.11.06	NATI5-S-20364	1	X										49.5 BGS
4.11.06	NATI5-S-20365	1	X										53 BGS

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[illegible]	4.13.06	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Abrams	4/14/06	9:45am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: AGEM

PROJECT/SITE: NAROM

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: COC										REMARKS
4.11.06	NATI5-S-20366	1	X										57.7ft BGS
4.11.06	NATI5-S-20367	1	X										61.7ft BGS
4.13.06	NAQCTB-S-20~~368~~377	1	X										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.13.06	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Abrams	4/10/06	9:48 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: AGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.13.06	NATI3-S-20379	1	X									56.5 ft
4.13.06	NATI3-S-20382	1	X									62 ft
4.13.06	NATI3-S-20380	1	X									56.50 ft Dup
4.13.06	NATI3-S-20381	1	X									60 ft
4.13.06	NATI1-S-20340	1	X									59.5 ft
4.13.06	NATI1-S-20336	1	X									51 ft
4.13.06	NATI1-S-20339	1	X									
4.13.06	NATI1-S-20337	1	X									
4.13.06	NAPCTB-S-20387	1	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.14.06	1200 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				4/17/06	9a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

3698

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
4.13.06	NATI1-W-20344	6	X										
4.13.06	NATI1-W-20342	6	X										
4.13.06	NATI1-W-20266	6	X										
4.13.06	NATI1-W-20343	6	X										
4.13.06	NATI1-W-20345	2	X										
4.13.06	NATI1-W-20341	6	X										
4.14.06	NATI3-W-20384	2	X										Dup
4.14.06	NAQCRIN-W-20386	1	X										
4.14.06	NATI3-W-20385	6	X										
4.14.06	NATI3-W-20383	6	X										
4.14.06	NATI4-W-20388	6	X										
4.14.06	NAQCTD-W-20389	2	X										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.14.06	~~1200 hr~~ 1430 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				4/16/06	11:20	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4706

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: ARGONNE NATIONAL LAB		Shipping Info:
PROJECT/SITE: NAVARRE, KS		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature): [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
20 April 06	NATI5-W-20267	6	6										Priority
	NATI5GC-W-20268	2	2										
20 April 06	NATI7-W-20269	6	6										Priority
	NATI7-W-20270	6	6										Priority
	NATI7-W-20271	6	6										
	NAQCTB-W-20487	1	1										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	20 April 06	1600					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/21/06	9:15 am	T = 4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: SOIL

RECEIVING LAB: AGEM

PROJECT/SITE: NAQARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.20.06	NATI6-S-20390	1	X									2 ft BGS
	NATI6-S-20391											6.5 ft BGS
	NATI6-S-20392											12.5 ft BGS
	NATI6-S-20393											17.8 ft BGS
	NATI6-S-20394											10 ft BGS
	NATI6-S-20395											21.2 ft BGS
	NATI6-S-20396											25 ft BGS
	NATI6-S-20397											28.8 ft BGS
	NATI6-S-20398											32.8 ft BGS
	NATI6-S-20399											37 ft BGS
	~~NATI6-S-20~~											
	NAQCTB-S-20486											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.20.06 ~~1600~~	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	4/21/06	9:15 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: Water

RECEIVING LAB: Argonne National Lab

PROJECT/SITE: Navarre, KS

SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
21 April 06	NATI7-W-20274	2	2									Priority ✓
20 April 06	NATI7-W-20273	6	6									Priority ✓
21 April 06	NATI2-W-20276	6	6									Priority ✓
21 April 06	NATI2-W-20277	6	6									Priority ✓
"	NATI2-W-20278	6	6									—
"	NATI2-W-20279	6	6									Priority ✓
"	NATI2-W-20280	2	2									—
21 April 06	NATI2-W-20281											
21 Apr 06	NATI7-W-20272	6	6									Priority ✓
21 Apr 06	NATI2-W-20282	4	4									Priority
21 Apr 06	NAQCTB-W-20347	2	2									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	21 April 06	1551 Hr.					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Candace Roe	04/22/06	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Soil	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.20.06	NATI6-S-20400	1	X									42 ft BGS
4.20.06	NATI6-S-20401											46 ft BGS
4.20.06	NATI6-S-20402											50 ft BGS
4.20.06	NATI6-S-20403											52 ft BGS
4.20.06	NATI6-S-20404											53.5 ft BGS
4.20.06	NATI6-S-20405											61 ft BGS
4.21.06	NATCTB-S-20346											T.B.

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.21.06	1600					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	4/24/06	9:15	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: WATER		**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***											Shipping Container No.	
RECEIVING LAB: AGE													Shipping Info:	
PROJECT/SITE: NAVARRE				ANALYSIS									ANL Field Contact (Name & Temporary Phone):	
SAMPLER(S) (Signature)		Number of containers	VOC										REMARKS	
DATE OF COLLECTION	SAMPLE ID NUMBER(S)													
4.21.06	NATI6-W-20348	6	X										49-54 ft	
4.22.06	NATI6-W-20349	6	X										58-63 ft	

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.22.06	1025 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				4/24/06	9:15 am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: Water

RECEIVING LAB: Argonne National Lab

PROJECT/SITE: Nasserve, Kansas

SAMPLER(S) (Signature): L. M. Greene

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
21 April 06	NATI9-W-20586	6	6									Priority
22 April 06	NATI9Qc-W-20588	2	2									— T.B.
22 April 06	NATI9-W-20587	6	6									Priority

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
L. M. Greene	22 April 06	1028 Hrs.					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jay Abrams	4/24/06	9:15 am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
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ER-160 (4-01)

Page 1 -

4712

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Argonne National Lab		Shipping Info:
PROJECT/SITE: Navarre, Kansas		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) L.M. Lotterei		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
22 April 06	NATI9-S-20283	1	1										
22 April 06	NATI9-S-20284	1	1										
	NATI9-S-20285	1	1										
	NATI9-S-20286	1	1										
	NATI9-S-20291	1	1										
	NATI9-S-20292		1										
	NATI9-S-20293	1	1										
	NATI9-S-20294	1	1										
22 April 06	NATI9-S-20295	1	1										
	NATI9-S-20296	1	1										
	NATI9-S-20597	1	1										
	NATI9-S-20598	1	1										
	NATI9-S-20599	1	1										
	NATI9-S-20600	1	1										
22 April 06	NATI9-S-20601	1	1										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
L.M. Lotterei	23 April 06	1800					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	4/25/06	9:20	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

Page 2

4713

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Argonne National Lab		Shipping Info:
PROJECT/SITE: Navarre, Kansas		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: Rad									REMARKS
23 April 06	NATI9-S-20602	1	1									
	NATI9-S-20603	1	1									
	NATI9-S-20604	1	1									
23 April 06	NATI9-S-20605	1	1									
	NATI9-S-20606	1	1									
	NATI9-S-20607	1	1									
23 April 06	NATI9-S-20608	1	1									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	23 Apr 06	1800					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/25/06	9:20	Dry Ice

Y	N	FOR LAB USE ONLY
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		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: AGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS: Depth
4.22.06	NATII1-S-20354	1	X										2 ft
4.22.06	NATII1-S-20355	1											5 ft
4.22.06	NATII1-S-20488	1											9 ft
4.22.06	NATII1-S-20489	1											13 ft
4.22.06	NATII1-S-20490	1											21 ft
4.22.06	NATII1-S-20491	1											17 ft
4.23.06	NATII1-S-20492	1											26 ft
4.23.06	NATII1-S-20493	1											29 ft
4.23-06	NATII1-S-20494	1											32.5 ft
4.23.06	NATII1-S-20495	1											38 ft
4.23.06	NATII1-S-20496	1											42 ft
4.23-06	NATII1-S-20497	1											45.3 ft
4.23.06	NATII1-S-20498	1											50 ft
4.24.06	NATTB-S-20716	1											—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.24.06	1600					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	4/25/06	9:20a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

MATRIX: Water

RECEIVING LAB: AGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.22.06	NATI6-W-20350	6										68-73 ft Priority
	NATI6-W-20351	6										68-73 ft Dup Priority
	NATI6RIN-W-20352	1										—
	NATI6-W-20353	4										38-43 ft
4.23-06	NATI11-W-20500	6										46.3-51.3 ft Priority
	NATI11-W-20501	2										46.3-51.3 ft Dup

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.24.06	1600					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Abraca	4/25/06	9:15am	TEAR

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: Water

RECEIVING LAB: Argonne National Lab

PROJECT/SITE: Nauvoo, KS

SAMPLER(S) (Signature): [illegible]

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: Voc									REMARKS
24 Apr 06	NATT9-W-20609	6	6									Priority
23 Apr 06	NATT9-W-20589	6	6									Priority
24 April 06	NAGCTB-W-20717	1	1									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[illegible]	24 Apr 06	1578					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	4/25/06	9:15am	T-4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

Page E1

4716

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: ARGONNE NAT LAB		Shipping Info:
PROJECT/SITE: NAVARRE, OH		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: Use									REMARKS
26 April 06	NATI10-S-20611	1	1									
26 April 06	NATI10-S-20612	1	1									
"	NATI10-S-20613	1	1									
"	NATI10-S-20614	1										
"	NATI10-S-20615	1	1									
"	NATI10-S-20616	1	1									
"	NATI10-S-20617	1	1									
26 April 06	NATI10-S-20618	1	1									
"	NATI10-S-20619	1	1									
"	NATI10-S-20620	1	1									
"	NATI10-S-20621	1	1									
"	NATI10-S-20622	1	1									
"	NATI10-S-20623	1	1									
"	NATI10-S-20624	1	1									
26 April 06	NATI10-S-20625	1	1									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	26 April 06	1600 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/27/06	9:45 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

Part 2 4717

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Argonne National Lab		Shipping Info:
PROJECT/SITE: NAVARRE, KANSAS		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
26 April 06	NATI10-S-20626	1	1										NATI10-S-20626
26 April 06	NATI10-S-20627	1	1										
26 April 06	NATI10-S-20636	1	1										
26 April 06	NATI10-S-20628	1	1										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	26 April 06	1604 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/27/06	9:45 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: Soil		**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***											Shipping Container No.
RECEIVING LAB: AGEM													Shipping Info:
PROJECT/SITE: NAUDRE				ANALYSIS									ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		Number of con-tainers	VOC										REMARKS
DATE OF COLLECTION	SAMPLE ID NUMBER(S)												
4.24.06	NATI11-S-20499	1											51.8
	NATI11-S-20502	1											52.9
	NATI11-S-20503												56.5
4.25.06	NATI11-S-20504												56.5 Dup
	NATI11-S-20505												60.5 Dup
4.26.06	NATI8-S-20507												2 ft
	NATI8-S-20508												5.5 ft
	NATI8-S-20509												10 ft
	NATI8-S-20510												13 ft
	NATI8-S-20511												16.5 ft
	NATI8-S-20512												17.75 ft
	NATI8-S-20513												19.5 ft
	NATI8-S-20515												
	~~NATI8-S-2~~ 4												
	NAQCTB-S-20519												

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.26.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jerry Alvarez	4/27/05	9:45 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4722

MATRIX:	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB:		Shipping Info:
PROJECT/SITE:		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
4.26.06	NATII1-W-20517	6	X										26-31
4.25.06	NATII1-W-20506	6	X										45-50
4.25.06	NATIID-W-20610	6	X										
4.26.06	NATIQCTB-W-20518	1	X										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	4.26.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/27/06	9:45a	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
4.26.06	NATI8-S-20516	1	X									31 ft
	NATI8-S-20520											36 ft
	NATI8-S-20521											40 ft
4.27.06	NATI8-S-20522											42.6 ft
	NATI8-S-20524											47 ft
	NATI8-S-20525											51 ft
	NATI8-S-20526											54.6 ft
	NATI8-S-20527											54.6 ft
	NATI8-S-20528											59.7 ft
	NATCTB-S-20529											Trip Blank

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	4.27.06	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	4/28/06	9:30 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

Note: Possible

Note: Check all for Hydrocarbons - Benzene.

4719

MATRIX: Water	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: Argonne National Lab		Shipping Info:
PROJECT/SITE: Navarre, KS		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
26 April 06	NATI10-W-20631 ✓	6	6									2 vials additionally to KDHE lab
27 April 06	NATI10-W-20632 ✓	6	6									
	NATI10GC-W-20633 ✓	2	2									No Rush
	NATI10-W-20634 ✓	6	6									
	NATI10-W-20635 ✓	6	6									
	~~NATI10-W-20636~~											[signature]
27 April 06	NATI10-W-20637 ✓	6	6									
27 April 06	NATI11-W-20638 ✓	6	6									
4.27.06	NATI11-W-20523 ✓	3	3									
	NA-QCTB-W-20726	1										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	1623 Hr.	27 April 06					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	4/28/06	9:30a	T = 4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Water

RECEIVING LAB: ARGONNE NAT. LAB

PROJECT/SITE: NAVARRE KS

SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
27 April 06	NATIII-W-20639	6	6										
28 April 06	NA TIR-W-20640	6	6										
28 April 06	NA TIS-W-20537	6	6										
~~27 April 06~~	~~NA TIII-W-20638~~	~~6~~	~~6~~										
28 April 06	NA TIS-W-20530	6	6										
28 Apr 06	NATIS-W-20641												45-50

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	28 April 06	1720 hr	[signature]	[signature]	1-May 06	1500	

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/02/06	9:45 am	T= 4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
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		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: Water
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature): Kelly Swan

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5-2-6	NAT112W20727	6	X									34-39
5-2-6	NAT12W20728	6										39.4-44.4
5-2-6	NAT12W20729	4										39.4-44.4 DUP
"	NATRCTBW20730	1										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Swan	5/2/6	1600					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	5/3/06	9:30	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4126

MATRIX: water

RECEIVING LAB: AGEM

PROJECT/SITE: Navarre

SAMPLER(S) (Signature): Kelly Munn

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5/2/6	NAT18W20731	6	X										64.6-69.6
5/2/6	NAT18W20732	6	X										54-59
5/3/6	NAOCTBW20733	1	X										Trip Blank

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Munn	5/3/6	5:00pm					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Olvera	5/4/06	9:45a	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: SOIL
RECEIVING LAB: AGEM
PROJECT/SITE: Nanakre
SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS
5/3/06	NATI12S20734	1	X	1'
5/3/06	NATI12S20735	1	X	5.5
5/3/06	NATI12S20736	1	X	9.5
5/3/06	NATI12S20737	1	X	13.5
5/3/06	NATI12S20738	1	X	16.5
5/3/06	NATI12S20739	1	X	21
5/3/06	NATI12S20740	1	X	21 Dup
5/3/06	NATI12S20741	1	X	24.25
5/3/06	NATI12S20742	1	X	29
5/3/06	NATI12S20743	1	X	30.5
5/3/06	NATI12S20744	1	X	33.25
5/3/06	NATI12S20745	1	X	34.5
5/3/06	NATI12S20746	1	X	37
5.3.06	NATCTB-S-20552	1	X	Trip Blank F

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/3/6	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/4/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: AGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: LOC									REMARKS
5-2-06	NATI13-S-20532	1	X									2
	NATI13-S-20533											4
	NATI13-S-20534											7
	NATI13-S-20535											10.7
	NATI13-S-20536											11.8
	NATI13-S-20537											14.6
	NATI13-S-20538											15.5
5-3-06	NATI13-S-20539											18.4
	NATI13-S-20540											19.1
	NATI13-S-20541											27
	NATI13-S-20542											28
	NATI13-S-20543											34.5
	NATI13-S-20544											36
	NATI13-S-20545											38
	NATI13-S-20546											40

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5-3-06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	5/4/06	9:45 a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: AGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.3.06	NATI13-S-20547	1	X									42.9
	NATI13-S-20548	1	X									47
	NAQCTB-S-20551	1	X									—
4.26.06	NATI10-S-20630	1	X									
	NATI10-S-20629	1	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.3.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	5/4/06	9:45	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4130

MATRIX: Soil	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No.
RECEIVING LAB: AGEM			Shipping Info:
PROJECT/SITE: DJAURRE		ANALYSIS	ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)			

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	VOC									REMARKS
5.2.06	NATI13-S-20549	1	X									50'
	NATI13-S-20550											51.5
	NATI13-S-20553											54.8
	NATI13-S-20554											58.9
5.4.06	NATI13-S-20557											22.8
	NATI13-S-20558											30.5

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.4.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				5/5/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: SOIL
RECEIVING LAB: AGEM
PROJECT/SITE: Navarre
SAMPLER(S) (Signature): Kelly Swan

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5/3/6	NAT112S20747	1	X										40.5
5/3/6	NAT112S20748	1	X										42.25
5/3/6	NAT112S20749	1	X										45
5/3/6	NAT112S20750	1	X										48.5
5/3/6	NAT112S20751	1	X										50.25
5/3/6	NAT112S20752	1	X										51
5/3/6	NAT112S20753	1	X										53.5
5/3/6	NAT112S20754	1	X										56.5
5/3/6	NAT112S20755	1	X										60
5/3/6	NAT112S20756	1	X										61.5
5/4/6	NAT[illegible] QCTBS20557	1	X										TB

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Swan	5/4/06	1450					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	5/5/06	10am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

4141

MATRIX: Water	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: ACEM		Shipping Info:
PROJECT/SITE: Navarre		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/4/6	NAT112W20757	6	X									52-57
5/4/6	NAT112W20758	6	X									63.68-68.68
5/4/6	NAQCTBW20759	1	X									Trip Blank
5/4/6	NAQCRINW20760	2	X									Bailer Rinse
5/4/6	NAT113W20555	6	X									66.82-71.82
5/4/6	NAT113W20556	6	X									66.82-71.82

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/4/6	1450					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/5/06	10am	T= 4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4131

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5.4.06	NATI13-W-20560	6											48-53
5.5.06	NATI13-W-20561	6											54-59
5.5.06	NATI13-W-20562	6											42-47
5.5.06	NATI13-W-20563	6											35.40
5.5.06	NATI14-W-20666	6											67.4-72.4
5.5.06	NAQCTB-W-20584	1											T.B.

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.5.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Edwards	05/06/06	10:00a	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: ~~Water~~ Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.5.06	NATI14-S-20656	1	X									2
	NATI14-S-20657	1										5
	NATI14-S-20658	1										7
	NATI14-S-20659	1										8.75
	NATI14-S-20660	1										9.5
	NATI14-S-20661	1										11.25
	NATI14-S-20662	1										12.5
	NATI14-S-20663	1										16.5
	NATI14-S-20664	1										20.75
	NATI14-S-20665	1										21.75
	NATI14-S-20667	1										24.25
	NATI14-S-20668	1										26.8
	NATI14-S-20669	1										29
	NATI14-S-20670	1										32.75
	NATI14-S-20671	1										35.25

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.5.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	05/06/06	10am	Day 1

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

0672

4134

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: Lab										REMARKS
5.5.06	NATZ14-S-20672	1	X										38
	NAQCTB-S-20583	1	X										—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.5.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jon Alvarez	5/6/06	10a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4133

MATRIX: Soil	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***		Shipping Container No.
RECEIVING LAB: AGEN			Shipping Info:
PROJECT/SITE: Navarre		ANALYSIS	ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)			

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS										REMARKS
5.5.06	NATI15-S-20566	1	X										1'
	NATI15-S-20567												5
	NATI15-S-20568												8.5
	NATI15-S-20569												12.4
	NATI15-S-20570												13
	NATI15-S-20571												17.7
	NATI15-S-20572												19
	NATI15-S-20573												21
	NATI15-S-20574												24.6
	NATI15-S-20575												26.1
	NATI15-S-20576												29
	~~NATI15-S-20577~~												
	NAQCTB-S-20582												—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5.5.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/5/06	10 am	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.6.06	NATI15-W-20761	6	X								✓	67.13-72.13 ✓
	NATI15-W-20762	6									✓	67.13-72.13 (DUP) ✓
	NATI14-W-20691	6									✓	47-52 (*) ✓
	NATI14-W-20692	6									✓	54-59
	NAQCTB-W-20694	1									✓	Trip Blank ✓
	NATI14-W-20693	6									✓	26-31 ✓
	NATI14-W-20695	6									✓	32-37 ✓
	NATI15-W-20763	6									✓	47-52 (*)
	NAQCRIN-W-20769	2									✓	Bailer Rinsate ✓
	NATI14-W-20768	6									✓	38-43 (*)
	NATI15-W-20764	6									✓	~~35-40~~ 40-45 ✓
	NATI15-W-20765	6									✓	35-40 ✓
5.8.06	NATI16-W-20789	6									✓	60-65
5.8.06	NATI15-W-20644	6									✓	15-20 ✓
	NATI16-W-20790	6									✓	66.5-71.9 not listed

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.8.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jon Albrecht	5/9/06	9:30am	Problems with sample labels + sample names. T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

4758

MATRIX: Water	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5.8.06	NAT117-W-20793	6	X									✓	32-37 vial mark as 794

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5.8.06	1700 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	5/9/06	9:30	Problem w/ sample labels + names.

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
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		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Soil
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.7.06	NATI16-S-20770	1	X									1.5
	NATI16-S-20771											3.5
	NATI16-S-20772											6
	NATI16-S-20773											9.25
	NATI16-S-20774											10
	NATI16-S-20775											11.5
	NATI16-S-20776											13.5
	NATI16-S-20777											16.5
	NATI16-S-20778											17.5
	NATI16-S-20779											21.25
	NATI16-S-20780											25
	NATI16-S-20781											28.75
	NATI16-S-20782											32.9
	NATI16-S-20783											36.5
	NATI16-S-20784											37.5

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.8.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	5/9/06	9:30	Dry Ice

Y	N	FOR LAB USE ONLY
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		Shipment was at required temperature when received.
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ER-160 (4-01)

16

4728

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5.7.06	NATI16-S-20785	1	X										42
	NATI16-S-20786												45
	NATI16-S-20787												49.8
	NATI16-S-20788												53
	NAQCTB-S-20795												T.B

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.8.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	5/9/06	9:30a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

1+17

4729

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.7.06	NATI17-S-20796	1	X									2.25
	NATI17-S-20797											5.10
	NATI17-S-20798											9.1
	NATI17-S-20799											13
	NATI17-S-20800											16.6
	NATI17-S-20801											17.4
	NATI17-S-20802											21
	NATI17-S-20803											24.75
	NATI17-S-20804											26.25
	NATI17-S-20805											28.5
	NATI17-S-20806											33
	NATI17-S-20807											37.5
	NATI17-S-20808											42
	NATI17-S-20809											45.5
	NATI17-S-20810											49.25

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5-7-06	1700 Hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Gibrance	5/9/06	9:30 a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

T 117

3765

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5.7.06	NAT117-S-20811	1	X										52.9
	NAT117-S-20812	1	X										56.5
	NAOCTB-S-20794	1	X										T.B

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.8.06	1700					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				5/9/06	9:30	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4143

MATRIX: Water
RECEIVING LAB: AGEM
PROJECT/SITE: Navarre
SAMPLER(S) (Signature): Kelly Amen

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/9/6	NAT117W20814	6	X									46-51
5/9/6	NAT116W20816	6	X									46-51
	NAT116W20817	6	X									32-37
	NAT116W20818	6	X									25-30
	NAT113W20819	6	X									25-30
	NAT113W20820	6	X									42-47
	NAT115W20821	6	X									15-20
	NAT115W20822	6	X									25-30
	NAT115W20823	6	X									25-30
	NAQCTBW20824	1	X									TB
	NAT117W20825	6	X									25-30
	NAT117W20826	6	X									39-44
	NAT117W20827	6	X									39-44 (A) ?
	NAT117W20828	6	X									60-65
	NAT117W20829	6	X									53-58

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Amen	5/9/6	435					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jim Alvarez	9/10/06	10am	T=4oc Some sample names are missing / Label problems

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

4144

MATRIX: water

RECEIVING LAB: AGEM

PROJECT/SITE: Navarre

SAMPLER(S) (Signature) Kelly Munn for Lisa Larsen

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5-8-6	NAT1164W20791	6	X									39-44 (#7 ?)

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Munn	5/9/6	435					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	9/10/06	10am	T=4°C Some sample names are missing ↓ Label problems

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.5.06	NATI14-S-20673	1	X									40.5
	NATI14-S-20674											44.5
	NATI14-S-20675											46.25
	NATI14-S-20686											49
5.6.06	NATI14-S-20687											52.75
	NATI14-S-20688											56.25
	NATI14-S-20689											57.75
	NATI14-S-20690											61.25
5.5.06	NATI15-S-20577											33.5
	NATI15-S-20578											34.6
	NATI15-S-20579											37.5
	NATI15-S-20580											41.5
	NATI15-S-20581											45
	NATI15-S-20585											51.9
	NATI15-S-20564											52.5

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.9.6						

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	9/10/06	10 am	Day IR

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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1. It is in your possession; or,
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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

4731

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.6.06	NATI15-S-20765	1	X									57.1
	NATI15-S-20766	1	X									60.75
	NAQC TB-S-20767	1	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.9.6						

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Cabrera	9/10/06	10am	Dey IG

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

3521

MATRIX: Water

RECEIVING LAB: AGEM

PROJECT/SITE: Navarre

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/9/6	NAT122W20830	6	X									46-51
5/10/6	NAT118W20831	6	X									35-40
5/10/6	NAT118W20832	4 ~~6~~ vs	X									Duplicate (35-40)
5/10/6	NAT122W20833	6	X									32-37
5/10/6	NAT122W20834	6	X									39-44
5/10/6	NAT122W20835	6	X									Duplicate (39-44)
5/10/6	NAT122W20836	6	X									56-58
5/10/6	NAT~~13~~ QCRINW20837	2	X									Bailer Rinse
5/10/6	NAT124W20838	6	X									39-44
5/10/6	NAT124W20839	6	X									Duplicate (39-44)
5/10/6	NAT122W20846	6	X									68.25-71.25
5/10/6	NAT122W20847	6	X									Duplicate
5/10/6	NAT122W20840	6	X									60-65
5/10/6	NAT124W20841	6	X									
5/10/6	NAT124W20842	6	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Ann	5/10/6	425					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joy Alvarez	9/11/06	10am	T=4c

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4145

MATRIX: water

RECEIVING LAB: AGM

PROJECT/SITE: Navarre

SAMPLER(S) (Signature): Kelly Munn

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/10/6	NAT124W20843	6	X									
5/10/6	NAT123W20844	6	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Munn	5/10/6	4:26p					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	9/4/06	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Water
RECEIVING LAB: AGEM
PROJECT/SITE: Navarre
SAMPLER(S) (Signature): Kelly Dunn / Bob Sedivy

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS
5/10/6 ✓	NAT124W20845	4	X	
5/10/6 ✓	NAT123W20856	6	X	
5/10/6 ✓	NAT123W20857	6	X	TT-23 (NAT123W20857)
5/10/6 ✓	NAT124W20858	6	X	TT-24 (NAT124W20858)
5/10/6 ✓	NAT123W20859	6	X	
5/11/6 ✓	NAT124W20860	5	X	
5/11/6 ✓	NAT123W20861	6	X	
5/11/6 ✓	NAT123W20862	6	X	
5/11/6 ✓	NAT119W20863	6	X	
5/11/6 ✓	NAT119W20864	6	X	
5/11/6 ✓	NAT123W20865	6	X	
5/11/6 ✓	~~NAT12~~ NAQCTB20866	6	X	NAQCTB20866
5/11/6 ✓	NAT121W20867	6	X	
5/11/6 ✓	NAT119W20868	6	X	
5/11/6 ✓	NAT119W20869	6	X	

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Dunn	5/11/6	1640					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	05/12/06	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4149

MATRIX: Water	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: Navarre		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) B Seeding Kelly Gunn		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/11/6	NAT119W20870	6	X									
5/11/6	NAT119W20871	6	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Gunn	5/11/6	1640					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	5/12/06	10am	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: Water
RECEIVING LAB: AGEM
PROJECT/SITE: Navarre
SAMPLER(S) (Signature): Kelly Munn

ARGONNE NATIONAL LABORATORY
CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/11/6	NAT119W20872	6	X									
5/11/6	NAQCTBW20873	2	X									
5/11/6	NAQCRINW20874	2	X									
5/11/6	NAT125W20875	6	X									
5/11/6	NAT125W20876	6	X									
5/11/6	NAT126W20877	6	X									
5/11/6	NAT125W20878	6	X									
5/11/6	NAT121W20879	6	X									
5/11/6	NAT121W20880	6	X									
5/11/6	NAT121W20881	6	X									
5/11/6	NAT121W20882	6	X									
5/11/6	NAT126W20883	6	X									
5/11/6	NAT125W20884	6	X									
5/11/6	NAT121W20885	6	X									
5/11/6	NAT121W20228	4	X									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Munn	5/12/6	1130					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	05/13/06	10:45a	T=4°C May 13th, 2006

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: Navarre
SAMPLER(S) (Signature): Kelly Dunn

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/11/6	NAT121W20229	6	X									✓
5/11/6	NAT121W20230	6	X									✓
5/11/6	NAT119W20231	6	X									✓
5/12/6	NAT125W20232	6	X									✓
5/12/6	NAT126W20233	6	X									✓
5/12/6	NAQCRNW20234	2	X									✓
5/12/6	NAT125W20235	6	X									✓
5/12/6	NAT126W20718	6	X									✓
5/12/6	NAT126W20719	6	X									✓
5/12/6	NAT125W20720	6	X									✓
5/12/6	NAT126W20721	4	X									✓
5/12/6	NAT125W20722	6	X									✓
5/12/6	NAT126W20723	6	X									✓
5/12/6	NAQCTBW20724	2	X									✓

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Kelly Dunn	5/12/6	1130					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Edwards	05/13/06	10:45a	T= 4°C May 13th, 2006

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

4723

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: ASEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.18.06	NATI28-S-20236	1	X									9 ft
	NATI28-S-20237											13 ft
	NATI28-S-20238											14.75 ft
	NATI28-S-20239											17.7 ft
	NATI28-S-20240											20.5 ft
	NATI28-S-20241											22.5 ft
	NATI28-S-20242											25.2 ft
	NATI28-S-20243											28.9 ft
	NATI18-S-20256											5 ft
	NATI18-S-20257											9 ft
	NATI18-S-20258											13 ft
	NATI18-S-20259											16.5 ft
	NATI18-S-20260											20.8 ft
	NAQCTB-S-20263											—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.18.06	1700 AR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				5/19/06	9:45a	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Water

RECEIVING LAB: AGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5-19.06	NATI28-W-20255	6	X										58-63 ft
	NATI28-W-20254	6											58-63 ft Dup
	NATI28-W-20647	6											63.03-68.03
	~~NATI28-W-20646~~												
	NAQCRN-W-20648	2											Bailer Rinsate
	NATI27-W-20680	4											25-30 ft
	NAQCTB-W-20682	1											Trip Blank
	NATI28-W-20683	6											51-56 ft
	NATI27-W-20684	6											35-40 ft

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5-19.06	1100hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				5/20/06	1200	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

1 of 2

4724

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC	REMARKS	
5.18.06	NATI28-S-20244	1	X	37.75 ft	667
	NATI28-S-20245			32.75 ft Dup	356
	NATI28-S-20247			41 ft	20
	NATI28-S-20248			42.5 ft	16
	NATI28-S-20246			37 ft	227
	NATI28-S-20249			45 ft	4.7
5.19.06	NATI28-S-20250			49 ft	9.2
	NATI28-S-20251			52.25 ft	0.4
	NATI28-S-20252			56.5 ft	0.4
	NATI28-S-20253			61.75 ft	0.9
5.19.06	NATI18-S-20265			29 ft	25
	NATI18-S-20676			33.5 ft	77
	NATI18-S-20677			37 ft	182
	NATI18-S-20678			41 ft	846
	NATI18-S-20679			41 ft Dup	783

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.19.06	1700 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[illegible]	5/20/06	1200	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

2 of 2
4725

MATRIX: Soil	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAWARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5-19-06	NAQCTB-S-20681	1	X										Trip Blank 0.2

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5-19-06	1700 hr					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Water
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.20.06	NATI28-W-20849	5										37-42 ft
	NATI28-W-20850	6										44-49 ft
	NATI28-W-20851	6										32-37 ft
	NATI27-W-20699	6										42-47 ft
	NATI27-W-20700	6										49-54 ft
	NATI27-W-20701	6										49-54 ft Dup
	NAQCTB-W-20702	1										Trip Blank — VIAL BROKE
	NATI27-W-20704	6										30-35 ft

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.20.06	1100					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarado	5/22/06	9:20a	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
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ER-160 (4-01)

MATRIX: Soil
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: U06									REMARKS
5.19.06	NATI28-S-20691	1	X									6.7ft
	NATI29-S-20698											6.7ft
	NATI29-S-20855											8.5 7ft
	NATI29-S-20697											10.5 7ft
	NATI29-S- 20703											13.5 7ft
	NATI29-S- 20705											16.5 7ft
	NATI29-S- 20886											24.5 7ft
	NATI29-S-20887 ✓											26.5 7ft
	NATI29-S-20888											29.4 7ft
	NATI29-S-20889											34 7ft
	NATI29-S-20890											38 7ft
	NATI29-S-20891											42 7ft
	NATI29-S-20892											45.5 7ft
	NATI29-S-20893											49.5 7ft
	NATI29-S-20894											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.22.06	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/23/06	9:30	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Soil

RECEIVING LAB: NGEM

PROJECT/SITE: NAVARRE

SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: Lot									REMARKS
5-21-06	NATI29-S-20896	1	X									57 ft
	NATI29-S-20897	1	X									62 ft
	NATI29-S-20898	1	X									62 ft Dup
	NAQCTB-S-20899	1	X									Trip Blank
	NATI18-S-20651	1	X									45 ft
	NATI18-S-20652	1	X									53 ft
	NATI18-S-20653	1	X									57 ft
	NATI18-S-20654	1	X									61 ft
	NATI29-S-20956	1	X									15.5 ft

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.22.06	1600 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/23/06	9:30	Dry Ice

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.21.06	NATI29-W-20900	6	X									39-44 ft
	NATI29-W-20901	6										39-44 ft Dup
	NATI29-W-20902	6										46-51 ft
	NATI29-W-20903	3										~~46~~ 53-58 ft
	NATI28-W-20904	6										25-30 ft
	NATI27-W-20905	6										56-61 ft
5.20.06	NATI27-W-20649	6										66.25-71.25 ft
5.20.06	NAQCTB-W-20650	1										Trip Blank
5.21.06	NATI29-W-20906	6										60-65 ft
	NATI29-W-20907	6										66.3-69.3 ft
	NATIRIN-W-20908	2										Bailer Rinsate
	NATI18-W-20706	6										42-47 ft
	NATI18-W-20707	6										49-54 ft
	NATI18-W-20709	6										56-61 ft
	NATI18-W-20710	6										56-61 ft Dup

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.22.06	1700 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarez	5/23/06	09:30	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: WATER
RECEIVING LAB: AGEM
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.22.06	NAT118-W-20711	6	X									66.5-71.5 ft
5.22.06	NAT129-W-20909	6	1									32-37 ft
5.21.06	NAT118-W-20655	6										30-35 ft

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.22.06	1700 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
				5/23/06	9:25a	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: Water
RECEIVING LAB: AGEM
PROJECT/SITE: NAVSTORE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.23.06	NATI30-W-20911 ✓	6	X									53-58 ft
5.22.06	NATI20-W-20913 ✓	1										35-40 ft
5.23.06	NATI20-W-20912 ✓	3										42-47 ft
	NATI20-W-20914 ✓	5										56-61 ft
	NATI30-W-20915 ✓	6										43.8-48.8 ft
	NATI29-W-20916 ✓	6										25-30 ft
	NATI30-W-20917 ✓	6										75-80 ft
	NATI30-W-20919 ✓	6										75-80 ft Dup
	NATI30-W-20918 ✓	6										60-65 ft
	NATI30-W-20920 ✓	6										39-44 ft
	NATI18-W-20921 ✓	4										25-30 ft
	NATI20-W-20922 ✓	6										72-77 ft
	NATI20-W-20923 ✓	6										72-77 ft Dup
	NATICRIN-W-20924 ✓	2										Bailer Rinsate
	NAQCTB-W-20925 ✓	2										Trip Blank

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5-23-06	1700 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/24/06	930	

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

3766

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS										REMARKS
5.24.06	NATI30-W-20712	6											83.5 - 88.5
	NATI20-W-20713	4											42-47
	NATOCTB-W-20714	2											Trip Blk

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.24.06	1600HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Joyce Alvarez	5/25/06	9:45c	T=4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
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ER-160 (4-01)

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: AGEM		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature)		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5.24.06.	NATI31-W-20935	6 ✓	6									70.7-75.7 ft
	NATI31-W-20936	6 ✓	6									70.7-75.7 Dup
	NATI31-W-20937	6 ✓	6									60-65 ft
	NATI31-W-20938	6 ✓	6									53-58 ft
	NATI30-W-20939	4 ✓	4									32-37 ft
5-23-06	NA-ANDER1-W-20941	4 ✓	4									Anderson P.W. - 1150 HR
5.23.06	NA-ANDER2-W-20942	4 ✓	4									Anderson P.W. - 1530 HR
5.24.06	NA-ANDER3-W-20943	4 ✓	4									ANDERSON P.W. - 1145 HR
	NAQCTB-W-20944	2 ✓	2									Trip BLK
5-25-06	NANW3-W-20945	6 -	6									
5-25-06	NATI30-W-20946	6 -	6									
5-25-06	NATI31-W-20947	6	6									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
	5.25.06	1400					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Jorge Alvarado	5/26/06	10 am	T= 4°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med tall Ret Wxt
RECEIVING LAB: AGEM		Shipping Info: 8389-2375-9[illegible]44
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone): Barney Nuskold 630-252-76[illegible]
SAMPLER(S) (Signature) BWNuskold		ANL CONTACT = Jorge Alvarado 630-252-5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
7 APR 06	NATI3-W-20298	2	✓										
10 APR 06	NATI4-W-20325	2	✓										
7 APR 06	NATI2-W-20433	2	✓										
6 APR 06	NAL2-W-20190	2	✓										
11 APR 06	NAQCTB-W-11APR06	2	✓										TRIP BLANK

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNuskold	11 APR 06	1500 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Barbara Croot	4/12/06	9 45	Temp 2°C

Y	N	FOR LAB USE ONLY
Y		Custody seal was intact when shipment received.
Y		Sample containers were intact when received.
Y		Shipment was at required temperature when received.
Y		Sample labels, Tags and COC agree.

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ER-160 (12-94)

MATRIX: WATER
RECEIVING LAB: Envirosystems.
PROJECT/SITE: AGEM / NAVARRE
SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs	REMARKS
5/5/06	NA-TI13-W-20561	2-40mL	✓	
5/4/06	NA-TI13-W-20560	"	✓	
6/5/06	NA TI14-W-20666	"	✓	
5/5/06	NA-TI13-W-20563	"	✓	
5/5/06	NA-TI13-W-20562	"	✓	
5/7/06	NA-QCTB-05/07/06	"	✓	

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/8/06						

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/09/06	10:10 a.m.	Cooler Temp 2°c

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: Envirosystems		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) R Lafumiere		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC										REMARKS
5/21/06	NA-TI18-W-20706	2-40mL	✓										
"	NA-TI29-W-20901	"	✓										
"	NA-TI18-W-20655	"	✓										
"	NA-TI27-W-20905	"	✓										
5/21/06	NA-TI18-W-20709	"	✓										
5/20/06	NA TI27-W-20700	"	✓										
5/21/06	NA-TI28-W-20904	"	✓										
5/23/06	NA-052306	"	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Jorge Alvarado	5/23/06	10a	Barbara Crook		5/24/06	10:00	

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
						Temperature 2°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

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ER-160 (4-01)

4030

000004

MATRIX: WATER	ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*	Shipping Container No.
RECEIVING LAB: ENVIRO SYSTEMS		Shipping Info:
PROJECT/SITE: NAVARRE, KS		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) L. LAFRENIERE		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs										REMARKS
05/25/06	NA-QCTB-052506	2-40mL	✓										
05/23/06	NA-TI29-W-20916	"	✓										
05/23/06	NA-TI30-W-20920	"	✓										
05/24/06	NA-TI30-W-20712	"	✓										1 VIAL BROKEN.
05/23/06	NA-TI 20-W-20913	"	✓										
05/23/06	NA-TI 30-W-20919		✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Jorge Alvarado	5/25/06	11:30					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Paul Lerch	5/26/06	12:00	1 VIAL BROKEN- WA-TI-30 W-7012

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
	✓	Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

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ER-160 (4-01)

MATRIX: soil - methanol

RECEIVING LAB: STL - Burlington

PROJECT/SITE: Navarre

SAMPLER(S) (Signature) Lafuniere

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC's	Volume (MeOH)	REMARKS: Mass (grams)
04/17/06	NA-S-20308 (10A) R	1	✓	10mL	10.958
	NA-S-20454 (30A) R	1	✓	10mL	10.990
	NA-S-20453 (10A) G	1	✓	10mL	13.895
	NA-S-20408 (10A) Bk	1	✓	10mL	11.164
	NA-S-20303 (10A) B	1	✓	10mL	11.044
	NA-S-20311 (20A) R	1	✓	10mL	11.715
	NA-S-20476 (10A) Bk	1	✓	10mL	12.617
	NA-S-20330 (3A) Bk	1	✓	10mL	11.839
	NA-S-20413 (25A) Bk	1	✓	10mL	11.643
	NA-S-20295 (20A) Bk	1	✓	10mL	12.202
	NA-MeOH blank	1	✓	10mL	—
	NA-S-20340 (9A) B	1		10mL	9.653
	NA-S-20358 (30A) G	1		10mL	11.926

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	07/18/06	3pm					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/20/06	0920	

Y	N	FOR LAB USE ONLY
	✓	Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
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3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: MeOH-Soil
RECEIVING LAB: STL
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS										REMARKS
May 2, 06	NA-S-20527-9A												WT. of soil 11.054
May 2, 06	NA-S-20511-10A												" 10.496
May 2, 06	NA-S-20603-30A												" 10.549
May 2, 06	NA-S-20620-20A												" 9.603
May 2, 06	NA-S-20390-10A												" 9.482
May 2, 06	NA-S-20496-10A												" 11.096
May 2, 06	NA-S-20607-20A												" 9.769
May 2, 06	NA-S-Blank												

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/02/06	11:15am	[signature]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5-8-06	0930	

Y	N	FOR LAB USE ONLY
	N/A	Custody seal was intact when shipment received.
X		Sample containers were intact when received.
	X	Shipment was at required temperature when received. 14°C
X		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

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ER-160 (4-01)

MATRIX: Soil- Methanol	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: STL-Burlington		Shipping Info:
PROJECT/SITE: NAUHERF		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) R. Patrenieno		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS	REMARKS: Volume MeOH	REMARKS: Mass of Soil (g)
06/08/06	NA-S- 20636 (30A)	1-20mL		10mL	12.875
	NA-S- 20735 (10A)				9.759
	NA-S- 20538 (20A)				9.467
	NA-S- 20750 (9A)				9.820
	NA-S- 20541 (30)				8.384
	NA-S- 20575 (21A)				11.248
	NA-S- 20545 (27)				10.113
	NA-S- 20664 (10A)				13.256
	NA-S- 20543 (14)				7.519
	MeOH Blank				—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Joyce Colorado	5/8/06	12:00	[illegible]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
M. Turpin	05/08/06	11:58				

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

MATRIX: Soil - MeOH	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: STL - Burlington		Shipping Info:
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) [signature]		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs	REMARKS: Volume of MeOH (mL)	REMARKS: Weight (g)
05/16/06	NA-S - 20673 (1)	1-20mL	✓	10mL	11.859
	NA-S - 20[redacted]578 (20A)		✓		9.009
	NA-S - 20808 (10A)		✓		9.658
	NA-S - 20773 (30A)		✓		7.304
	NA-S - 20783 (20A)		✓		9.064
	NA-S - 20689 (10A)		✓		9.871
	MeOH Blank		✓		

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/19/06	9am					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
[signature]	05/18/06	9:32AM	[signature]	5/19/06	1020	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

May 31, 2006

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Research Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, ER-203
Argonne, Illinois 60439

RE: ENVSY Report 0605051

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on April 12th and 17th, 2006 for volatile organics analysis by US EPA CLP SOW OLM04.3

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare, Ph.D
President/CEO

MK/sp

1. Narrative

SDG NARRATIVE

LABORATORY NAME: ENVIROSYSTEMS, INC.

CLIENT: Argonne National Laboratory

DATA SAMPLES RECEIVED AT LABORATORY: April 12th and 17th, 2006

SAMPLE ANALYSES INCLUDED IN THIS REPORT:

CLIENT #	LAB ID#	ANALYSIS	MATRIX	VOA Ph
NATI3-W-20298	0060407-01	VOA	WATER	7
NATI4-W-20325	0060407-02	VOA	WATER	7
NATI2-W-20433	0060407-03	VOA	WATER	7
NAL2-W-20190	0060407-04	VOA	WATER	7
NAQCTB-W-11APR06	0060407-05	VOA	WATER	7
WA-2-11-16891	0060418-01	VOA	WATER	7
WA-5A-11-16892	0060418-02	VOA	WATER	7
WA-5E-11-16893	0060418-03	VOA	WATER	7
WA-9-16894	0060418-04	VOA	WATER	7
WA-DUP-16885	0060418-05	VOA	WATER	7
WA-10-16896	0060418-06	VOA	WATER	7
WA-11-16897	0060418-07	VOA	WATER	7
WA-12-16898	0060418-08	VOA	WATER	7
WA-FB-0411064	0060418-09	VOA	WATER	7

No Matrix spike/matrix spike duplicate analysis was performed for this case. Sample number WA-FB-0411064 was not spiked with the internal standard making this sample non-reportable.

Samples for this SDG are analyzed by EPA SOW OLMO4.3 for multi-media multi-concentration organics. Sample detection limits have been modified to meet client requirements.

The cooler temperature was measured to be 2 and 6 degrees c for samples received on April 12th and 17th respectively.

The volatile analysis was performed on a Agilent 5975 GC/MS using a Restek RTX-624 20 meter column with an inner diameter of 0.18mm and a 1 micron film thickness. The trap used with the autosampler is a 0.3 cm OD x 28.5 cm L ENCON Ambient Packed Trap.

Most of the samples have at least one surrogate recovery out of the quality control range. Also, one of the samples, WA-11-16897 had all three internal standards slightly lower than the quality control limits.

Mohan Khare

Mohan Khare, PhD.

DATE: 5/30/06

30 May 30, 2006

2. SGD Cover Sheet/Traffic Reports

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No. Med tall Red Wnt
RECEIVING LAB: AGEM		Shipping Info: 8389-2375-9[redacted]44
PROJECT/SITE: NAVARRE		ANL Field Contact (Name & Temporary Phone): Burney Nushold 630-252-76[redacted]
SAMPLER(S) (Signature) BWNushold		ANL CONTACT = Jorge Alvarado 630-252-5267

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
7 APR 06	NATI3-W-20298	2	✓									
10 APR 06	NATI4-W-20325	2	✓									
7 APR 06	NATI2-W-20433	2	✓									
6 APR 06	NAL2-W-20190	2	✓									
11 APR 06	NAQCTB-W-11APR06	2	✓									TRIP BLANK

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
BWNushold	11 APR 06	1500 HR					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Barbara Croot	4/12/06	9 45	Temp 2°C

Y	N	FOR LAB USE ONLY
Y		Custody seal was intact when shipment received.
Y		Sample containers were intact when received.
Y		Shipment was at required temperature when received.
Y		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (12-94)

VOLATILE SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NATI3-W-20298

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_1

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	1.6	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	11	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	23	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NATI3-W-20298

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_1

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NATI3-W-20298

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_1

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NATI4-W-20325

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_2

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	4.7	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	78	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	95	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NATI4-W-20325

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_2

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NATI4-W-20325

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_2

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NATI2-W-20433

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_3

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	4.1	J
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.0	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NATI2-W-20433

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_3

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NATI2-W-20433

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_3

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NAL2-W-20190

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_4

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	1.3	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NAL2-W-20190

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_4

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NAL2-W-20190

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_4

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NAQCTB-W
-11APR06

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_5

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	1.6	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NAQCTB-W
-11APR06

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_5

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NAQCTB-W
-11APR06

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: ARG0406 SAS No.: SDG No.: ARG0406

Matrix: (soil/water) WATER Lab Sample ID: 0060407-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 0000087_5

Level: (low/med) LOW Date Received: 04/12/06

% Moisture: not dec. _____ Date Analyzed: 04/20/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

June 6, 2006

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Research Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, ER-203
Argonne, Illinois 60439

RE: ENVSYS Report 0606053

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on May 24, 2006 for volatile organics analysis by US EPA CLP SOW OLM04.3

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare, Ph.D
President/CEO

MK/sp

1. Narrative

SDG NARRATIVE

LABORATORY NAME: ENVIROSYSTEMS, INC.

CLIENT: Argonne National Laboratory REPORT # 0606053

DATA SAMPLES RECEIVED AT LABORATORY: MAY 24TH, 2006

SAMPLE ANALYSES INCLUDED IN THIS REPORT:

CLIENT #	LAB ID#	ANALYSIS	MATRIX	VOA Ph
NA-TI18-W-20706	0060511-01	VOA	WATER	7
NA-TI29-W-20901	0060511-02	VOA	WATER	7
NA-TI18-W-20655	0060511-03	VOA	WATER	7
NA-TI27-W-20905	0060511-04	VOA	WATER	7
NA-TI18-W-20709	0060511-05	VOA	WATER	7
NA-TI27-W-20700	0060511-06	VOA	WATER	7
NA-TI28-W-20904	0060511-07	VOA	WATER	7
NA-052306	0060511-08	VOA	WATER	7

Matrix spike/matrix spike duplicate analysis was not performed for this case.

The following samples had to be diluted due to concentrations exceeding the upper calibration range: NA-TI18-W-20706, NA-TI29-W-20901, NA-TI18-W-20655, and NA-TI28-W-20904.

Samples for this SDG are analyzed by EPA SOW OLMO4.3 for multi-media multi-concentration organics. Sample detection limits have been modified to meet client requirements.

The cooler temperature was measured to be 2 degrees Celsius upon receipt

The volatile analysis was performed on an Agilent 5975 GC/MS using a Restek RTX-624 20 meter column with an inner diameter of 0.18mm and a 1 micron film thickness. The trap used with the autosampler is a 0.3 cm OD x 28.5 cm L ENCON Ambient Packed Trap.

Three compounds did not meet the initial calibration criteria. Percent RSD for bromomethane and bromoform were greater than 20.5 and the response factor for 1,1,2,2 tetrachloroethane was below the minimum required. The continuing calibration VSTD050HW, VSTD050HD, and VSTD050HE had three compounds with percent D values greater than 25.0.

All other QC criteria were met for all samples included in this report.

Mohan Khare

Mohan Khare, PhD.

DATE: 6/5/06

05th JUNE, 2006

2. SGD Cover Sheet/Traffic Reports

MATRIX: WATER
RECEIVING LAB: Envirosystems
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature): R Lafumiere

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC									REMARKS
5/21/06	NA-TI18-W-20706	2-40mL	✓									
"	NA-TI29-W-20901	"	✓									
"	NA-TI18-W-20655	"	✓									
"	NA-TI27-W-20905	"	✓									
5/21/06	NA-TI18-W-20709	"	✓									
5/20/06	NA TI27-W-20700	"	✓									
5/21/06	NA-TI28-W-20904	"	✓									
5/23/06	NA-052306	"	✓									

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Joyce Alvarado	5/23/06	10a	Barbara Crook		5/24/06	10 00	

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
						Temperature 2°C

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

VOLATILE SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-
W-20706HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC065

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	4.4	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	55	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	240	E
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-
W-20706HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC065

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI18-
W-20706HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC065

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	1.66	6.8	J
2.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-W-20706

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-01RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC113

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	7.3	JB
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	55	
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	270	
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-W-20706

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-01RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC113

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	5.6	J
1330-20-7	Xylene (Total)	14	
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI18-W-20706

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-01RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC113

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.66	21	J
2. 620-14-4	BENZENE, 1-ETHYL-3-METHYL-	10.21	13	NJ
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI29-
W-20901HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC066

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	5.8	B
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	75	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	230	E
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI29-
W-20901HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC066

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI29-
W-20901HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC066

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI29-W-20901

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-02RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC114

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	8.6	JB
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	77	
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	220	
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI29-W-20901

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-02RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC114

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	4.3	J
1330-20-7	Xylene (Total)	11	
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI29-W-20901

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-02RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC114

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.66	11	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-W-20655HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC067

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	4.1	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	39	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	420	E
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-
W-20655HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC067

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI18-
W-20655HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC067

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 91-20-3	NAPHTHALENE	13.24	7.6	NJ
2.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-W-20655

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-03RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC115

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	25	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	25	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	25	U
79-20-9	Methyl Acetate	25	U
75-09-2	Methylene Chloride	16	JB
156-60-5	trans-1,2-Dichloroethene	25	U
1634-04-4	Methyl tert-Butyl Ether	25	U
75-34-3	1,1-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
78-93-3	2-Butanone	25	U
67-66-3	Chloroform	39	
71-55-6	1,1,1-Trichloroethane	25	U
110-82-7	Cyclohexane	25	U
56-23-5	Carbon Tetrachloride	390	
71-43-2	Benzene	25	U
107-06-2	1,2-Dichloroethane	25	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-W-20655

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-03RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC115

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	25	U
108-87-2	Methylcyclohexane	25	U
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-Pentanone	25	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	25	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	8.9	J
1330-20-7	Xylene (Total)	23	J
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropylbenzene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI18-W-20655

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-03RE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC115

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI27-
W-20905HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC068

Level: (low/med) LOW Date Received: 05/24/10

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.0	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	1.6	J
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI27-W-20905HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC068

Level: (low/med) LOW Date Received: 05/24/10

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI27-
W-20905HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC068

Level: (low/med) LOW Date Received: 05/24/10

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-
W-20709HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-05-NA

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC069

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	4.0	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	44	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	110	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI18-
W-20709HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-05-NA

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC069

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI18-
W-20709HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-05-NA

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC069

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	1.65	5.2	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI27-
W-20700HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC070

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.5	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	0.59	J
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	1.3	J
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI27-
W-20700HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC070

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI27-
W-20700HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC070

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI28-
W-20904HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-07

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC071

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	4.2	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	210	E
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	1800	E
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI28-W-20904HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-07

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC071

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI28-
W-20904HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-07

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC071

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI28-W-20104

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-07RE2HE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC133

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 06/01/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 40.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	200	U
74-87-3	Chloromethane	200	U
75-01-4	Vinyl Chloride	200	U
74-83-9	Bromomethane	200	U
75-00-3	Chloroethane	200	U
75-69-4	Trichlorofluoromethane	200	U
75-35-4	1,1-Dichloroethene	200	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	200	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	200	U
79-20-9	Methyl Acetate	200	U
75-09-2	Methylene Chloride	150	JB
156-60-5	trans-1,2-Dichloroethene	200	U
1634-04-4	Methyl tert-Butyl Ether	200	U
75-34-3	1,1-Dichloroethane	200	U
156-59-2	cis-1,2-Dichloroethene	200	U
78-93-3	2-Butanone	200	U
67-66-3	Chloroform	200	
71-55-6	1,1,1-Trichloroethane	200	U
110-82-7	Cyclohexane	200	U
56-23-5	Carbon Tetrachloride	3100	
71-43-2	Benzene	200	U
107-06-2	1,2-Dichloroethane	200	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI28-W-20104

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-07RE2HE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC133

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 06/01/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 40.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	200	U
108-87-2	Methylcyclohexane	200	U
78-87-5	1,2-Dichloropropane	200	U
75-27-4	Bromodichloromethane	200	U
10061-01-5	cis-1,3-Dichloropropene	200	U
108-10-1	4-Methyl-2-Pentanone	200	U
108-88-3	Toluene	200	U
10061-02-6	trans-1,3-Dichloropropene	200	U
79-00-5	1,1,2-Trichloroethane	200	U
127-18-4	Tetrachloroethene	200	U
591-78-6	2-Hexanone	200	U
124-48-1	Dibromochloromethane	200	U
106-93-4	1,2-Dibromoethane	200	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	200	U
1330-20-7	Xylene (Total)	200	U
100-42-5	Styrene	200	U
75-25-2	Bromoform	200	U
98-82-8	Isopropylbenzene	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
541-73-1	1,3-Dichlorobenzene	200	U
106-46-7	1,4-Dichlorobenzene	200	U
95-50-1	1,2-Dichlorobenzene	200	U
96-12-8	1,2-Dibromo-3-chloropropane	200	U
120-82-1	1,2,4-Trichlorobenzene	200	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI28-W-20104

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-07RE2HE

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC133

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 06/01/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 40.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-052306HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-08

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC072

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.0	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	1.5	J
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-052306HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-08

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC072

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-052306HW

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0511W SAS No.: SDG No.: AR0511W

Matrix: (soil/water) WATER Lab Sample ID: 0060511-08

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC072

Level: (low/med) LOW Date Received: 05/24/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

June 6, 2006

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Sciences Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, EV-203-A137
Argonne, Illinois 60439

RE: ENVSYS Report 0606054

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on May 26, 2006 for volatile organics analysis by US EPA CLP SOW OLM04.3

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare

Mohan Khare, Ph.D
President/CEO

MK/sp

1. Narrative

~~00248~~

001 PL 6/6/06

SDG NARRATIVE

LABORATORY NAME: ENVIROSYSTEMS, INC.

CLIENT: ARGONNE NATIONAL LABORATORY

DATA SAMPLES RECEIVED AT LABORATORY: MAY 26th, 2006

SAMPLE ANALYSES INCLUDED IN THIS REPORT:

CLIENT #	LAB ID#	ANALYSIS	MATRIX	VOA pH
NA-QCTB-052506	0060512-01	VOA	WATER	7
NA-TI29-W-20916	0060512-02	VOA	WATER	7
NA-TI30-W-20920	0060512-03	VOA	WATER	7
NA-TI30-W-20712	0060512-04	VOA	WATER	7
NA-TI20-W-20913	0060512-05	VOA	WATER	7
NA-TI30-W-20919	0060512-06	VOA	WATER	7

Matrix spike/matrix spike duplicate analysis was not performed for this case.

Samples for this SDG are analyzed by EPA SOW OLMO4.3 for multi-media multi-concentration organics. Sample detection limits have meet client requirements.

The cooler temperature was measured to be the required temperture upon receipt. One vial NA-TI30-W-20712 was received broken at the laboratory. Sufficient sample was available to perform VOC analysis.

The volatile analysis was performed on an Agilent 5975 GC/MS using a Restek RTX-624 20 meter column with an inner diameter of 0.18mm and a 1 micron film thickness. The trap used with the autosampler is a 0.3 cm OD x 28.5 cm L ENCON Ambient Packed Trap.

Three compounds did not meet the initial calibration criteria. Percent RSD for bromomethane and bromoform were greater than 20.5 and the response factor for 1,1,2,2 tetrachloroethane was below the minimum required. Continuing calibration VSTD050HD had two compounds with percent D values greater than 25 and one compound not meeting the required RRF of 0.300.

All other QC criteria were met for all samples included in this report.

Mohan Khare

Mohan Khare, PhD.

DATE: 6/6/06

06th JUNE 2006

2. SGD Cover Sheet/Traffic Reports

4030

00004

MATRIX: WATER	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: ENVIRO SYSTEMS		Shipping Info:
PROJECT/SITE: NAVARRE, KS		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) L. LAFRENIERE		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs										REMARKS
05/25/06	NA-QCTB-052506	2-40mL	✓										
05/23/06	NA-TI29-W-20916	"	✓										
05/23/06	NA-TI30-W-20920	"	✓										
05/24/06	NA-TI 30-W-20712	"	✓										1 VIAL BROKEN.
05/23/06	NA-TI 20-W-20913	"	✓										
05/23/06	NA-TI 30-W-20919		✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Jorge Alvarado	5/25/06	11:30					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			Paul Lerch	5/26/06	12:00	1 VIAL BROKEN- NA-TI-30 W-7012

Y	N	FOR LAB USE ONLY
✓		Custody seal was intact when shipment received.
	✓	Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

VOLATILE SAMPLE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-QCTB-052506

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0526 SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC120

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.1	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-QCTB-052506

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC120

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-QCTB-052506

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC120

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI29-W-20916

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0526 SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC121

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	33	
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	6.0	B
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.4	
67-66-3	Chloroform	35	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	38	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI29-W-20916

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC121

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI29-W-20916

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC121

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI30-W-20920

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0526 SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC122

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.3	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	1.1	J
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI30-W-20920

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC122

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI30-W-20920

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC122

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI30-W-20712

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0526 SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC123

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	26	
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.4	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI30-W-20712

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC123

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI30-W-20712

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC123

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	1.65	7.3	J
2.	115-11-7	1-PROPENE, 2-METHYL-	2.02	5.6	NJ
3.	75-07-0	ACETALDEHYDE	2.24	14	NJ
4.	123-72-8	BUTANAL	4.98	10	NJ
5.	110-62-3	PENTANAL	6.68	13	NJ
6.	66-25-1	HEXANAL	8.24	58	NJ
7.	124-13-0	OCTANAL	10.90	8.1	NJ
8.	124-19-6	NONANAL	12.07	8.3	NJ
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI20-W-20913

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0526 SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC124

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.7	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.5	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	15	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI20-W-20913

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC124

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI20-W-20913

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC124

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI30-W-20919

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0526 SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC125

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	3.9	JB
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI30-W-20919

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC125

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI30-W-20919

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: SAS No.: SDG No.: AR0512W

Matrix: (soil/water) WATER Lab Sample ID: 0060512-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HC125

Level: (low/med) LOW Date Received: 05/26/06

% Moisture: not dec. _____ Date Analyzed: 05/31/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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30.				

ENVIROSYSTEMS, INC.

9200 Rumsey Road • Suite B102 • Columbia, Maryland 21045-1934
Phone (410) 964-0330 • Fax (410) 740-9306
Email: info@envsystems.com • Webpage: www.envsystems.com/envsys

June 12, 2006

Jorge S. Alvarado, Ph.D
Argonne National Laboratory
Environmental Sciences Division
Applied Geoscience and Environmental
Management Section
9700 South Cass Avenue, EV-203-A137
Argonne, Illinois 60439

RE: ENVSYS Report 0606057

Dear Jorge:

Enclosed is the Analytical Data Package for the samples received on May 09, 2006 for volatile organics analysis by US EPA CLP SOW OLM04.3

Please do not hesitate to call me if you have any questions, comments, or require additional information.

Sincerely,

Mohan Khare, Ph.D
President/CEO

MK/pl

1. Narrative

SDG NARRATIVE

LABORATORY NAME: ENVIROSYSTEMS, INC.

CLIENT: ARGONNE NATIONAL LABORATORY

DATA SAMPLES RECEIVED AT LABORATORY: MAY 09th, 2006

SAMPLE ANALYSES INCLUDED IN THIS REPORT:

CLIENT #	LAB ID#	ANALYSIS	MATRIX	VOA pH
NA-TI13-W-20561	0060504-01	VOA	WATER	7
NA-TI13-W-20560	0060504-02	VOA	WATER	7
NA-TI14-W-20666	0060504-03	VOA	WATER	7
NA-TI13-W-20563	0060504-04	VOA	WATER	7
NA-TI13-W-20562	0060504-05	VOA	WATER	7
NA-QCTB-05/07/06	0060504-06	VOA	WATER	7

Matrix spike/matrix spike duplicate analysis was not performed for this case.

Samples NA-TI14-W-2066 and NA-TI13-W-20563 had to be diluted due to a target compound(s) exceeding the maximum calibration standard. The surrogate spike Bromofluorobenzene did not meet the required recovery on the first run for any sample.

Samples for this SDG are analyzed by EPA SOW OLMO4.3 for multi-media multi-concentration organics. Sample detection limits have meet client requirements.

The cooler temperature was measured to be two degrees Celsius upon arrival.

The initial volatile analysis were performed on a HP5973 GC/MS using a Restek 624 20 meter column with an inner diameter of 0.18mm and a 1.0 micron film thickness. The trap used with the autosampler is a OI analytical trap packed with Tenax/silica gel/cms. The second analysis for dilution runs were performed on an Agilent 5975 GC/MS using a Restek RTX-624 20 meter column with an inner diameter of 0.18mm and a 1.0 micron film thickness. The trap used with the autosampler is a 0.3 cm OD x 28.5 cm L ENCON Ambient Packed Trap.

Three compounds did not meet the first initial calibration criteria. Percent RSD for 1,2,4 Trichlorobenzen was greater than 20.5 and the response factor for 1,1,2,2 tetrachloroethane and 1,3-Dichlorobenzene was below the minimum required. Three compounds did not meet the second initial calibration criteria. Percent RSD for Bromomethane was greater than 20.5 and the response factor for Bromoform and for 1,1,2,2 tetrachloroethane were below the required criteria. Continuing calibration VSTD050FK had two compounds not meeting the required minimum RRF. Continuing calibration VSTD050HP had one compound that exceed the 25.0 percent D and one compound that was below the minimum required RRF of 0.300.

All other QC criteria were met for all samples included in this report.

Mohan Khare

Mohan Khare, PhD.

DATE: 6/8/06

06th JUNE 2006

2. SGD Cover Sheet/Traffic Reports

MATRIX: WATER
RECEIVING LAB: Envirosystems.
PROJECT/SITE: AGEM / NAVARRE
SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs										REMARKS
5/5/06	NA-TI13-W-20561	2-40mL	✓										
5/4/06	NA-TI13-W-20560	"	✓										
5/5/06	NA TI14-W-20666	"	✓										
5/5/06	NA-TI13-W-20563	"	✓										
5/5/06	NA-TI13-W-20562	"	✓										
5/7/06	NA-QCTB-05/07/06	"	✓										

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/8/06						

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5/09/06	10:10 a.m.	Cooler Temp 2°c

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

VOLATILE SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20561

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF638

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.2	J
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.6	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	18	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20561

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF638

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI13-W-20561

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-01

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF638

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20560

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF639

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.0	J
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.2	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	16	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20560

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF639

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI13-W-20560

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-02

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF639

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.23	5.8	J
2.					
3.					
4.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI14-W-20666

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF640

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	12	
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	240	E
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	4.0	J
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI14-W-20666

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF640

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI14-W-20666

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-03

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF640

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.18	6.4	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI14-
W-20666DL

Lab Name: ENVIROSYSTEMS, INC. Contract: KCI

Lab Code: ENVSYS Case No.: KCI0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-03DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HD010

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/17/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	19	D
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	320	D
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	4.4	DJ
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-
W-20666DL

Lab Name: ENVIROSYSTEMS, INC. Contract: KCI

Lab Code: ENVSYS Case No.: KCI0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-03DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HD010

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/17/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI13-
W-20666DL

Lab Name: ENVIROSYSTEMS, INC. Contract: KCI

Lab Code: ENVSYS Case No.: KCI0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-03DL

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HD010

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/17/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20563

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF641

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.5	J
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	180	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	330	E
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20563

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF641

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI13-W-20563

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF641

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.22	6.2	J
2.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-
W-20563DL

Lab Name: ENVIROSYSTEMS, INC. Contract: KCI

Lab Code: ENVSYS Case No.: KCI0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HD011

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/17/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	7.9	DJ
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	160	D
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	150	D
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20563DL

Lab Name: ENVIROSYSTEMS, INC. Contract: KCI

Lab Code: ENVSYS Case No.: KCI0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HD011

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/17/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI13-
W-20563DL

Lab Name: ENVIROSYSTEMS, INC. Contract: KCI

Lab Code: ENVSYS Case No.: KCI0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-04

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AG75HD011

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/17/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20562

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF642

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.9	J
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	73	
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	130	
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-TI13-W-20562

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF642

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-TI13-W-20562

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-05

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF642

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-QCTB-
05/07/06

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF643

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon Disulfide	5.0	U
79-20-9	Methyl Acetate	5.0	U
75-09-2	Methylene Chloride	2.2	J
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon Tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NA-QCTB-
05/07/06

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF643

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NA-QCTB-
05/07/06

Lab Name: ENVIROSYSTEMS, INC. Contract: ARGONNE

Lab Code: ENVSYS Case No.: AR0504 SAS No.: SDG No.: AR0504

Matrix: (soil/water) WATER Lab Sample ID: 0060504-06

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: H73FF643

Level: (low/med) LOW Date Received: 05/09/06

% Moisture: not dec. _____ Date Analyzed: 05/13/06

GC Column: RTX-624 ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.18	6.0	J
2.				
3.				
4.				
5.				
6.				
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27.				
28.				
29.				
30.				

SEVERN TRENT STL®

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248
www.stl-inc.com

May 3, 2006

Mr. Clyde Dennis
Argonne National Laboratory
9700 S. Cass Avenue
Building 203, Office B149
Argonne, IL 60439

Re: Laboratory Project No. 21005
Case: NAVARRE; SDG: 113901

Dear Mr. Dennis:

Enclosed are the analytical results for the samples that were received by STL Burlington on April 20th, 2006. Laboratory identification numbers were assigned, and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 04/20/06 ETR No: 113901		
666620	NA-S-20308	04/17/06	MEOH
666621	NA-S-20454	04/17/06	MEOH
666622	NA-S-20453	04/17/06	MEOH
666623	NA-S-20408	04/17/06	MEOH
666624	NA-S-20303	04/17/06	MEOH
666625	NA-S-20311	04/17/06	MEOH
666626	NA-S-20476	04/17/06	MEOH
666627	NA-S-20330	04/17/06	MEOH
666628	NA-S-20413	04/17/06	MEOH
666629	NA-S-20295	04/17/06	MEOH
666630	NA-MEOH BLANK	04/17/06	MEOH
666631	NA-S-20340		MEOH
666632	NA-S-20358		MEOH

Documentation of the condition of the samples at the time of their receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Sample Handling section of this submittal.

The samples were analyzed by Method 8260B, using a low-level calibration. In performing the analytical work, 500 microliters of the methanol extract were added to the 5 milliliter purge volume. In each analysis having 500 microliters of methanol, the recovery of one of the surrogate controls, 1,2-dichlorobenzene-d_4, was low. The recovery values generally ranged between 60 and 70 percent. Additionally, the recovery of bromofluorobenzene was elevated in certain of the analyses. There was good internal standard stability in each of the analyses associated with the sample set. Two types of laboratory control sample analyses were performed as part of the analytical sequence. One was performed to evaluate method performance, and one was

performed with 500 microliters of methanol added to the purge volume in order to characterize the affect on the analytical process. The target analytes were recovered well in each of the laboratory control sample analyses that defined the method performance. In the laboratory control sample analysis with methanol, several of the earlier eluting compounds did exhibit lower recoveries, as did several of the later eluting compounds. Most profoundly affected was the performance of 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, naphthalene, and 1,2,3-trichlorobenzene, for which the recovery values were below 10 percent. Chloroform and carbon tetrachloride were recovered well in each of the laboratory control sample analyses. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the instrument blank that was analyzed in association with the samples was free of contamination. The laboratory did provide for the analysis of a method blank with the addition of 500 microliters of methanol, however the methanol that was used was not from the same lot as that was used in the extraction of the samples.

If there are any questions regarding this submittal, please contact me at (802) 655-1203.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to the requirements specified in the NELAC standard. Release of the data contained in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

Sincerely,

Kirk Young
Project Manager

KFY/hsf
Enclosure

STL Burlington Data Qualifier Definitions

Organic

U: Compound analyzed but not detected at a concentration above the reporting limit.

J: Estimated value.

N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.

P: SW-846: Greater than 40% difference for detected concentrations between two GC columns. Unless otherwise specified the higher of the two values is reported on the Form I.

CLP SOW: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified the lower of the two values is reported on the Form I.

C: Pesticide result whose identification has been confirmed by GC/MS.

B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.

E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.

D: Concentrations identified from analysis of the sample at a secondary dilution.

A: Tentatively identified compound is a suspected aldol condensation product.

X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

E: Reported value is estimated due to the presence of interference.

N: Matrix spike sample recovery is not within control limits.

* Duplicate sample analysis is not within control limits.

B: The result reported is less than the reporting limit but greater than the instrument detection limit.

U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P ICP-AES
MS ICP-MS
CV Cold Vapor AA
AS Semi-Automated Spectrophotometric

MATRIX: soil - methanol

RECEIVING LAB: STL - Burlington

PROJECT/SITE: Navarre

SAMPLER(S) (Signature) Lafrenière

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.

Shipping Info:

ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOCs	Volume (MeOH)	REMARKS: Mass (grams)
04/17/06	NA-S-20308 (10A) R	1	✓	10mL	10.958
	NA-S-20454 (30A) R	1	✓	10mL	10.990
	NA-S-20453 (10A) G	1	✓	10mL	13.895
	NA-S-20408 (10A) Bk	1	✓	10mL	11.164
	NA-S-20303 (10A) B	1	✓	10mL	11.044
	NA-S-20311 (20A) R	1	✓	10mL	11.715
	NA-S-20476 (10A) Mk	1	✓	10mL	12.617
	NA-S-20330 (30A) Bk	1	✓	10mL	11.839
	NA-S-20413 (20A) Or	1	✓	10mL	11.643
	NA-S-20295 (20A) Bk	1	✓	10mL	12.202
	NA-MeOH blank	1	✓	10mL	—
	NA-S-20340 (9A) B	1		10mL	9.653
	NA-S-20358 (30A) G	1		10mL	11.926

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	07/18/06	3pm					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	4/20/06	0920	

Y	N	FOR LAB USE ONLY
	✓	Custody seal was intact when shipment received.
✓		Sample containers were intact when received.
✓		Shipment was at required temperature when received.
✓		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

SEVERN TRENT STL

METHOD 8260B

VOLATILE ORGANIC ANALYSIS

SAMPLE DATA SUMMARY PACKAGE

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666630

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 666630

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	3.2	J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	3.7	J
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	11	
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	190	
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666630

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 666630

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	500	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	3.0	J
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	3.2	J
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666630

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 666630

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20295

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666629

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 666629

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.3	U
74-87-3	Chloromethane	8.3	U
75-01-4	Vinyl Chloride	8.3	U
74-83-9	Bromomethane	3.5	J
75-00-3	Chloroethane	8.3	U
75-69-4	Trichlorofluoromethane	8.3	U
107-02-8	Acrolein	41	U
75-35-4	1,1-Dichloroethene	8.3	U
76-13-1	Freon TF	8.3	U
67-64-1	Acetone	41	U
74-88-4	Methyl Iodide	2.9	J
75-15-0	Carbon Disulfide	8.3	U
107-05-1	Allyl Chloride	8.3	U
75-09-2	Methylene Chloride	8.3	U
107-13-1	Acrylonitrile	8.3	U
156-60-5	trans-1,2-Dichloroethene	8.3	U
1634-04-4	Methyl-t-Butyl Ether	8.3	U
540-59-0	1,2-Dichloroethene (total)	8.3	U
75-34-3	1,1-Dichloroethane	8.3	U
108-05-4	Vinyl Acetate	8.3	U
126-99-8	Chloroprene	8.3	U
594-20-7	2,2-Dichloropropane	8.3	U
156-59-2	cis-1,2-Dichloroethene	8.3	U
78-93-3	2-Butanone	41	U
107-12-0	Propionitrile	33	U
74-97-5	Bromochloromethane	8.3	U
126-98-7	Methacrylonitrile	8.3	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.3	U
71-55-6	1,1,1-Trichloroethane	8.3	U
56-23-5	Carbon Tetrachloride	8.3	U
563-58-6	1,1-Dichloropropene	8.3	U
71-43-2	Benzene	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20295

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666629

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 666629

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	420	U
107-06-2	1,2-Dichloroethane	8.3	U
79-01-6	Trichloroethene	8.3	U
78-87-5	1,2-Dichloropropane	8.3	U
74-95-3	Dibromomethane	8.3	U
80-62-6	Methyl Methacrylate	8.3	U
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.3	U
110-75-8	2-Chloroethyl Vinyl Ether	8.3	U
10061-01-5	cis-1,3-Dichloropropene	8.3	U
108-10-1	4-Methyl-2-pentanone	41	U
108-88-3	Toluene	8.3	U
10061-02-6	trans-1,3-Dichloropropene	8.3	U
97-63-2	Ethyl Methacrylate	8.3	U
79-00-5	1,1,2-Trichloroethane	8.3	U
127-18-4	Tetrachloroethene	8.3	U
142-28-9	1,3-Dichloropropane	8.3	U
591-78-6	2-Hexanone	41	U
124-48-1	Dibromochloromethane	8.3	U
106-93-4	1,2-Dibromoethane	8.3	U
108-90-7	Chlorobenzene	8.3	U
630-20-6	1,1,1,2-Tetrachloroethane	8.3	U
100-41-4	Ethylbenzene	8.3	U
1330-20-7	Xylene (m,p)	8.3	U
95-47-6	Xylene (o)	8.3	U
1330-20-7	Xylene (total)	8.3	U
100-42-5	Styrene	8.3	U
75-25-2	Bromoform	8.3	U
98-82-8	Isopropylbenzene	8.3	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.3	U
108-86-1	Bromobenzene	8.3	U
79-34-5	1,1,2,2-Tetrachloroethane	8.3	U
96-18-4	1,2,3-Trichloropropane	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20295

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666629

Sample wt/vol: 12.0 (g/mL) G Lab File ID: 666629

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.3	U
103-65-1	n-Propylbenzene	8.3	U
95-49-8	2-Chlorotoluene	8.3	U
106-43-4	4-Chlorotoluene	8.3	U
108-67-8	1,3,5-Trimethylbenzene	8.3	U
98-06-6	tert-Butylbenzene	8.3	U
95-63-6	1,2,4-Trimethylbenzene	8.3	U
135-98-8	sec-Butylbenzene	8.3	U
541-73-1	1,3-Dichlorobenzene	8.3	U
99-87-6	4-Isopropyltoluene	8.3	U
106-46-7	1,4-Dichlorobenzene	8.3	U
95-50-1	1,2-Dichlorobenzene	8.3	U
104-51-8	n-Butylbenzene	8.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.3	U
120-82-1	1,2,4-Trichlorobenzene	8.3	U
87-68-3	Hexachlorobutadiene	8.3	U
91-20-3	Naphthalene	8.3	U
87-61-6	1,2,3-Trichlorobenzene	8.3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20303

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666624

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666624

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.1	U
74-87-3	Chloromethane	2.0	J
75-01-4	Vinyl Chloride	9.1	U
74-83-9	Bromomethane	5.2	J
75-00-3	Chloroethane	9.1	U
75-69-4	Trichlorofluoromethane	9.1	U
107-02-8	Acrolein	45	U
75-35-4	1,1-Dichloroethene	9.1	U
76-13-1	Freon TF	9.1	U
67-64-1	Acetone	45	U
74-88-4	Methyl Iodide	4.7	J
75-15-0	Carbon Disulfide	9.1	U
107-05-1	Allyl Chloride	9.1	U
75-09-2	Methylene Chloride	9.1	U
107-13-1	Acrylonitrile	9.1	U
156-60-5	trans-1,2-Dichloroethene	9.1	U
1634-04-4	Methyl-t-Butyl Ether	9.1	U
540-59-0	1,2-Dichloroethene (total)	9.1	U
75-34-3	1,1-Dichloroethane	9.1	U
108-05-4	Vinyl Acetate	9.1	U
126-99-8	Chloroprene	9.1	U
594-20-7	2,2-Dichloropropane	9.1	U
156-59-2	cis-1,2-Dichloroethene	9.1	U
78-93-3	2-Butanone	25	J
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.1	U
126-98-7	Methacrylonitrile	9.1	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.1	U
71-55-6	1,1,1-Trichloroethane	9.1	U
56-23-5	Carbon Tetrachloride	9.1	U
563-58-6	1,1-Dichloropropene	9.1	U
71-43-2	Benzene	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20303

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666624

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666624

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	450	U
107-06-2	1,2-Dichloroethane	9.1	U
79-01-6	Trichloroethene	9.1	U
78-87-5	1,2-Dichloropropane	9.1	U
74-95-3	Dibromomethane	9.1	U
80-62-6	Methyl Methacrylate	9.1	U
123-91-1	1,4-Dioxane	450	U
75-27-4	Bromodichloromethane	9.1	U
110-75-8	2-Chloroethyl Vinyl Ether	9.1	U
10061-01-5	cis-1,3-Dichloropropene	9.1	U
108-10-1	4-Methyl-2-pentanone	45	U
108-88-3	Toluene	9.1	U
10061-02-6	trans-1,3-Dichloropropene	9.1	U
97-63-2	Ethyl Methacrylate	9.1	U
79-00-5	1,1,2-Trichloroethane	9.1	U
127-18-4	Tetrachloroethene	9.1	U
142-28-9	1,3-Dichloropropane	9.1	U
591-78-6	2-Hexanone	45	U
124-48-1	Dibromochloromethane	9.1	U
106-93-4	1,2-Dibromoethane	9.1	U
108-90-7	Chlorobenzene	9.1	U
630-20-6	1,1,1,2-Tetrachloroethane	9.1	U
100-41-4	Ethylbenzene	9.1	U
1330-20-7	Xylene (m,p)	9.1	U
95-47-6	Xylene (o)	9.1	U
1330-20-7	Xylene (total)	9.1	U
100-42-5	Styrene	9.1	U
75-25-2	Bromoform	9.1	U
98-82-8	Isopropylbenzene	9.1	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.1	U
108-86-1	Bromobenzene	9.1	U
79-34-5	1,1,2,2-Tetrachloroethane	9.1	U
96-18-4	1,2,3-Trichloropropane	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20303

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666624

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666624

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.1	U
103-65-1	n-Propylbenzene	9.1	U
95-49-8	2-Chlorotoluene	9.1	U
106-43-4	4-Chlorotoluene	9.1	U
108-67-8	1,3,5-Trimethylbenzene	9.1	U
98-06-6	tert-Butylbenzene	9.1	U
95-63-6	1,2,4-Trimethylbenzene	9.1	U
135-98-8	sec-Butylbenzene	9.1	U
541-73-1	1,3-Dichlorobenzene	9.1	U
99-87-6	4-Isopropyltoluene	9.1	U
106-46-7	1,4-Dichlorobenzene	9.1	U
95-50-1	1,2-Dichlorobenzene	9.1	U
104-51-8	n-Butylbenzene	9.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.1	U
120-82-1	1,2,4-Trichlorobenzene	9.1	U
87-68-3	Hexachlorobutadiene	9.1	U
91-20-3	Naphthalene	9.1	U
87-61-6	1,2,3-Trichlorobenzene	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20308

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666620

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666620

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.1	U
74-87-3	Chloromethane	3.1	J
75-01-4	Vinyl Chloride	9.1	U
74-83-9	Bromomethane	9.1	U
75-00-3	Chloroethane	9.1	U
75-69-4	Trichlorofluoromethane	9.1	U
107-02-8	Acrolein	45	U
75-35-4	1,1-Dichloroethene	9.1	U
76-13-1	Freon TF	9.1	U
67-64-1	Acetone	45	U
74-88-4	Methyl Iodide	9.4	
75-15-0	Carbon Disulfide	9.1	U
107-05-1	Allyl Chloride	9.1	U
75-09-2	Methylene Chloride	9.1	U
107-13-1	Acrylonitrile	9.1	U
156-60-5	trans-1,2-Dichloroethene	9.1	U
1634-04-4	Methyl-t-Butyl Ether	9.1	U
540-59-0	1,2-Dichloroethene (total)	9.1	U
75-34-3	1,1-Dichloroethane	9.1	U
108-05-4	Vinyl Acetate	9.1	U
126-99-8	Chloroprene	9.1	U
594-20-7	2,2-Dichloropropane	9.1	U
156-59-2	cis-1,2-Dichloroethene	9.1	U
78-93-3	2-Butanone	40	J
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.1	U
126-98-7	Methacrylonitrile	9.1	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.1	U
71-55-6	1,1,1-Trichloroethane	9.1	U
56-23-5	Carbon Tetrachloride	9.1	U
563-58-6	1,1-Dichloropropene	9.1	U
71-43-2	Benzene	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20308

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666620

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666620

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	460	U
107-06-2	1,2-Dichloroethane	9.1	U
79-01-6	Trichloroethene	9.1	U
78-87-5	1,2-Dichloropropane	9.1	U
74-95-3	Dibromomethane	9.1	U
80-62-6	Methyl Methacrylate	9.1	U
123-91-1	1,4-Dioxane	460	U
75-27-4	Bromodichloromethane	9.1	U
110-75-8	2-Chloroethyl Vinyl Ether	9.1	U
10061-01-5	cis-1,3-Dichloropropene	9.1	U
108-10-1	4-Methyl-2-pentanone	45	U
108-88-3	Toluene	9.1	U
10061-02-6	trans-1,3-Dichloropropene	9.1	U
97-63-2	Ethyl Methacrylate	9.1	U
79-00-5	1,1,2-Trichloroethane	9.1	U
127-18-4	Tetrachloroethene	9.1	U
142-28-9	1,3-Dichloropropane	9.1	U
591-78-6	2-Hexanone	45	U
124-48-1	Dibromochloromethane	9.1	U
106-93-4	1,2-Dibromoethane	9.1	U
108-90-7	Chlorobenzene	9.1	U
630-20-6	1,1,1,2-Tetrachloroethane	9.1	U
100-41-4	Ethylbenzene	9.1	U
1330-20-7	Xylene (m,p)	9.1	U
95-47-6	Xylene (o)	9.1	U
1330-20-7	Xylene (total)	9.1	U
100-42-5	Styrene	9.1	U
75-25-2	Bromoform	9.1	U
98-82-8	Isopropylbenzene	9.1	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.1	U
108-86-1	Bromobenzene	9.1	U
79-34-5	1,1,2,2-Tetrachloroethane	9.1	U
96-18-4	1,2,3-Trichloropropane	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20308

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666620

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666620

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.1	U
103-65-1	n-Propylbenzene	9.1	U
95-49-8	2-Chlorotoluene	9.1	U
106-43-4	4-Chlorotoluene	9.1	U
108-67-8	1,3,5-Trimethylbenzene	9.1	U
98-06-6	tert-Butylbenzene	9.1	U
95-63-6	1,2,4-Trimethylbenzene	9.1	U
135-98-8	sec-Butylbenzene	9.1	U
541-73-1	1,3-Dichlorobenzene	9.1	U
99-87-6	4-Isopropyltoluene	9.1	U
106-46-7	1,4-Dichlorobenzene	9.1	U
95-50-1	1,2-Dichlorobenzene	9.1	U
104-51-8	n-Butylbenzene	9.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.1	U
120-82-1	1,2,4-Trichlorobenzene	9.1	U
87-68-3	Hexachlorobutadiene	9.1	U
91-20-3	Naphthalene	9.1	U
87-61-6	1,2,3-Trichlorobenzene	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20311

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666625

Sample wt/vol: 11.7 (g/mL) G Lab File ID: 666625

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.5	U
74-87-3	Chloromethane	8.5	U
75-01-4	Vinyl Chloride	8.5	U
74-83-9	Bromomethane	6.7	J
75-00-3	Chloroethane	8.5	U
75-69-4	Trichlorofluoromethane	8.5	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.5	U
76-13-1	Freon TF	8.5	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	5.1	J
75-15-0	Carbon Disulfide	8.5	U
107-05-1	Allyl Chloride	8.5	U
75-09-2	Methylene Chloride	8.5	U
107-13-1	Acrylonitrile	8.5	U
156-60-5	trans-1,2-Dichloroethene	8.5	U
1634-04-4	Methyl-t-Butyl Ether	8.5	U
540-59-0	1,2-Dichloroethene (total)	8.5	U
75-34-3	1,1-Dichloroethane	8.5	U
108-05-4	Vinyl Acetate	8.5	U
126-99-8	Chloroprene	8.5	U
594-20-7	2,2-Dichloropropane	8.5	U
156-59-2	cis-1,2-Dichloroethene	8.5	U
78-93-3	2-Butanone	42	U
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.5	U
126-98-7	Methacrylonitrile	8.5	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.5	U
71-55-6	1,1,1-Trichloroethane	8.5	U
56-23-5	Carbon Tetrachloride	8.5	U
563-58-6	1,1-Dichloropropene	8.5	U
71-43-2	Benzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20311

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666625

Sample wt/vol: 11.7 (g/mL) G Lab File ID: 666625

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	430	U
107-06-2	1,2-Dichloroethane	8.5	U
79-01-6	Trichloroethene	8.5	U
78-87-5	1,2-Dichloropropane	8.5	U
74-95-3	Dibromomethane	8.5	U
80-62-6	Methyl Methacrylate	8.5	U
123-91-1	1,4-Dioxane	430	U
75-27-4	Bromodichloromethane	8.5	U
110-75-8	2-Chloroethyl Vinyl Ether	8.5	U
10061-01-5	cis-1,3-Dichloropropene	8.5	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	8.5	U
10061-02-6	trans-1,3-Dichloropropene	8.5	U
97-63-2	Ethyl Methacrylate	8.5	U
79-00-5	1,1,2-Trichloroethane	8.5	U
127-18-4	Tetrachloroethene	8.5	U
142-28-9	1,3-Dichloropropane	8.5	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.5	U
106-93-4	1,2-Dibromoethane	8.5	U
108-90-7	Chlorobenzene	8.5	U
630-20-6	1,1,1,2-Tetrachloroethane	8.5	U
100-41-4	Ethylbenzene	8.5	U
1330-20-7	Xylene (m,p)	8.5	U
95-47-6	Xylene (o)	8.5	U
1330-20-7	Xylene (total)	8.5	U
100-42-5	Styrene	8.5	U
75-25-2	Bromoform	8.5	U
98-82-8	Isopropylbenzene	8.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.5	U
108-86-1	Bromobenzene	8.5	U
79-34-5	1,1,2,2-Tetrachloroethane	8.5	U
96-18-4	1,2,3-Trichloropropane	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20311

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666625

Sample wt/vol: 11.7 (g/mL) G Lab File ID: 666625

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.5	U
103-65-1	n-Propylbenzene	8.5	U
95-49-8	2-Chlorotoluene	8.5	U
106-43-4	4-Chlorotoluene	8.5	U
108-67-8	1,3,5-Trimethylbenzene	8.5	U
98-06-6	tert-Butylbenzene	8.5	U
95-63-6	1,2,4-Trimethylbenzene	8.5	U
135-98-8	sec-Butylbenzene	8.5	U
541-73-1	1,3-Dichlorobenzene	8.5	U
99-87-6	4-Isopropyltoluene	8.5	U
106-46-7	1,4-Dichlorobenzene	8.5	U
95-50-1	1,2-Dichlorobenzene	8.5	U
104-51-8	n-Butylbenzene	8.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.5	U
120-82-1	1,2,4-Trichlorobenzene	8.5	U
87-68-3	Hexachlorobutadiene	8.5	U
91-20-3	Naphthalene	8.5	U
87-61-6	1,2,3-Trichlorobenzene	8.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20330

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666627

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 666627

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.4	U
74-87-3	Chloromethane	8.4	U
75-01-4	Vinyl Chloride	8.4	U
74-83-9	Bromomethane	4.8	J
75-00-3	Chloroethane	8.4	U
75-69-4	Trichlorofluoromethane	8.4	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.4	U
76-13-1	Freon TF	8.4	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	3.9	J
75-15-0	Carbon Disulfide	8.4	U
107-05-1	Allyl Chloride	8.4	U
75-09-2	Methylene Chloride	8.4	U
107-13-1	Acrylonitrile	8.4	U
156-60-5	trans-1,2-Dichloroethene	8.4	U
1634-04-4	Methyl-t-Butyl Ether	8.4	U
540-59-0	1,2-Dichloroethene (total)	8.4	U
75-34-3	1,1-Dichloroethane	8.4	U
108-05-4	Vinyl Acetate	8.4	U
126-99-8	Chloroprene	8.4	U
594-20-7	2,2-Dichloropropane	8.4	U
156-59-2	cis-1,2-Dichloroethene	8.4	U
78-93-3	2-Butanone	160	
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.4	U
126-98-7	Methacrylonitrile	8.4	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.4	U
71-55-6	1,1,1-Trichloroethane	8.4	U
56-23-5	Carbon Tetrachloride	8.4	U
563-58-6	1,1-Dichloropropene	8.4	U
71-43-2	Benzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20330

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666627

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 666627

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	420	U
107-06-2	1,2-Dichloroethane	8.4	U
79-01-6	Trichloroethene	8.4	U
78-87-5	1,2-Dichloropropane	8.4	U
74-95-3	Dibromomethane	8.4	U
80-62-6	Methyl Methacrylate	8.4	U
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.4	U
110-75-8	2-Chloroethyl Vinyl Ether	8.4	U
10061-01-5	cis-1,3-Dichloropropene	8.4	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	8.4	U
10061-02-6	trans-1,3-Dichloropropene	8.4	U
97-63-2	Ethyl Methacrylate	8.4	U
79-00-5	1,1,2-Trichloroethane	8.4	U
127-18-4	Tetrachloroethene	8.4	U
142-28-9	1,3-Dichloropropane	8.4	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.4	U
106-93-4	1,2-Dibromoethane	8.4	U
108-90-7	Chlorobenzene	8.4	U
630-20-6	1,1,1,2-Tetrachloroethane	8.4	U
100-41-4	Ethylbenzene	8.4	U
1330-20-7	Xylene (m,p)	2.2	J
95-47-6	Xylene (o)	8.4	U
1330-20-7	Xylene (total)	2.3	J
100-42-5	Styrene	8.4	U
75-25-2	Bromoform	8.4	U
98-82-8	Isopropylbenzene	8.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.4	U
108-86-1	Bromobenzene	8.4	U
79-34-5	1,1,2,2-Tetrachloroethane	8.4	U
96-18-4	1,2,3-Trichloropropane	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20330

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666627

Sample wt/vol: 11.8 (g/mL) G Lab File ID: 666627

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.4	U
103-65-1	n-Propylbenzene	8.4	U
95-49-8	2-Chlorotoluene	8.4	U
106-43-4	4-Chlorotoluene	8.4	U
108-67-8	1,3,5-Trimethylbenzene	8.4	U
98-06-6	tert-Butylbenzene	8.4	U
95-63-6	1,2,4-Trimethylbenzene	8.4	U
135-98-8	sec-Butylbenzene	8.4	U
541-73-1	1,3-Dichlorobenzene	8.4	U
99-87-6	4-Isopropyltoluene	8.4	U
106-46-7	1,4-Dichlorobenzene	8.4	U
95-50-1	1,2-Dichlorobenzene	8.4	U
104-51-8	n-Butylbenzene	8.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.4	U
120-82-1	1,2,4-Trichlorobenzene	8.4	U
87-68-3	Hexachlorobutadiene	8.4	U
91-20-3	Naphthalene	8.4	U
87-61-6	1,2,3-Trichlorobenzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20340

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666631

Sample wt/vol: 9.7 (g/mL) G Lab File ID: 666631

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	51	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	51	U
74-88-4	Methyl Iodide	4.6	J
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	5.9	J
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	200	
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	150	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20340

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666631

Sample wt/vol: 9.7 (g/mL) G Lab File ID: 666631

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	520	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	520	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	51	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	51	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	2.9	J
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	3.1	J
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20340

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666631

Sample wt/vol: 9.7 (g/mL) G Lab File ID: 666631

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20358

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666632

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 666632

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.4	U
74-87-3	Chloromethane	8.4	U
75-01-4	Vinyl Chloride	8.4	U
74-83-9	Bromomethane	2.5	J
75-00-3	Chloroethane	8.4	U
75-69-4	Trichlorofluoromethane	8.4	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.4	U
76-13-1	Freon TF	8.4	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	2.5	J
75-15-0	Carbon Disulfide	8.4	U
107-05-1	Allyl Chloride	8.4	U
75-09-2	Methylene Chloride	7.9	J
107-13-1	Acrylonitrile	8.4	U
156-60-5	trans-1,2-Dichloroethene	8.4	U
1634-04-4	Methyl-t-Butyl Ether	8.4	U
540-59-0	1,2-Dichloroethene (total)	8.4	U
75-34-3	1,1-Dichloroethane	8.4	U
108-05-4	Vinyl Acetate	8.4	U
126-99-8	Chloroprene	8.4	U
594-20-7	2,2-Dichloropropane	8.4	U
156-59-2	cis-1,2-Dichloroethene	8.4	U
78-93-3	2-Butanone	160	
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.4	U
126-98-7	Methacrylonitrile	8.4	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.4	U
71-55-6	1,1,1-Trichloroethane	8.4	U
56-23-5	Carbon Tetrachloride	8.4	U
563-58-6	1,1-Dichloropropene	8.4	U
71-43-2	Benzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20358

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666632

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 666632

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	420	U
107-06-2	1,2-Dichloroethane	8.4	U
79-01-6	Trichloroethene	8.4	U
78-87-5	1,2-Dichloropropane	8.4	U
74-95-3	Dibromomethane	8.4	U
80-62-6	Methyl Methacrylate	5.4	J
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.4	U
110-75-8	2-Chloroethyl Vinyl Ether	8.4	U
10061-01-5	cis-1,3-Dichloropropene	8.4	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	8.4	U
10061-02-6	trans-1,3-Dichloropropene	8.4	U
97-63-2	Ethyl Methacrylate	8.4	U
79-00-5	1,1,2-Trichloroethane	8.4	U
127-18-4	Tetrachloroethene	8.4	U
142-28-9	1,3-Dichloropropane	8.4	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.4	U
106-93-4	1,2-Dibromoethane	8.4	U
108-90-7	Chlorobenzene	8.4	U
630-20-6	1,1,1,2-Tetrachloroethane	8.4	U
100-41-4	Ethylbenzene	8.4	U
1330-20-7	Xylene (m,p)	2.4	J
95-47-6	Xylene (o)	8.4	U
1330-20-7	Xylene (total)	2.5	J
100-42-5	Styrene	8.4	U
75-25-2	Bromoform	8.4	U
98-82-8	Isopropylbenzene	8.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.4	U
108-86-1	Bromobenzene	8.4	U
79-34-5	1,1,2,2-Tetrachloroethane	8.4	U
96-18-4	1,2,3-Trichloropropane	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20358

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666632

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 666632

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.4	U
103-65-1	n-Propylbenzene	8.4	U
95-49-8	2-Chlorotoluene	8.4	U
106-43-4	4-Chlorotoluene	8.4	U
108-67-8	1,3,5-Trimethylbenzene	8.4	U
98-06-6	tert-Butylbenzene	8.4	U
95-63-6	1,2,4-Trimethylbenzene	8.4	U
135-98-8	sec-Butylbenzene	8.4	U
541-73-1	1,3-Dichlorobenzene	8.4	U
99-87-6	4-Isopropyltoluene	8.4	U
106-46-7	1,4-Dichlorobenzene	8.4	U
95-50-1	1,2-Dichlorobenzene	8.4	U
104-51-8	n-Butylbenzene	8.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.4	U
120-82-1	1,2,4-Trichlorobenzene	8.4	U
87-68-3	Hexachlorobutadiene	8.4	U
91-20-3	Naphthalene	8.4	U
87-61-6	1,2,3-Trichlorobenzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20408

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666623

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 666623

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.0	U
74-87-3	Chloromethane	2.1	J
75-01-4	Vinyl Chloride	9.0	U
74-83-9	Bromomethane	7.3	J
75-00-3	Chloroethane	9.0	U
75-69-4	Trichlorofluoromethane	9.0	U
107-02-8	Acrolein	44	U
75-35-4	1,1-Dichloroethene	9.0	U
76-13-1	Freon TF	9.0	U
67-64-1	Acetone	44	U
74-88-4	Methyl Iodide	5.5	J
75-15-0	Carbon Disulfide	9.0	U
107-05-1	Allyl Chloride	9.0	U
75-09-2	Methylene Chloride	9.0	U
107-13-1	Acrylonitrile	9.0	U
156-60-5	trans-1,2-Dichloroethene	9.0	U
1634-04-4	Methyl-t-Butyl Ether	9.0	U
540-59-0	1,2-Dichloroethene (total)	9.0	U
75-34-3	1,1-Dichloroethane	9.0	U
108-05-4	Vinyl Acetate	9.0	U
126-99-8	Chloroprene	9.0	U
594-20-7	2,2-Dichloropropane	9.0	U
156-59-2	cis-1,2-Dichloroethene	9.0	U
78-93-3	2-Butanone	46	
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.0	U
126-98-7	Methacrylonitrile	9.0	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.0	U
71-55-6	1,1,1-Trichloroethane	9.0	U
56-23-5	Carbon Tetrachloride	9.0	U
563-58-6	1,1-Dichloropropene	9.0	U
71-43-2	Benzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20408

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666623

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 666623

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	450	U
107-06-2	1,2-Dichloroethane	9.0	U
79-01-6	Trichloroethene	9.0	U
78-87-5	1,2-Dichloropropane	9.0	U
74-95-3	Dibromomethane	9.0	U
80-62-6	Methyl Methacrylate	9.0	U
123-91-1	1,4-Dioxane	450	U
75-27-4	Bromodichloromethane	9.0	U
110-75-8	2-Chloroethyl Vinyl Ether	9.0	U
10061-01-5	cis-1,3-Dichloropropene	9.0	U
108-10-1	4-Methyl-2-pentanone	44	U
108-88-3	Toluene	9.0	U
10061-02-6	trans-1,3-Dichloropropene	9.0	U
97-63-2	Ethyl Methacrylate	9.0	U
79-00-5	1,1,2-Trichloroethane	9.0	U
127-18-4	Tetrachloroethene	9.0	U
142-28-9	1,3-Dichloropropane	9.0	U
591-78-6	2-Hexanone	44	U
124-48-1	Dibromochloromethane	9.0	U
106-93-4	1,2-Dibromoethane	9.0	U
108-90-7	Chlorobenzene	9.0	U
630-20-6	1,1,1,2-Tetrachloroethane	9.0	U
100-41-4	Ethylbenzene	9.0	U
1330-20-7	Xylene (m,p)	9.0	U
95-47-6	Xylene (o)	9.0	U
1330-20-7	Xylene (total)	9.0	U
100-42-5	Styrene	9.0	U
75-25-2	Bromoform	9.0	U
98-82-8	Isopropylbenzene	9.0	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.0	U
108-86-1	Bromobenzene	9.0	U
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U
96-18-4	1,2,3-Trichloropropane	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20408

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666623

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 666623

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.0	U
103-65-1	n-Propylbenzene	9.0	U
95-49-8	2-Chlorotoluene	9.0	U
106-43-4	4-Chlorotoluene	9.0	U
108-67-8	1,3,5-Trimethylbenzene	9.0	U
98-06-6	tert-Butylbenzene	9.0	U
95-63-6	1,2,4-Trimethylbenzene	9.0	U
135-98-8	sec-Butylbenzene	9.0	U
541-73-1	1,3-Dichlorobenzene	9.0	U
99-87-6	4-Isopropyltoluene	9.0	U
106-46-7	1,4-Dichlorobenzene	9.0	U
95-50-1	1,2-Dichlorobenzene	9.0	U
104-51-8	n-Butylbenzene	9.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U
120-82-1	1,2,4-Trichlorobenzene	9.0	U
87-68-3	Hexachlorobutadiene	9.0	U
91-20-3	Naphthalene	9.0	U
87-61-6	1,2,3-Trichlorobenzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20413

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666628

Sample wt/vol: 11.6 (g/mL) G Lab File ID: 666628

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.6	U
74-87-3	Chloromethane	2.2	J
75-01-4	Vinyl Chloride	8.6	U
74-83-9	Bromomethane	2.3	J
75-00-3	Chloroethane	8.6	U
75-69-4	Trichlorofluoromethane	8.6	U
107-02-8	Acrolein	43	U
75-35-4	1,1-Dichloroethene	8.6	U
76-13-1	Freon TF	8.6	U
67-64-1	Acetone	43	U
74-88-4	Methyl Iodide	3.8	J
75-15-0	Carbon Disulfide	8.6	U
107-05-1	Allyl Chloride	8.6	U
75-09-2	Methylene Chloride	8.6	U
107-13-1	Acrylonitrile	8.6	U
156-60-5	trans-1,2-Dichloroethene	8.6	U
1634-04-4	Methyl-t-Butyl Ether	8.6	U
540-59-0	1,2-Dichloroethene (total)	8.6	U
75-34-3	1,1-Dichloroethane	8.6	U
108-05-4	Vinyl Acetate	8.6	U
126-99-8	Chloroprene	8.6	U
594-20-7	2,2-Dichloropropane	8.6	U
156-59-2	cis-1,2-Dichloroethene	8.6	U
78-93-3	2-Butanone	43	U
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.6	U
126-98-7	Methacrylonitrile	8.6	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	8.6	U
71-55-6	1,1,1-Trichloroethane	8.6	U
56-23-5	Carbon Tetrachloride	8.6	U
563-58-6	1,1-Dichloropropene	8.6	U
71-43-2	Benzene	8.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20413

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666628

Sample wt/vol: 11.6 (g/mL) G Lab File ID: 666628

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	430	U
107-06-2	1,2-Dichloroethane	8.6	U
79-01-6	Trichloroethene	8.6	U
78-87-5	1,2-Dichloropropane	8.6	U
74-95-3	Dibromomethane	8.6	U
80-62-6	Methyl Methacrylate	13	
123-91-1	1,4-Dioxane	430	U
75-27-4	Bromodichloromethane	8.6	U
110-75-8	2-Chloroethyl Vinyl Ether	8.6	U
10061-01-5	cis-1,3-Dichloropropene	8.6	U
108-10-1	4-Methyl-2-pentanone	43	U
108-88-3	Toluene	8.6	U
10061-02-6	trans-1,3-Dichloropropene	8.6	U
97-63-2	Ethyl Methacrylate	8.6	U
79-00-5	1,1,2-Trichloroethane	8.6	U
127-18-4	Tetrachloroethene	8.6	U
142-28-9	1,3-Dichloropropane	8.6	U
591-78-6	2-Hexanone	43	U
124-48-1	Dibromochloromethane	8.6	U
106-93-4	1,2-Dibromoethane	8.6	U
108-90-7	Chlorobenzene	8.6	U
630-20-6	1,1,1,2-Tetrachloroethane	8.6	U
100-41-4	Ethylbenzene	8.6	U
1330-20-7	Xylene (m,p)	8.6	U
95-47-6	Xylene (o)	8.6	U
1330-20-7	Xylene (total)	8.6	U
100-42-5	Styrene	8.6	U
75-25-2	Bromoform	8.6	U
98-82-8	Isopropylbenzene	8.6	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.6	U
108-86-1	Bromobenzene	8.6	U
79-34-5	1,1,2,2-Tetrachloroethane	8.6	U
96-18-4	1,2,3-Trichloropropane	8.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20413

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666628

Sample wt/vol: 11.6 (g/mL) G Lab File ID: 666628

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.6	U
103-65-1	n-Propylbenzene	8.6	U
95-49-8	2-Chlorotoluene	8.6	U
106-43-4	4-Chlorotoluene	8.6	U
108-67-8	1,3,5-Trimethylbenzene	8.6	U
98-06-6	tert-Butylbenzene	8.6	U
95-63-6	1,2,4-Trimethylbenzene	8.6	U
135-98-8	sec-Butylbenzene	8.6	U
541-73-1	1,3-Dichlorobenzene	8.6	U
99-87-6	4-Isopropyltoluene	8.6	U
106-46-7	1,4-Dichlorobenzene	8.6	U
95-50-1	1,2-Dichlorobenzene	8.6	U
104-51-8	n-Butylbenzene	8.6	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.6	U
120-82-1	1,2,4-Trichlorobenzene	8.6	U
87-68-3	Hexachlorobutadiene	8.6	U
91-20-3	Naphthalene	8.6	U
87-61-6	1,2,3-Trichlorobenzene	8.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20453

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666622

Sample wt/vol: 13.9 (g/mL) G Lab File ID: 666622

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.2	U
74-87-3	Chloromethane	1.7	J
75-01-4	Vinyl Chloride	7.2	U
74-83-9	Bromomethane	4.0	J
75-00-3	Chloroethane	7.2	U
75-69-4	Trichlorofluoromethane	7.2	U
107-02-8	Acrolein	36	U
75-35-4	1,1-Dichloroethene	7.2	U
76-13-1	Freon TF	7.2	U
67-64-1	Acetone	36	U
74-88-4	Methyl Iodide	5.2	J
75-15-0	Carbon Disulfide	7.2	U
107-05-1	Allyl Chloride	7.2	U
75-09-2	Methylene Chloride	7.2	U
107-13-1	Acrylonitrile	7.2	U
156-60-5	trans-1,2-Dichloroethene	7.2	U
1634-04-4	Methyl-t-Butyl Ether	7.2	U
540-59-0	1,2-Dichloroethene (total)	7.2	U
75-34-3	1,1-Dichloroethane	7.2	U
108-05-4	Vinyl Acetate	7.2	U
126-99-8	Chloroprene	7.2	U
594-20-7	2,2-Dichloropropane	7.2	U
156-59-2	cis-1,2-Dichloroethene	7.2	U
78-93-3	2-Butanone	33	J
107-12-0	Propionitrile	29	U
74-97-5	Bromochloromethane	7.2	U
126-98-7	Methacrylonitrile	7.2	U
109-99-9	Tetrahydrofuran	100	U
67-66-3	Chloroform	7.2	U
71-55-6	1,1,1-Trichloroethane	7.2	U
56-23-5	Carbon Tetrachloride	7.2	U
563-58-6	1,1-Dichloropropene	7.2	U
71-43-2	Benzene	7.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20453

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666622

Sample wt/vol: 13.9 (g/mL) G Lab File ID: 666622

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	360	U
107-06-2	1,2-Dichloroethane	7.2	U
79-01-6	Trichloroethene	7.2	U
78-87-5	1,2-Dichloropropane	7.2	U
74-95-3	Dibromomethane	7.2	U
80-62-6	Methyl Methacrylate	7.2	U
123-91-1	1,4-Dioxane	360	U
75-27-4	Bromodichloromethane	7.2	U
110-75-8	2-Chloroethyl Vinyl Ether	7.2	U
10061-01-5	cis-1,3-Dichloropropene	7.2	U
108-10-1	4-Methyl-2-pentanone	36	U
108-88-3	Toluene	7.2	U
10061-02-6	trans-1,3-Dichloropropene	7.2	U
97-63-2	Ethyl Methacrylate	7.2	U
79-00-5	1,1,2-Trichloroethane	7.2	U
127-18-4	Tetrachloroethene	7.2	U
142-28-9	1,3-Dichloropropane	7.2	U
591-78-6	2-Hexanone	36	U
124-48-1	Dibromochloromethane	7.2	U
106-93-4	1,2-Dibromoethane	7.2	U
108-90-7	Chlorobenzene	7.2	U
630-20-6	1,1,1,2-Tetrachloroethane	7.2	U
100-41-4	Ethylbenzene	7.2	U
1330-20-7	Xylene (m,p)	7.2	U
95-47-6	Xylene (o)	7.2	U
1330-20-7	Xylene (total)	7.2	U
100-42-5	Styrene	7.2	U
75-25-2	Bromoform	7.2	U
98-82-8	Isopropylbenzene	7.2	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.2	U
108-86-1	Bromobenzene	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	7.2	U
96-18-4	1,2,3-Trichloropropane	7.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20453

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666622

Sample wt/vol: 13.9 (g/mL) G Lab File ID: 666622

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	7.2	U
103-65-1	n-Propylbenzene	7.2	U
95-49-8	2-Chlorotoluene	7.2	U
106-43-4	4-Chlorotoluene	7.2	U
108-67-8	1,3,5-Trimethylbenzene	7.2	U
98-06-6	tert-Butylbenzene	7.2	U
95-63-6	1,2,4-Trimethylbenzene	7.2	U
135-98-8	sec-Butylbenzene	7.2	U
541-73-1	1,3-Dichlorobenzene	7.2	U
99-87-6	4-Isopropyltoluene	7.2	U
106-46-7	1,4-Dichlorobenzene	7.2	U
95-50-1	1,2-Dichlorobenzene	7.2	U
104-51-8	n-Butylbenzene	7.2	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.2	U
120-82-1	1,2,4-Trichlorobenzene	7.2	U
87-68-3	Hexachlorobutadiene	7.2	U
91-20-3	Naphthalene	7.2	U
87-61-6	1,2,3-Trichlorobenzene	7.2	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20454

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666621

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666621

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.1	U
74-87-3	Chloromethane	2.8	J
75-01-4	Vinyl Chloride	9.1	U
74-83-9	Bromomethane	8.9	J
75-00-3	Chloroethane	9.1	U
75-69-4	Trichlorofluoromethane	9.1	U
107-02-8	Acrolein	45	U
75-35-4	1,1-Dichloroethene	9.1	U
76-13-1	Freon TF	9.1	U
67-64-1	Acetone	45	U
74-88-4	Methyl Iodide	7.7	J
75-15-0	Carbon Disulfide	9.1	U
107-05-1	Allyl Chloride	9.1	U
75-09-2	Methylene Chloride	9.1	U
107-13-1	Acrylonitrile	9.1	U
156-60-5	trans-1,2-Dichloroethene	9.1	U
1634-04-4	Methyl-t-Butyl Ether	9.1	U
540-59-0	1,2-Dichloroethene (total)	9.1	U
75-34-3	1,1-Dichloroethane	9.1	U
108-05-4	Vinyl Acetate	9.1	U
126-99-8	Chloroprene	9.1	U
594-20-7	2,2-Dichloropropane	9.1	U
156-59-2	cis-1,2-Dichloroethene	9.1	U
78-93-3	2-Butanone	31	J
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.1	U
126-98-7	Methacrylonitrile	9.1	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.1	U
71-55-6	1,1,1-Trichloroethane	9.1	U
56-23-5	Carbon Tetrachloride	9.1	U
563-58-6	1,1-Dichloropropene	9.1	U
71-43-2	Benzene	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20454

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666621

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666621

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	450	U
107-06-2	1,2-Dichloroethane	9.1	U
79-01-6	Trichloroethene	9.1	U
78-87-5	1,2-Dichloropropane	9.1	U
74-95-3	Dibromomethane	9.1	U
80-62-6	Methyl Methacrylate	9.1	U
123-91-1	1,4-Dioxane	450	U
75-27-4	Bromodichloromethane	9.1	U
110-75-8	2-Chloroethyl Vinyl Ether	9.1	U
10061-01-5	cis-1,3-Dichloropropene	9.1	U
108-10-1	4-Methyl-2-pentanone	45	U
108-88-3	Toluene	9.1	U
10061-02-6	trans-1,3-Dichloropropene	9.1	U
97-63-2	Ethyl Methacrylate	9.1	U
79-00-5	1,1,2-Trichloroethane	9.1	U
127-18-4	Tetrachloroethene	9.1	U
142-28-9	1,3-Dichloropropane	9.1	U
591-78-6	2-Hexanone	45	U
124-48-1	Dibromochloromethane	9.1	U
106-93-4	1,2-Dibromoethane	9.1	U
108-90-7	Chlorobenzene	9.1	U
630-20-6	1,1,1,2-Tetrachloroethane	9.1	U
100-41-4	Ethylbenzene	9.1	U
1330-20-7	Xylene (m,p)	9.1	U
95-47-6	Xylene (o)	9.1	U
1330-20-7	Xylene (total)	9.1	U
100-42-5	Styrene	9.1	U
75-25-2	Bromoform	9.1	U
98-82-8	Isopropylbenzene	9.1	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.1	U
108-86-1	Bromobenzene	9.1	U
79-34-5	1,1,2,2-Tetrachloroethane	9.1	U
96-18-4	1,2,3-Trichloropropane	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20454

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666621

Sample wt/vol: 11.0 (g/mL) G Lab File ID: 666621

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.1	U
103-65-1	n-Propylbenzene	9.1	U
95-49-8	2-Chlorotoluene	9.1	U
106-43-4	4-Chlorotoluene	9.1	U
108-67-8	1,3,5-Trimethylbenzene	9.1	U
98-06-6	tert-Butylbenzene	9.1	U
95-63-6	1,2,4-Trimethylbenzene	9.1	U
135-98-8	sec-Butylbenzene	9.1	U
541-73-1	1,3-Dichlorobenzene	9.1	U
99-87-6	4-Isopropyltoluene	9.1	U
106-46-7	1,4-Dichlorobenzene	9.1	U
95-50-1	1,2-Dichlorobenzene	9.1	U
104-51-8	n-Butylbenzene	9.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.1	U
120-82-1	1,2,4-Trichlorobenzene	9.1	U
87-68-3	Hexachlorobutadiene	9.1	U
91-20-3	Naphthalene	9.1	U
87-61-6	1,2,3-Trichlorobenzene	9.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20476

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666626

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 666626

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.9	U
74-87-3	Chloromethane	7.9	U
75-01-4	Vinyl Chloride	7.9	U
74-83-9	Bromomethane	4.8	J
75-00-3	Chloroethane	7.9	U
75-69-4	Trichlorofluoromethane	7.9	U
107-02-8	Acrolein	39	U
75-35-4	1,1-Dichloroethene	7.9	U
76-13-1	Freon TF	7.9	U
67-64-1	Acetone	39	U
74-88-4	Methyl Iodide	4.8	J
75-15-0	Carbon Disulfide	7.9	U
107-05-1	Allyl Chloride	7.9	U
75-09-2	Methylene Chloride	7.7	J
107-13-1	Acrylonitrile	7.9	U
156-60-5	trans-1,2-Dichloroethene	7.9	U
1634-04-4	Methyl-t-Butyl Ether	7.9	U
540-59-0	1,2-Dichloroethene (total)	7.9	U
75-34-3	1,1-Dichloroethane	7.9	U
108-05-4	Vinyl Acetate	7.9	U
126-99-8	Chloroprene	7.9	U
594-20-7	2,2-Dichloropropane	7.9	U
156-59-2	cis-1,2-Dichloroethene	7.9	U
78-93-3	2-Butanone	120	
107-12-0	Propionitrile	32	U
74-97-5	Bromochloromethane	7.9	U
126-98-7	Methacrylonitrile	7.9	U
109-99-9	Tetrahydrofuran	110	U
67-66-3	Chloroform	11	
71-55-6	1,1,1-Trichloroethane	7.9	U
56-23-5	Carbon Tetrachloride	29	
563-58-6	1,1-Dichloropropene	7.9	U
71-43-2	Benzene	7.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20476

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666626

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 666626

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	400	U
107-06-2	1,2-Dichloroethane	7.9	U
79-01-6	Trichloroethene	7.9	U
78-87-5	1,2-Dichloropropane	7.9	U
74-95-3	Dibromomethane	7.9	U
80-62-6	Methyl Methacrylate	7.9	U
123-91-1	1,4-Dioxane	400	U
75-27-4	Bromodichloromethane	7.9	U
110-75-8	2-Chloroethyl Vinyl Ether	7.9	U
10061-01-5	cis-1,3-Dichloropropene	7.9	U
108-10-1	4-Methyl-2-pentanone	39	U
108-88-3	Toluene	7.9	U
10061-02-6	trans-1,3-Dichloropropene	7.9	U
97-63-2	Ethyl Methacrylate	7.9	U
79-00-5	1,1,2-Trichloroethane	7.9	U
127-18-4	Tetrachloroethene	7.9	U
142-28-9	1,3-Dichloropropane	7.9	U
591-78-6	2-Hexanone	39	U
124-48-1	Dibromochloromethane	7.9	U
106-93-4	1,2-Dibromoethane	7.9	U
108-90-7	Chlorobenzene	7.9	U
630-20-6	1,1,1,2-Tetrachloroethane	7.9	U
100-41-4	Ethylbenzene	7.9	U
1330-20-7	Xylene (m,p)	2.0	J
95-47-6	Xylene (o)	7.9	U
1330-20-7	Xylene (total)	2.2	J
100-42-5	Styrene	7.9	U
75-25-2	Bromoform	7.9	U
98-82-8	Isopropylbenzene	7.9	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.9	U
108-86-1	Bromobenzene	7.9	U
79-34-5	1,1,2,2-Tetrachloroethane	7.9	U
96-18-4	1,2,3-Trichloropropane	7.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20476

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 113901

Matrix: (soil/water) SOIL Lab Sample ID: 666626

Sample wt/vol: 12.6 (g/mL) G Lab File ID: 666626

Level: (low/med) MED Date Received: 04/20/06

% Moisture: not dec. _____ Date Analyzed: 04/29/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	7.9	U
103-65-1	n-Propylbenzene	7.9	U
95-49-8	2-Chlorotoluene	7.9	U
106-43-4	4-Chlorotoluene	7.9	U
108-67-8	1,3,5-Trimethylbenzene	7.9	U
98-06-6	tert-Butylbenzene	7.9	U
95-63-6	1,2,4-Trimethylbenzene	7.9	U
135-98-8	sec-Butylbenzene	7.9	U
541-73-1	1,3-Dichlorobenzene	7.9	U
99-87-6	4-Isopropyltoluene	7.9	U
106-46-7	1,4-Dichlorobenzene	7.9	U
95-50-1	1,2-Dichlorobenzene	7.9	U
104-51-8	n-Butylbenzene	7.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.9	U
120-82-1	1,2,4-Trichlorobenzene	7.9	U
87-68-3	Hexachlorobutadiene	7.9	U
91-20-3	Naphthalene	7.9	U
87-61-6	1,2,3-Trichlorobenzene	7.9	U

SEVERN TRENT STL®

May 19, 2006

STL Burlington
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Colchester, VT 05446

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www.stl-inc.com

Mr. Clyde Dennis
Argonne National Laboratory
9700 S. Cass Avenue
Building 203, Office 149
Argonne, IL 60439

Re: Laboratory Project No. 21005
Case: NAVARRE; SDG: 114211

Dear Mr. Dennis:

Enclosed are analytical results for samples that were received by STL Burlington on May 8th, 2006. Laboratory identification numbers were assigned, and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 05/08/06 ETR No: 114211		
668542	NA-S-20527-9A	05/02/06	Liquid
668543	NA-S-20511-10A	05/02/06	Liquid
668544	NA-S-20603-30A	05/02/06	Liquid
668545	NA-S-20620-20A	05/02/06	Liquid
668546	NA-S-20390-10A	05/02/06	Liquid
668547	NA-S-20496-10A	05/02/06	Liquid
668548	NA-S-20607-20A	05/02/06	Liquid
668549	NA-S-BLANK	05/02/06	Liquid

Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal. It should be noted that at the time that they were received, the sample volumes were at near ambient temperature.

The samples were analyzed by Method 8260B, using a low-level calibration. In performing the analytical work, 500 microliters of the methanol extract were added to the 5 milliliter purge volume. The surrogate controls were recovered well in each of the analyses associated with the sample set, and each analysis exhibited good internal standard stability. Two types of laboratory control sample analyses were performed as part of the analytical sequence. One was performed to evaluate method performance, and one was performed with 500 microliters of methanol added to the purge volume in order to characterize the affect on the analytical process. The target analytes were recovered well in the laboratory control sample analysis that defined the method performance. In the laboratory control sample analysis with methanol, several of the earlier eluting compounds did exhibit lower recoveries, as did several of the later eluting compounds. Most profoundly affected was the performance of chloroethane, naphthalene, and 1,2,3-trichlorobenzene, for which the recovery values were below 10 percent. Chloroform and

carbon tetrachloride were recovered well in each of the laboratory control sample analyses. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the instrument blank that was analyzed in association with the samples was free of contamination. The laboratory did provide for the analysis of a method blank with the addition of 500 microliters of methanol, however the methanol that was used was not from the same lot as that used in the extraction of the samples.

If there are any questions regarding this submittal, please contact me at (802) 655-1203.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

Sincerely,

Kirk F. Young
Project Manager

Enclosure

STL Burlington Data Qualifier Definitions

Organic

U: Compound analyzed but not detected at a concentration above the reporting limit.

J: Estimated value.

N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.

P: SW-846: Greater than 40% difference for detected concentrations between two GC columns. Unless otherwise specified the higher of the two values is reported on the Form I.

CLP SOW: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified the lower of the two values is reported on the Form I.

C: Pesticide result whose identification has been confirmed by GC/MS.

B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.

E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.

D: Concentrations identified from analysis of the sample at a secondary dilution.

A: Tentatively identified compound is a suspected aldol condensation product.

X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

E: Reported value is estimated due to the presence of interference.

N: Matrix spike sample recovery is not within control limits.

* Duplicate sample analysis is not within control limits.

B: The result reported is less than the reporting limit but greater than the instrument detection limit.

U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P	ICP-AES
MS	ICP-MS
CV	Cold Vapor AA
AS	Semi-Automated Spectrophotometric

MATRIX: MeOH-Soil
RECEIVING LAB: STL
PROJECT/SITE: NAUARRE
SAMPLER(S) (Signature)

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS										REMARKS
May 2, 06	NA-S-20527-9A												WT. of Soil 11.054
May 2, 06	NA-S-20511-10A												" 10.496
May 2, 06	NA-S-20603-30A												" 10.549
May 2, 06	NA-S-20620-20A												" 9.603
May 2, 06	NA-S-20390-10A												" 9.482
May 2, 06	NA-S-20496-10A												" 11.096
May 2, 06	NA-S-20607-20A												" 9.769
May 2, 06	NA-S-Blank												

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Joyce Ahrens	5/02/06	11:15am	[signature]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
			[signature]	5-8-06	0930	

Y	N	FOR LAB USE ONLY
	N/A	Custody seal was intact when shipment received.
X		Sample containers were intact when received.
	X	Shipment was at required temperature when received. 14°C
X		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

SEVERN TRENT STL

METHOD 8260B

VOLATILE ORGANIC ANALYSIS

SAMPLE DATA SUMMARY PACKAGE

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668549

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 668549

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	4.8	JB
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	8.3	JB
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	6.0	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	3.5	J
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	430	B
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668549

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 668549

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	500	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	3.1	JB
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	3.2	JB
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668549

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 668549

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20390-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668546

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 668546

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	11	U
74-87-3	Chloromethane	5.6	JB
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	8.4	JB
75-00-3	Chloroethane	11	U
75-69-4	Trichlorofluoromethane	11	U
107-02-8	Acrolein	52	U
75-35-4	1,1-Dichloroethene	11	U
76-13-1	Freon TF	11	U
67-64-1	Acetone	52	U
74-88-4	Methyl Iodide	7.6	JB
75-15-0	Carbon Disulfide	11	U
107-05-1	Allyl Chloride	11	U
75-09-2	Methylene Chloride	5.7	J
107-13-1	Acrylonitrile	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
1634-04-4	Methyl-t-Butyl Ether	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
126-99-8	Chloroprene	11	U
594-20-7	2,2-Dichloropropane	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	250	B
107-12-0	Propionitrile	42	U
74-97-5	Bromochloromethane	11	U
126-98-7	Methacrylonitrile	11	U
109-99-9	Tetrahydrofuran	150	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
563-58-6	1,1-Dichloropropene	11	U
71-43-2	Benzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20390-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668546

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 668546

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	530	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
74-95-3	Dibromomethane	11	U
80-62-6	Methyl Methacrylate	4.4	J
123-91-1	1,4-Dioxane	530	U
75-27-4	Bromodichloromethane	11	U
110-75-8	2-Chloroethyl Vinyl Ether	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-10-1	4-Methyl-2-pentanone	52	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
97-63-2	Ethyl Methacrylate	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
142-28-9	1,3-Dichloropropane	11	U
591-78-6	2-Hexanone	52	U
124-48-1	Dibromochloromethane	11	U
106-93-4	1,2-Dibromoethane	11	U
108-90-7	Chlorobenzene	11	U
630-20-6	1,1,1,2-Tetrachloroethane	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (m,p)	3.0	JB
95-47-6	Xylene (o)	11	U
1330-20-7	Xylene (total)	3.2	JB
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U
98-82-8	Isopropylbenzene	11	U
1476-11-5	cis-1,4-Dichloro-2-butene	11	U
108-86-1	Bromobenzene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
96-18-4	1,2,3-Trichloropropane	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20390-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668546

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 668546

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	11	U
103-65-1	n-Propylbenzene	11	U
95-49-8	2-Chlorotoluene	11	U
106-43-4	4-Chlorotoluene	11	U
108-67-8	1,3,5-Trimethylbenzene	11	U
98-06-6	tert-Butylbenzene	11	U
95-63-6	1,2,4-Trimethylbenzene	11	U
135-98-8	sec-Butylbenzene	11	U
541-73-1	1,3-Dichlorobenzene	11	U
99-87-6	4-Isopropyltoluene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
104-51-8	n-Butylbenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
91-20-3	Naphthalene	11	U
87-61-6	1,2,3-Trichlorobenzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20496-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668547

Sample wt/vol: 11.1 (g/mL) G Lab File ID: 668547

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.0	U
74-87-3	Chloromethane	4.9	JB
75-01-4	Vinyl Chloride	9.0	U
74-83-9	Bromomethane	7.0	JB
75-00-3	Chloroethane	9.0	U
75-69-4	Trichlorofluoromethane	9.0	U
107-02-8	Acrolein	45	U
75-35-4	1,1-Dichloroethene	9.0	U
76-13-1	Freon TF	9.0	U
67-64-1	Acetone	45	U
74-88-4	Methyl Iodide	6.8	JB
75-15-0	Carbon Disulfide	9.0	U
107-05-1	Allyl Chloride	9.0	U
75-09-2	Methylene Chloride	5.1	J
107-13-1	Acrylonitrile	9.0	U
156-60-5	trans-1,2-Dichloroethene	9.0	U
1634-04-4	Methyl-t-Butyl Ether	9.0	U
540-59-0	1,2-Dichloroethene (total)	9.0	U
75-34-3	1,1-Dichloroethane	9.0	U
108-05-4	Vinyl Acetate	9.0	U
126-99-8	Chloroprene	9.0	U
594-20-7	2,2-Dichloropropane	9.0	U
156-59-2	cis-1,2-Dichloroethene	9.0	U
78-93-3	2-Butanone	170	B
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.0	U
126-98-7	Methacrylonitrile	9.0	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.0	U
71-55-6	1,1,1-Trichloroethane	9.0	U
56-23-5	Carbon Tetrachloride	9.0	U
563-58-6	1,1-Dichloropropene	9.0	U
71-43-2	Benzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20496-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668547

Sample wt/vol: 11.1 (g/mL) G Lab File ID: 668547

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	450	U
107-06-2	1,2-Dichloroethane	9.0	U
79-01-6	Trichloroethene	9.0	U
78-87-5	1,2-Dichloropropane	9.0	U
74-95-3	Dibromomethane	9.0	U
80-62-6	Methyl Methacrylate	3.4	J
123-91-1	1,4-Dioxane	450	U
75-27-4	Bromodichloromethane	9.0	U
110-75-8	2-Chloroethyl Vinyl Ether	9.0	U
10061-01-5	cis-1,3-Dichloropropene	9.0	U
108-10-1	4-Methyl-2-pentanone	45	U
108-88-3	Toluene	9.0	U
10061-02-6	trans-1,3-Dichloropropene	9.0	U
97-63-2	Ethyl Methacrylate	9.0	U
79-00-5	1,1,2-Trichloroethane	9.0	U
127-18-4	Tetrachloroethene	9.0	U
142-28-9	1,3-Dichloropropane	9.0	U
591-78-6	2-Hexanone	45	U
124-48-1	Dibromochloromethane	9.0	U
106-93-4	1,2-Dibromoethane	9.0	U
108-90-7	Chlorobenzene	9.0	U
630-20-6	1,1,1,2-Tetrachloroethane	9.0	U
100-41-4	Ethylbenzene	9.0	U
1330-20-7	Xylene (m,p)	2.5	JB
95-47-6	Xylene (o)	9.0	U
1330-20-7	Xylene (total)	2.7	JB
100-42-5	Styrene	9.0	U
75-25-2	Bromoform	9.0	U
98-82-8	Isopropylbenzene	9.0	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.0	U
108-86-1	Bromobenzene	9.0	U
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U
96-18-4	1,2,3-Trichloropropane	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20496-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668547

Sample wt/vol: 11.1 (g/mL) G Lab File ID: 668547

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.0	U
103-65-1	n-Propylbenzene	9.0	U
95-49-8	2-Chlorotoluene	9.0	U
106-43-4	4-Chlorotoluene	9.0	U
108-67-8	1,3,5-Trimethylbenzene	9.0	U
98-06-6	tert-Butylbenzene	9.0	U
95-63-6	1,2,4-Trimethylbenzene	9.0	U
135-98-8	sec-Butylbenzene	9.0	U
541-73-1	1,3-Dichlorobenzene	9.0	U
99-87-6	4-Isopropyltoluene	9.0	U
106-46-7	1,4-Dichlorobenzene	9.0	U
95-50-1	1,2-Dichlorobenzene	9.0	U
104-51-8	n-Butylbenzene	9.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U
120-82-1	1,2,4-Trichlorobenzene	9.0	U
87-68-3	Hexachlorobutadiene	9.0	U
91-20-3	Naphthalene	9.0	U
87-61-6	1,2,3-Trichlorobenzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20511-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668543

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 668543

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.5	U
74-87-3	Chloromethane	8.4	JB
75-01-4	Vinyl Chloride	9.5	U
74-83-9	Bromomethane	13	B
75-00-3	Chloroethane	9.5	U
75-69-4	Trichlorofluoromethane	9.5	U
107-02-8	Acrolein	47	U
75-35-4	1,1-Dichloroethene	9.5	U
76-13-1	Freon TF	9.5	U
67-64-1	Acetone	47	U
74-88-4	Methyl Iodide	12	B
75-15-0	Carbon Disulfide	9.5	U
107-05-1	Allyl Chloride	9.5	U
75-09-2	Methylene Chloride	4.6	J
107-13-1	Acrylonitrile	9.5	U
156-60-5	trans-1,2-Dichloroethene	9.5	U
1634-04-4	Methyl-t-Butyl Ether	9.5	U
540-59-0	1,2-Dichloroethene (total)	9.5	U
75-34-3	1,1-Dichloroethane	9.5	U
108-05-4	Vinyl Acetate	9.5	U
126-99-8	Chloroprene	9.5	U
594-20-7	2,2-Dichloropropane	9.5	U
156-59-2	cis-1,2-Dichloroethene	9.5	U
78-93-3	2-Butanone	200	B
107-12-0	Propionitrile	38	U
74-97-5	Bromochloromethane	9.5	U
126-98-7	Methacrylonitrile	9.5	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.5	U
71-55-6	1,1,1-Trichloroethane	9.5	U
56-23-5	Carbon Tetrachloride	9.5	U
563-58-6	1,1-Dichloropropene	9.5	U
71-43-2	Benzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20511-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668543

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 668543

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	480	U
107-06-2	1,2-Dichloroethane	9.5	U
79-01-6	Trichloroethene	9.5	U
78-87-5	1,2-Dichloropropane	9.5	U
74-95-3	Dibromomethane	9.5	U
80-62-6	Methyl Methacrylate	9.5	U
123-91-1	1,4-Dioxane	480	U
75-27-4	Bromodichloromethane	9.5	U
110-75-8	2-Chloroethyl Vinyl Ether	9.5	U
10061-01-5	cis-1,3-Dichloropropene	9.5	U
108-10-1	4-Methyl-2-pentanone	47	U
108-88-3	Toluene	9.5	U
10061-02-6	trans-1,3-Dichloropropene	9.5	U
97-63-2	Ethyl Methacrylate	9.5	U
79-00-5	1,1,2-Trichloroethane	9.5	U
127-18-4	Tetrachloroethene	9.5	U
142-28-9	1,3-Dichloropropane	9.5	U
591-78-6	2-Hexanone	47	U
124-48-1	Dibromochloromethane	9.5	U
106-93-4	1,2-Dibromoethane	9.5	U
108-90-7	Chlorobenzene	9.5	U
630-20-6	1,1,1,2-Tetrachloroethane	9.5	U
100-41-4	Ethylbenzene	9.5	U
1330-20-7	Xylene (m,p)	2.8	JB
95-47-6	Xylene (o)	9.5	U
1330-20-7	Xylene (total)	2.9	JB
100-42-5	Styrene	9.5	U
75-25-2	Bromoform	9.5	U
98-82-8	Isopropylbenzene	9.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.5	U
108-86-1	Bromobenzene	9.5	U
79-34-5	1,1,2,2-Tetrachloroethane	9.5	U
96-18-4	1,2,3-Trichloropropane	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20511-10A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668543

Sample wt/vol: 10.5 (g/mL) G Lab File ID: 668543

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.5	U
103-65-1	n-Propylbenzene	9.5	U
95-49-8	2-Chlorotoluene	9.5	U
106-43-4	4-Chlorotoluene	9.5	U
108-67-8	1,3,5-Trimethylbenzene	9.5	U
98-06-6	tert-Butylbenzene	9.5	U
95-63-6	1,2,4-Trimethylbenzene	9.5	U
135-98-8	sec-Butylbenzene	9.5	U
541-73-1	1,3-Dichlorobenzene	9.5	U
99-87-6	4-Isopropyltoluene	9.5	U
106-46-7	1,4-Dichlorobenzene	9.5	U
95-50-1	1,2-Dichlorobenzene	9.5	U
104-51-8	n-Butylbenzene	9.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U
120-82-1	1,2,4-Trichlorobenzene	9.5	U
87-68-3	Hexachlorobutadiene	9.5	U
91-20-3	Naphthalene	9.5	U
87-61-6	1,2,3-Trichlorobenzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20527-9A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668542

Sample wt/vol: 11.1 (g/mL) G Lab File ID: 668542

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.0	U
74-87-3	Chloromethane	13	B
75-01-4	Vinyl Chloride	9.0	U
74-83-9	Bromomethane	16	B
75-00-3	Chloroethane	9.0	U
75-69-4	Trichlorofluoromethane	9.0	U
107-02-8	Acrolein	45	U
75-35-4	1,1-Dichloroethene	9.0	U
76-13-1	Freon TF	9.0	U
67-64-1	Acetone	45	U
74-88-4	Methyl Iodide	16	B
75-15-0	Carbon Disulfide	9.0	U
107-05-1	Allyl Chloride	9.0	U
75-09-2	Methylene Chloride	3.6	J
107-13-1	Acrylonitrile	9.0	U
156-60-5	trans-1,2-Dichloroethene	9.0	U
1634-04-4	Methyl-t-Butyl Ether	9.0	U
540-59-0	1,2-Dichloroethene (total)	9.0	U
75-34-3	1,1-Dichloroethane	9.0	U
108-05-4	Vinyl Acetate	9.0	U
126-99-8	Chloroprene	9.0	U
594-20-7	2,2-Dichloropropane	9.0	U
156-59-2	cis-1,2-Dichloroethene	9.0	U
78-93-3	2-Butanone	220	B
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	9.0	U
126-98-7	Methacrylonitrile	9.0	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.0	U
71-55-6	1,1,1-Trichloroethane	9.0	U
56-23-5	Carbon Tetrachloride	9.0	U
563-58-6	1,1-Dichloropropene	9.0	U
71-43-2	Benzene	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20527-9A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668542

Sample wt/vol: 11.1 (g/mL) G Lab File ID: 668542

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	450	U
107-06-2	1,2-Dichloroethane	9.0	U
79-01-6	Trichloroethene	9.0	U
78-87-5	1,2-Dichloropropane	9.0	U
74-95-3	Dibromomethane	9.0	U
80-62-6	Methyl Methacrylate	9.0	U
123-91-1	1,4-Dioxane	450	U
75-27-4	Bromodichloromethane	9.0	U
110-75-8	2-Chloroethyl Vinyl Ether	9.0	U
10061-01-5	cis-1,3-Dichloropropene	9.0	U
108-10-1	4-Methyl-2-pentanone	45	U
108-88-3	Toluene	9.0	U
10061-02-6	trans-1,3-Dichloropropene	9.0	U
97-63-2	Ethyl Methacrylate	9.0	U
79-00-5	1,1,2-Trichloroethane	9.0	U
127-18-4	Tetrachloroethene	9.0	U
142-28-9	1,3-Dichloropropane	9.0	U
591-78-6	2-Hexanone	45	U
124-48-1	Dibromochloromethane	9.0	U
106-93-4	1,2-Dibromoethane	9.0	U
108-90-7	Chlorobenzene	9.0	U
630-20-6	1,1,1,2-Tetrachloroethane	9.0	U
100-41-4	Ethylbenzene	9.0	U
1330-20-7	Xylene (m,p)	3.1	JB
95-47-6	Xylene (o)	9.0	U
1330-20-7	Xylene (total)	3.3	JB
100-42-5	Styrene	9.0	U
75-25-2	Bromoform	9.0	U
98-82-8	Isopropylbenzene	9.0	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.0	U
108-86-1	Bromobenzene	9.0	U
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U
96-18-4	1,2,3-Trichloropropane	9.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20527-9A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668542

Sample wt/vol: 11.1 (g/mL) G Lab File ID: 668542

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.0	U
103-65-1	n-Propylbenzene	9.0	U
95-49-8	2-Chlorotoluene	9.0	U
106-43-4	4-Chlorotoluene	9.0	U
108-67-8	1,3,5-Trimethylbenzene	9.0	U
98-06-6	tert-Butylbenzene	9.0	U
95-63-6	1,2,4-Trimethylbenzene	9.0	U
135-98-8	sec-Butylbenzene	9.0	U
541-73-1	1,3-Dichlorobenzene	9.0	U
99-87-6	4-Isopropyltoluene	9.0	U
106-46-7	1,4-Dichlorobenzene	9.0	U
95-50-1	1,2-Dichlorobenzene	9.0	U
104-51-8	n-Butylbenzene	9.0	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U
120-82-1	1,2,4-Trichlorobenzene	3.6	J
87-68-3	Hexachlorobutadiene	9.0	U
91-20-3	Naphthalene	3.2	J
87-61-6	1,2,3-Trichlorobenzene	3.4	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20603-30A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668544

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 668544

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.5	U
74-87-3	Chloromethane	5.6	JB
75-01-4	Vinyl Chloride	9.5	U
74-83-9	Bromomethane	11	B
75-00-3	Chloroethane	9.5	U
75-69-4	Trichlorofluoromethane	9.5	U
107-02-8	Acrolein	47	U
75-35-4	1,1-Dichloroethene	9.5	U
76-13-1	Freon TF	9.5	U
67-64-1	Acetone	47	U
74-88-4	Methyl Iodide	11	B
75-15-0	Carbon Disulfide	9.5	U
107-05-1	Allyl Chloride	9.5	U
75-09-2	Methylene Chloride	4.3	J
107-13-1	Acrylonitrile	9.5	U
156-60-5	trans-1,2-Dichloroethene	9.5	U
1634-04-4	Methyl-t-Butyl Ether	9.5	U
540-59-0	1,2-Dichloroethene (total)	9.5	U
75-34-3	1,1-Dichloroethane	9.5	U
108-05-4	Vinyl Acetate	9.5	U
126-99-8	Chloroprene	9.5	U
594-20-7	2,2-Dichloropropane	9.5	U
156-59-2	cis-1,2-Dichloroethene	9.5	U
78-93-3	2-Butanone	180	B
107-12-0	Propionitrile	38	U
74-97-5	Bromochloromethane	9.5	U
126-98-7	Methacrylonitrile	9.5	U
109-99-9	Tetrahydrofuran	130	U
67-66-3	Chloroform	9.5	U
71-55-6	1,1,1-Trichloroethane	9.5	U
56-23-5	Carbon Tetrachloride	3.5	J
563-58-6	1,1-Dichloropropene	9.5	U
71-43-2	Benzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20603-30A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668544

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 668544

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	470	U
107-06-2	1,2-Dichloroethane	9.5	U
79-01-6	Trichloroethene	9.5	U
78-87-5	1,2-Dichloropropane	9.5	U
74-95-3	Dibromomethane	9.5	U
80-62-6	Methyl Methacrylate	9.5	U
123-91-1	1,4-Dioxane	470	U
75-27-4	Bromodichloromethane	9.5	U
110-75-8	2-Chloroethyl Vinyl Ether	9.5	U
10061-01-5	cis-1,3-Dichloropropene	9.5	U
108-10-1	4-Methyl-2-pentanone	47	U
108-88-3	Toluene	9.5	U
10061-02-6	trans-1,3-Dichloropropene	9.5	U
97-63-2	Ethyl Methacrylate	9.5	U
79-00-5	1,1,2-Trichloroethane	9.5	U
127-18-4	Tetrachloroethene	9.5	U
142-28-9	1,3-Dichloropropane	9.5	U
591-78-6	2-Hexanone	47	U
124-48-1	Dibromochloromethane	9.5	U
106-93-4	1,2-Dibromoethane	9.5	U
108-90-7	Chlorobenzene	9.5	U
630-20-6	1,1,1,2-Tetrachloroethane	9.5	U
100-41-4	Ethylbenzene	9.5	U
1330-20-7	Xylene (m,p)	2.9	JB
95-47-6	Xylene (o)	9.5	U
1330-20-7	Xylene (total)	3.1	JB
100-42-5	Styrene	9.5	U
75-25-2	Bromoform	9.5	U
98-82-8	Isopropylbenzene	9.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.5	U
108-86-1	Bromobenzene	9.5	U
79-34-5	1,1,2,2-Tetrachloroethane	9.5	U
96-18-4	1,2,3-Trichloropropane	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20603-30A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668544

Sample wt/vol: 10.6 (g/mL) G Lab File ID: 668544

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.5	U
103-65-1	n-Propylbenzene	9.5	U
95-49-8	2-Chlorotoluene	9.5	U
106-43-4	4-Chlorotoluene	9.5	U
108-67-8	1,3,5-Trimethylbenzene	9.5	U
98-06-6	tert-Butylbenzene	9.5	U
95-63-6	1,2,4-Trimethylbenzene	9.5	U
135-98-8	sec-Butylbenzene	9.5	U
541-73-1	1,3-Dichlorobenzene	9.5	U
99-87-6	4-Isopropyltoluene	9.5	U
106-46-7	1,4-Dichlorobenzene	9.5	U
95-50-1	1,2-Dichlorobenzene	9.5	U
104-51-8	n-Butylbenzene	9.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U
120-82-1	1,2,4-Trichlorobenzene	9.5	U
87-68-3	Hexachlorobutadiene	9.5	U
91-20-3	Naphthalene	9.5	U
87-61-6	1,2,3-Trichlorobenzene	9.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20607-20A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668548

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 668548

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	5.1	JB
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	5.6	JB
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	51	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	51	U
74-88-4	Methyl Iodide	5.9	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	6.4	J
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	210	B
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20607-20A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668548

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 668548

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	510	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	510	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	51	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	51	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	2.9	JB
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	3.0	JB
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20607-20A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668548

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 668548

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20620-20A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668545

Sample wt/vol: 9.6 (g/mL) G Lab File ID: 668545

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	5.9	JB
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	6.9	JB
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	52	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	52	U
74-88-4	Methyl Iodide	9.2	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	4.4	J
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	250	B
107-12-0	Propionitrile	42	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	150	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20620-20A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668545

Sample wt/vol: 9.6 (g/mL) G Lab File ID: 668545

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	520	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	520	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	52	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	52	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	3.6	JB
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	3.8	JB
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NAS20620-20A

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114211

Matrix: (soil/water) SOIL Lab Sample ID: 668545

Sample wt/vol: 9.6 (g/mL) G Lab File ID: 668545

Level: (low/med) MED Date Received: 05/08/06

% Moisture: not dec. _____ Date Analyzed: 05/10/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

SEVERN TRENT STL

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208 South Park Drive, Suite 1
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May 25, 2006

Mr. Clyde Dennis
Argonne National Laboratory
9700 S. Cass Avenue
Building 203, Office 149
Argonne, IL 60439

Re: Laboratory Project No. 21005
Case: NAVARRE; SDG: 114309

Dear Mr. Dennis:

Enclosed are analytical results for samples that were received by STL Burlington on May 12th, 2006. Laboratory identification numbers were assigned, and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 05/12/06 ETR No: 114309		
669174	NA-S-20636	05/08/06	Liquid
669175	NA-S-20735	05/08/06	Liquid
669176	NA-S-20538	05/08/06	Liquid
669177	NA-S-20750	05/08/06	Liquid
669178	NA-S-20541	05/08/06	Liquid
669179	NA-S-20575	05/08/06	Liquid
669180	NA-S-20545	05/08/06	Liquid
669181	NA-S-20664	05/08/06	Liquid
669182	NA-S-20543	05/08/06	Liquid
669183	MEOH BLANK	05/08/06	Liquid

Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal. It should be noted that at the time that they were received, the sample volumes were at near ambient temperature.

The samples were analyzed by Method 8260B, using a low-level calibration. In performing the analytical work, 500 microliters of the methanol extract were added to the 5 milliliter purge volume. The surrogate controls were recovered well in each of the analyses associated with the sample set, and each analysis exhibited good internal standard stability. Two types of laboratory control sample analyses were performed as part of the analytical sequence. One was performed to evaluate method performance, and one was performed with 500 microliters of methanol added to the purge volume in order to characterize the affect on the analytical process. With the exception of that for dichlorodifluoromethane, for which the recovery was 74 percent, the recovery of each target analyte was within the established control range in the laboratory control sample analysis that defined the method performance. In the laboratory control sample analysis with methanol, several of the earlier eluting compounds did exhibit lower recoveries, as did isobutyl

alcohol and 1,4-dioxane. Chloroform and carbon tetrachloride were recovered well in each of the laboratory control sample analyses. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the instrument blank that was analyzed in association with the samples was free of contamination. The laboratory did associate the analysis of sample MEOH BLANK with each of the other field sample analyses in order to reference the blank association, and accordingly qualify the reported results.

If there are any questions regarding this submittal, please contact me at (802) 655-1203.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

Sincerely,

Kirk F. Young
Project Manager

Enclosure

STL Burlington Data Qualifier Definitions

Organic

U: Compound analyzed but not detected at a concentration above the reporting limit.

J: Estimated value.

N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.

P: SW-846: Greater than 40% difference for detected concentrations between two GC columns. Unless otherwise specified the higher of the two values is reported on the Form I.

CLP SOW: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified the lower of the two values is reported on the Form I.

C: Pesticide result whose identification has been confirmed by GC/MS.

B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.

E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.

D: Concentrations identified from analysis of the sample at a secondary dilution.

A: Tentatively identified compound is a suspected aldol condensation product.

X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

E: Reported value is estimated due to the presence of interference.

N: Matrix spike sample recovery is not within control limits.

* Duplicate sample analysis is not within control limits.

B: The result reported is less than the reporting limit but greater than the instrument detection limit.

U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P ICP-AES
MS ICP-MS
CV Cold Vapor AA
AS Semi-Automated Spectrophotometric

MATRIX: Soil- Methanol	**ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD***	Shipping Container No.
RECEIVING LAB: STL-Burlington		Shipping Info:
PROJECT/SITE: NAUKRF		ANL Field Contact (Name & Temporary Phone):
SAMPLER(S) (Signature) R. Lafrenieres		

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS	REMARKS: Volume MeOH	REMARKS: Mass of Soil (g)
06/08/06	NA-S- 20636 (30A)	1-20mL		10mL	12.875
	NA-S- 20735 (10A)				9.759
	NA-S- 20538 (20A)				9.467
	NA-S- 20750 (9A)				9.820
	NA-S- 20541 (30)				8.384
	NA-S- 20575 (21A)				11.248
	NA-S- 20545 (27)				10.113
	NA-S- 20664 (10A)				13.256
	NA-S- 20543 (14)				7.519
	MeOH Blank				—

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
Joyce Colorado	5/8/06	12:00	[illegible]				

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
M. Turpin	05/08/06	11:58				

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

SEVERN TRENT STL

METHOD 8260B

VOLATILE ORGANIC ANALYSIS

SAMPLE DATA SUMMARY PACKAGE

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20538

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669176

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 669176E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	11	U
74-87-3	Chloromethane	5.3	JB
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	12	B
75-00-3	Chloroethane	11	U
75-69-4	Trichlorofluoromethane	11	U
107-02-8	Acrolein	52	U
75-35-4	1,1-Dichloroethene	11	U
76-13-1	Freon TF	11	U
67-64-1	Acetone	52	U
74-88-4	Methyl Iodide	9.0	JB
75-15-0	Carbon Disulfide	11	U
107-05-1	Allyl Chloride	11	U
75-09-2	Methylene Chloride	4.5	JB
107-13-1	Acrylonitrile	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
1634-04-4	Methyl-t-Butyl Ether	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
126-99-8	Chloroprene	11	U
594-20-7	2,2-Dichloropropane	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	200	B
107-12-0	Propionitrile	42	U
74-97-5	Bromochloromethane	11	U
126-98-7	Methacrylonitrile	11	U
109-99-9	Tetrahydrofuran	150	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
563-58-6	1,1-Dichloropropene	11	U
71-43-2	Benzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20538

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Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669176

Sample wt/vol: 9.5 (g/mL) G Lab File ID: 669176E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	530	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
74-95-3	Dibromomethane	11	U
80-62-6	Methyl Methacrylate	11	U
123-91-1	1,4-Dioxane	530	U
75-27-4	Bromodichloromethane	11	U
110-75-8	2-Chloroethyl Vinyl Ether	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-10-1	4-Methyl-2-pentanone	52	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
97-63-2	Ethyl Methacrylate	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
142-28-9	1,3-Dichloropropane	11	U
591-78-6	2-Hexanone	52	U
124-48-1	Dibromochloromethane	11	U
106-93-4	1,2-Dibromoethane	11	U
108-90-7	Chlorobenzene	11	U
630-20-6	1,1,1,2-Tetrachloroethane	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (m,p)	3.2	J
95-47-6	Xylene (o)	11	U
1330-20-7	Xylene (total)	3.3	J
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U
98-82-8	Isopropylbenzene	11	U
1476-11-5	cis-1,4-Dichloro-2-butene	11	U
108-86-1	Bromobenzene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
96-18-4	1,2,3-Trichloropropane	11	U

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ARGLAB SAMPLE NO.

NA-S-20538

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Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

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Sample wt/vol: 9.5 (g/mL) G Lab File ID: 669176E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	11	U
103-65-1	n-Propylbenzene	11	U
95-49-8	2-Chlorotoluene	11	U
106-43-4	4-Chlorotoluene	11	U
108-67-8	1,3,5-Trimethylbenzene	11	U
98-06-6	tert-Butylbenzene	11	U
95-63-6	1,2,4-Trimethylbenzene	11	U
135-98-8	sec-Butylbenzene	11	U
541-73-1	1,3-Dichlorobenzene	11	U
99-87-6	4-Isopropyltoluene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
104-51-8	n-Butylbenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
91-20-3	Naphthalene	11	U
87-61-6	1,2,3-Trichlorobenzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20541

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669178

Sample wt/vol: 8.4 (g/mL) G Lab File ID: 669178E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	12	U
74-87-3	Chloromethane	2.7	JB
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	10	JB
75-00-3	Chloroethane	12	U
75-69-4	Trichlorofluoromethane	12	U
107-02-8	Acrolein	59	U
75-35-4	1,1-Dichloroethene	12	U
76-13-1	Freon TF	12	U
67-64-1	Acetone	59	U
74-88-4	Methyl Iodide	3.7	JB
75-15-0	Carbon Disulfide	12	U
107-05-1	Allyl Chloride	12	U
75-09-2	Methylene Chloride	5.0	JB
107-13-1	Acrylonitrile	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
1634-04-4	Methyl-t-Butyl Ether	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
75-34-3	1,1-Dichloroethane	12	U
108-05-4	Vinyl Acetate	12	U
126-99-8	Chloroprene	12	U
594-20-7	2,2-Dichloropropane	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
78-93-3	2-Butanone	310	B
107-12-0	Propionitrile	48	U
74-97-5	Bromochloromethane	12	U
126-98-7	Methacrylonitrile	12	U
109-99-9	Tetrahydrofuran	170	U
67-66-3	Chloroform	34	
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	140	
563-58-6	1,1-Dichloropropene	12	U
71-43-2	Benzene	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20541

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669178

Sample wt/vol: 8.4 (g/mL) G Lab File ID: 669178E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	600	U
107-06-2	1,2-Dichloroethane	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
74-95-3	Dibromomethane	12	U
80-62-6	Methyl Methacrylate	12	U
123-91-1	1,4-Dioxane	600	U
75-27-4	Bromodichloromethane	12	U
110-75-8	2-Chloroethyl Vinyl Ether	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	59	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
97-63-2	Ethyl Methacrylate	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
142-28-9	1,3-Dichloropropane	12	U
591-78-6	2-Hexanone	59	U
124-48-1	Dibromochloromethane	12	U
106-93-4	1,2-Dibromoethane	12	U
108-90-7	Chlorobenzene	12	U
630-20-6	1,1,1,2-Tetrachloroethane	12	U
100-41-4	Ethylbenzene	12	U
1330-20-7	Xylene (m,p)	3.4	J
95-47-6	Xylene (o)	12	U
1330-20-7	Xylene (total)	3.6	J
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
98-82-8	Isopropylbenzene	12	U
1476-11-5	cis-1,4-Dichloro-2-butene	12	U
108-86-1	Bromobenzene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
96-18-4	1,2,3-Trichloropropane	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20541

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669178

Sample wt/vol: 8.4 (g/mL) G Lab File ID: 669178E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	12	U
103-65-1	n-Propylbenzene	12	U
95-49-8	2-Chlorotoluene	12	U
106-43-4	4-Chlorotoluene	12	U
108-67-8	1,3,5-Trimethylbenzene	12	U
98-06-6	tert-Butylbenzene	12	U
95-63-6	1,2,4-Trimethylbenzene	12	U
135-98-8	sec-Butylbenzene	12	U
541-73-1	1,3-Dichlorobenzene	12	U
99-87-6	4-Isopropyltoluene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
95-50-1	1,2-Dichlorobenzene	12	U
104-51-8	n-Butylbenzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
87-68-3	Hexachlorobutadiene	12	U
91-20-3	Naphthalene	12	U
87-61-6	1,2,3-Trichlorobenzene	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20543

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669182

Sample wt/vol: 7.5 (g/mL) G Lab File ID: 669182E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	13	U
74-87-3	Chloromethane	13	U
75-01-4	Vinyl Chloride	13	U
74-83-9	Bromomethane	8.3	JB
75-00-3	Chloroethane	13	U
75-69-4	Trichlorofluoromethane	13	U
107-02-8	Acrolein	66	U
75-35-4	1,1-Dichloroethene	13	U
76-13-1	Freon TF	13	U
67-64-1	Acetone	66	U
74-88-4	Methyl Iodide	6.0	JB
75-15-0	Carbon Disulfide	13	U
107-05-1	Allyl Chloride	13	U
75-09-2	Methylene Chloride	5.5	JB
107-13-1	Acrylonitrile	13	U
156-60-5	trans-1,2-Dichloroethene	13	U
1634-04-4	Methyl-t-Butyl Ether	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
75-34-3	1,1-Dichloroethane	13	U
108-05-4	Vinyl Acetate	13	U
126-99-8	Chloroprene	13	U
594-20-7	2,2-Dichloropropane	13	U
156-59-2	cis-1,2-Dichloroethene	13	U
78-93-3	2-Butanone	290	B
107-12-0	Propionitrile	53	U
74-97-5	Bromochloromethane	13	U
126-98-7	Methacrylonitrile	13	U
109-99-9	Tetrahydrofuran	190	U
67-66-3	Chloroform	5.4	J
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	15	
563-58-6	1,1-Dichloropropene	13	U
71-43-2	Benzene	13	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20543

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669182

Sample wt/vol: 7.5 (g/mL) G Lab File ID: 669182E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	660	U
107-06-2	1,2-Dichloroethane	13	U
79-01-6	Trichloroethene	13	U
78-87-5	1,2-Dichloropropane	13	U
74-95-3	Dibromomethane	13	U
80-62-6	Methyl Methacrylate	13	U
123-91-1	1,4-Dioxane	660	U
75-27-4	Bromodichloromethane	13	U
110-75-8	2-Chloroethyl Vinyl Ether	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
108-10-1	4-Methyl-2-pentanone	66	U
108-88-3	Toluene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
97-63-2	Ethyl Methacrylate	13	U
79-00-5	1,1,2-Trichloroethane	13	U
127-18-4	Tetrachloroethene	13	U
142-28-9	1,3-Dichloropropane	13	U
591-78-6	2-Hexanone	66	U
124-48-1	Dibromochloromethane	13	U
106-93-4	1,2-Dibromoethane	13	U
108-90-7	Chlorobenzene	13	U
630-20-6	1,1,1,2-Tetrachloroethane	13	U
100-41-4	Ethylbenzene	13	U
1330-20-7	Xylene (m,p)	3.8	J
95-47-6	Xylene (o)	13	U
1330-20-7	Xylene (total)	4.0	J
100-42-5	Styrene	13	U
75-25-2	Bromoform	13	U
98-82-8	Isopropylbenzene	13	U
1476-11-5	cis-1,4-Dichloro-2-butene	13	U
108-86-1	Bromobenzene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
96-18-4	1,2,3-Trichloropropane	13	U

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GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	13	U
103-65-1	n-Propylbenzene	13	U
95-49-8	2-Chlorotoluene	13	U
106-43-4	4-Chlorotoluene	13	U
108-67-8	1,3,5-Trimethylbenzene	13	U
98-06-6	tert-Butylbenzene	13	U
95-63-6	1,2,4-Trimethylbenzene	13	U
135-98-8	sec-Butylbenzene	13	U
541-73-1	1,3-Dichlorobenzene	13	U
99-87-6	4-Isopropyltoluene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
95-50-1	1,2-Dichlorobenzene	13	U
104-51-8	n-Butylbenzene	13	U
96-12-8	1,2-Dibromo-3-Chloropropane	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
87-68-3	Hexachlorobutadiene	13	U
91-20-3	Naphthalene	13	U
87-61-6	1,2,3-Trichlorobenzene	13	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20545

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669180

Sample wt/vol: 10.1 (g/mL) G Lab File ID: 669180E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9.9	U
74-87-3	Chloromethane	2.1	JB
75-01-4	Vinyl Chloride	9.9	U
74-83-9	Bromomethane	7.2	JB
75-00-3	Chloroethane	9.9	U
75-69-4	Trichlorofluoromethane	9.9	U
107-02-8	Acrolein	49	U
75-35-4	1,1-Dichloroethene	9.9	U
76-13-1	Freon TF	9.9	U
67-64-1	Acetone	49	U
74-88-4	Methyl Iodide	3.0	JB
75-15-0	Carbon Disulfide	9.9	U
107-05-1	Allyl Chloride	9.9	U
75-09-2	Methylene Chloride	4.0	JB
107-13-1	Acrylonitrile	9.9	U
156-60-5	trans-1,2-Dichloroethene	9.9	U
1634-04-4	Methyl-t-Butyl Ether	9.9	U
540-59-0	1,2-Dichloroethene (total)	9.9	U
75-34-3	1,1-Dichloroethane	9.9	U
108-05-4	Vinyl Acetate	9.9	U
126-99-8	Chloroprene	9.9	U
594-20-7	2,2-Dichloropropane	9.9	U
156-59-2	cis-1,2-Dichloroethene	9.9	U
78-93-3	2-Butanone	210	B
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	9.9	U
126-98-7	Methacrylonitrile	9.9	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	29	
71-55-6	1,1,1-Trichloroethane	9.9	U
56-23-5	Carbon Tetrachloride	35	
563-58-6	1,1-Dichloropropene	9.9	U
71-43-2	Benzene	9.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20545

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669180

Sample wt/vol: 10.1 (g/mL) G Lab File ID: 669180E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	490	U
107-06-2	1,2-Dichloroethane	9.9	U
79-01-6	Trichloroethene	9.9	U
78-87-5	1,2-Dichloropropane	9.9	U
74-95-3	Dibromomethane	9.9	U
80-62-6	Methyl Methacrylate	9.9	U
123-91-1	1,4-Dioxane	490	U
75-27-4	Bromodichloromethane	9.9	U
110-75-8	2-Chloroethyl Vinyl Ether	9.9	U
10061-01-5	cis-1,3-Dichloropropene	9.9	U
108-10-1	4-Methyl-2-pentanone	49	U
108-88-3	Toluene	9.9	U
10061-02-6	trans-1,3-Dichloropropene	9.9	U
97-63-2	Ethyl Methacrylate	9.9	U
79-00-5	1,1,2-Trichloroethane	9.9	U
127-18-4	Tetrachloroethene	9.9	U
142-28-9	1,3-Dichloropropane	9.9	U
591-78-6	2-Hexanone	49	U
124-48-1	Dibromochloromethane	9.9	U
106-93-4	1,2-Dibromoethane	9.9	U
108-90-7	Chlorobenzene	9.9	U
630-20-6	1,1,1,2-Tetrachloroethane	9.9	U
100-41-4	Ethylbenzene	9.9	U
1330-20-7	Xylene (m,p)	2.8	J
95-47-6	Xylene (o)	9.9	U
1330-20-7	Xylene (total)	3.0	J
100-42-5	Styrene	9.9	U
75-25-2	Bromoform	9.9	U
98-82-8	Isopropylbenzene	9.9	U
1476-11-5	cis-1,4-Dichloro-2-butene	9.9	U
108-86-1	Bromobenzene	9.9	U
79-34-5	1,1,2,2-Tetrachloroethane	9.9	U
96-18-4	1,2,3-Trichloropropane	9.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20545

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669180

Sample wt/vol: 10.1 (g/mL) G Lab File ID: 669180E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	9.9	U
103-65-1	n-Propylbenzene	9.9	U
95-49-8	2-Chlorotoluene	9.9	U
106-43-4	4-Chlorotoluene	9.9	U
108-67-8	1,3,5-Trimethylbenzene	9.9	U
98-06-6	tert-Butylbenzene	9.9	U
95-63-6	1,2,4-Trimethylbenzene	9.9	U
135-98-8	sec-Butylbenzene	9.9	U
541-73-1	1,3-Dichlorobenzene	9.9	U
99-87-6	4-Isopropyltoluene	9.9	U
106-46-7	1,4-Dichlorobenzene	9.9	U
95-50-1	1,2-Dichlorobenzene	9.9	U
104-51-8	n-Butylbenzene	9.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	9.9	U
120-82-1	1,2,4-Trichlorobenzene	9.9	U
87-68-3	Hexachlorobutadiene	9.9	U
91-20-3	Naphthalene	9.9	U
87-61-6	1,2,3-Trichlorobenzene	9.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20575

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669179

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 669179E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.9	U
74-87-3	Chloromethane	2.1	JB
75-01-4	Vinyl Chloride	8.9	U
74-83-9	Bromomethane	8.9	B
75-00-3	Chloroethane	8.9	U
75-69-4	Trichlorofluoromethane	8.9	U
107-02-8	Acrolein	44	U
75-35-4	1,1-Dichloroethene	8.9	U
76-13-1	Freon TF	8.9	U
67-64-1	Acetone	44	U
74-88-4	Methyl Iodide	5.0	JB
75-15-0	Carbon Disulfide	8.9	U
107-05-1	Allyl Chloride	8.9	U
75-09-2	Methylene Chloride	6.5	JB
107-13-1	Acrylonitrile	8.9	U
156-60-5	trans-1,2-Dichloroethene	8.9	U
1634-04-4	Methyl-t-Butyl Ether	8.9	U
540-59-0	1,2-Dichloroethene (total)	8.9	U
75-34-3	1,1-Dichloroethane	8.9	U
108-05-4	Vinyl Acetate	8.9	U
126-99-8	Chloroprene	8.9	U
594-20-7	2,2-Dichloropropane	8.9	U
156-59-2	cis-1,2-Dichloroethene	8.9	U
78-93-3	2-Butanone	44	JB
107-12-0	Propionitrile	36	U
74-97-5	Bromochloromethane	8.9	U
126-98-7	Methacrylonitrile	8.9	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	2.7	J
71-55-6	1,1,1-Trichloroethane	8.9	U
56-23-5	Carbon Tetrachloride	77	
563-58-6	1,1-Dichloropropene	8.9	U
71-43-2	Benzene	8.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20575

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669179

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 669179E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	440	U
107-06-2	1,2-Dichloroethane	8.9	U
79-01-6	Trichloroethene	8.9	U
78-87-5	1,2-Dichloropropane	8.9	U
74-95-3	Dibromomethane	8.9	U
80-62-6	Methyl Methacrylate	3.3	J
123-91-1	1,4-Dioxane	440	U
75-27-4	Bromodichloromethane	8.9	U
110-75-8	2-Chloroethyl Vinyl Ether	8.9	U
10061-01-5	cis-1,3-Dichloropropene	8.9	U
108-10-1	4-Methyl-2-pentanone	44	U
108-88-3	Toluene	2.2	JB
10061-02-6	trans-1,3-Dichloropropene	8.9	U
97-63-2	Ethyl Methacrylate	8.9	U
79-00-5	1,1,2-Trichloroethane	8.9	U
127-18-4	Tetrachloroethene	8.9	U
142-28-9	1,3-Dichloropropane	8.9	U
591-78-6	2-Hexanone	44	U
124-48-1	Dibromochloromethane	8.9	U
106-93-4	1,2-Dibromoethane	8.9	U
108-90-7	Chlorobenzene	8.9	U
630-20-6	1,1,1,2-Tetrachloroethane	8.9	U
100-41-4	Ethylbenzene	8.9	U
1330-20-7	Xylene (m,p)	8.9	U
95-47-6	Xylene (o)	8.9	U
1330-20-7	Xylene (total)	8.9	U
100-42-5	Styrene	8.9	U
75-25-2	Bromoform	8.9	U
98-82-8	Isopropylbenzene	8.9	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.9	U
108-86-1	Bromobenzene	8.9	U
79-34-5	1,1,2,2-Tetrachloroethane	8.9	U
96-18-4	1,2,3-Trichloropropane	8.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20575

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669179

Sample wt/vol: 11.2 (g/mL) G Lab File ID: 669179E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.9	U
103-65-1	n-Propylbenzene	8.9	U
95-49-8	2-Chlorotoluene	8.9	U
106-43-4	4-Chlorotoluene	8.9	U
108-67-8	1,3,5-Trimethylbenzene	8.9	U
98-06-6	tert-Butylbenzene	8.9	U
95-63-6	1,2,4-Trimethylbenzene	8.9	U
135-98-8	sec-Butylbenzene	8.9	U
541-73-1	1,3-Dichlorobenzene	8.9	U
99-87-6	4-Isopropyltoluene	8.9	U
106-46-7	1,4-Dichlorobenzene	8.9	U
95-50-1	1,2-Dichlorobenzene	8.9	U
104-51-8	n-Butylbenzene	8.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.9	U
120-82-1	1,2,4-Trichlorobenzene	8.9	U
87-68-3	Hexachlorobutadiene	8.9	U
91-20-3	Naphthalene	8.9	U
87-61-6	1,2,3-Trichlorobenzene	8.9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20636

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669174

Sample wt/vol: 12.9 (g/mL) G Lab File ID: 669174E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.8	U
74-87-3	Chloromethane	3.7	JB
75-01-4	Vinyl Chloride	7.8	U
74-83-9	Bromomethane	13	B
75-00-3	Chloroethane	7.8	U
75-69-4	Trichlorofluoromethane	7.8	U
107-02-8	Acrolein	39	U
75-35-4	1,1-Dichloroethene	7.8	U
76-13-1	Freon TF	7.8	U
67-64-1	Acetone	39	U
74-88-4	Methyl Iodide	8.7	B
75-15-0	Carbon Disulfide	7.8	U
107-05-1	Allyl Chloride	7.8	U
75-09-2	Methylene Chloride	18	B
107-13-1	Acrylonitrile	7.8	U
156-60-5	trans-1,2-Dichloroethene	7.8	U
1634-04-4	Methyl-t-Butyl Ether	7.8	U
540-59-0	1,2-Dichloroethene (total)	7.8	U
75-34-3	1,1-Dichloroethane	7.8	U
108-05-4	Vinyl Acetate	7.8	U
126-99-8	Chloroprene	7.8	U
594-20-7	2,2-Dichloropropane	7.8	U
156-59-2	cis-1,2-Dichloroethene	7.8	U
78-93-3	2-Butanone	180	B
107-12-0	Propionitrile	31	U
74-97-5	Bromochloromethane	7.8	U
126-98-7	Methacrylonitrile	7.8	U
109-99-9	Tetrahydrofuran	110	U
67-66-3	Chloroform	7.8	U
71-55-6	1,1,1-Trichloroethane	7.8	U
56-23-5	Carbon Tetrachloride	7.8	U
563-58-6	1,1-Dichloropropene	7.8	U
71-43-2	Benzene	7.8	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20636

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669174

Sample wt/vol: 12.9 (g/mL) G Lab File ID: 669174E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	390	U
107-06-2	1,2-Dichloroethane	7.8	U
79-01-6	Trichloroethene	7.8	U
78-87-5	1,2-Dichloropropane	7.8	U
74-95-3	Dibromomethane	7.8	U
80-62-6	Methyl Methacrylate	6.5	J
123-91-1	1,4-Dioxane	390	U
75-27-4	Bromodichloromethane	7.8	U
110-75-8	2-Chloroethyl Vinyl Ether	7.8	U
10061-01-5	cis-1,3-Dichloropropene	7.8	U
108-10-1	4-Methyl-2-pentanone	39	U
108-88-3	Toluene	7.8	U
10061-02-6	trans-1,3-Dichloropropene	7.8	U
97-63-2	Ethyl Methacrylate	7.8	U
79-00-5	1,1,2-Trichloroethane	7.8	U
127-18-4	Tetrachloroethene	7.8	U
142-28-9	1,3-Dichloropropane	7.8	U
591-78-6	2-Hexanone	39	U
124-48-1	Dibromochloromethane	7.8	U
106-93-4	1,2-Dibromoethane	7.8	U
108-90-7	Chlorobenzene	7.8	U
630-20-6	1,1,1,2-Tetrachloroethane	7.8	U
100-41-4	Ethylbenzene	7.8	U
1330-20-7	Xylene (m,p)	2.6	J
95-47-6	Xylene (o)	7.8	U
1330-20-7	Xylene (total)	2.7	J
100-42-5	Styrene	7.8	U
75-25-2	Bromoform	7.8	U
98-82-8	Isopropylbenzene	7.8	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.8	U
108-86-1	Bromobenzene	7.8	U
79-34-5	1,1,2,2-Tetrachloroethane	7.8	U
96-18-4	1,2,3-Trichloropropane	7.8	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20636

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669174

Sample wt/vol: 12.9 (g/mL) G Lab File ID: 669174E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	7.8	U
103-65-1	n-Propylbenzene	7.8	U
95-49-8	2-Chlorotoluene	7.8	U
106-43-4	4-Chlorotoluene	7.8	U
108-67-8	1,3,5-Trimethylbenzene	7.8	U
98-06-6	tert-Butylbenzene	7.8	U
95-63-6	1,2,4-Trimethylbenzene	7.8	U
135-98-8	sec-Butylbenzene	7.8	U
541-73-1	1,3-Dichlorobenzene	7.8	U
99-87-6	4-Isopropyltoluene	7.8	U
106-46-7	1,4-Dichlorobenzene	7.8	U
95-50-1	1,2-Dichlorobenzene	7.8	U
104-51-8	n-Butylbenzene	7.8	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.8	U
120-82-1	1,2,4-Trichlorobenzene	7.8	U
87-68-3	Hexachlorobutadiene	7.8	U
91-20-3	Naphthalene	7.8	U
87-61-6	1,2,3-Trichlorobenzene	7.8	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20664

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669181

Sample wt/vol: 13.3 (g/mL) G Lab File ID: 669181E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	7.5	U
74-87-3	Chloromethane	3.3	JB
75-01-4	Vinyl Chloride	7.5	U
74-83-9	Bromomethane	5.6	JB
75-00-3	Chloroethane	7.5	U
75-69-4	Trichlorofluoromethane	7.5	U
107-02-8	Acrolein	37	U
75-35-4	1,1-Dichloroethene	7.5	U
76-13-1	Freon TF	7.5	U
67-64-1	Acetone	37	U
74-88-4	Methyl Iodide	3.5	JB
75-15-0	Carbon Disulfide	7.5	U
107-05-1	Allyl Chloride	7.5	U
75-09-2	Methylene Chloride	5.7	JB
107-13-1	Acrylonitrile	7.5	U
156-60-5	trans-1,2-Dichloroethene	7.5	U
1634-04-4	Methyl-t-Butyl Ether	7.5	U
540-59-0	1,2-Dichloroethene (total)	7.5	U
75-34-3	1,1-Dichloroethane	7.5	U
108-05-4	Vinyl Acetate	7.5	U
126-99-8	Chloroprene	7.5	U
594-20-7	2,2-Dichloropropane	7.5	U
156-59-2	cis-1,2-Dichloroethene	7.5	U
78-93-3	2-Butanone	39	B
107-12-0	Propionitrile	30	U
74-97-5	Bromochloromethane	7.5	U
126-98-7	Methacrylonitrile	7.5	U
109-99-9	Tetrahydrofuran	110	U
67-66-3	Chloroform	7.5	U
71-55-6	1,1,1-Trichloroethane	7.5	U
56-23-5	Carbon Tetrachloride	7.5	U
563-58-6	1,1-Dichloropropene	7.5	U
71-43-2	Benzene	7.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20664

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669181

Sample wt/vol: 13.3 (g/mL) G Lab File ID: 669181E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	380	U
107-06-2	1,2-Dichloroethane	7.5	U
79-01-6	Trichloroethene	7.5	U
78-87-5	1,2-Dichloropropane	7.5	U
74-95-3	Dibromomethane	7.5	U
80-62-6	Methyl Methacrylate	7.5	U
123-91-1	1,4-Dioxane	380	U
75-27-4	Bromodichloromethane	7.5	U
110-75-8	2-Chloroethyl Vinyl Ether	7.5	U
10061-01-5	cis-1,3-Dichloropropene	7.5	U
108-10-1	4-Methyl-2-pentanone	37	U
108-88-3	Toluene	1.9	JB
10061-02-6	trans-1,3-Dichloropropene	7.5	U
97-63-2	Ethyl Methacrylate	7.5	U
79-00-5	1,1,2-Trichloroethane	7.5	U
127-18-4	Tetrachloroethene	7.5	U
142-28-9	1,3-Dichloropropane	7.5	U
591-78-6	2-Hexanone	37	U
124-48-1	Dibromochloromethane	7.5	U
106-93-4	1,2-Dibromoethane	7.5	U
108-90-7	Chlorobenzene	7.5	U
630-20-6	1,1,1,2-Tetrachloroethane	7.5	U
100-41-4	Ethylbenzene	7.5	U
1330-20-7	Xylene (m,p)	7.5	U
95-47-6	Xylene (o)	7.5	U
1330-20-7	Xylene (total)	7.5	U
100-42-5	Styrene	7.5	U
75-25-2	Bromoform	7.5	U
98-82-8	Isopropylbenzene	7.5	U
1476-11-5	cis-1,4-Dichloro-2-butene	7.5	U
108-86-1	Bromobenzene	7.5	U
79-34-5	1,1,2,2-Tetrachloroethane	7.5	U
96-18-4	1,2,3-Trichloropropane	7.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20664

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669181

Sample wt/vol: 13.3 (g/mL) G Lab File ID: 669181E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	7.5	U
103-65-1	n-Propylbenzene	7.5	U
95-49-8	2-Chlorotoluene	7.5	U
106-43-4	4-Chlorotoluene	7.5	U
108-67-8	1,3,5-Trimethylbenzene	7.5	U
98-06-6	tert-Butylbenzene	7.5	U
95-63-6	1,2,4-Trimethylbenzene	7.5	U
135-98-8	sec-Butylbenzene	7.5	U
541-73-1	1,3-Dichlorobenzene	7.5	U
99-87-6	4-Isopropyltoluene	7.5	U
106-46-7	1,4-Dichlorobenzene	7.5	U
95-50-1	1,2-Dichlorobenzene	7.5	U
104-51-8	n-Butylbenzene	7.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.5	U
120-82-1	1,2,4-Trichlorobenzene	7.5	U
87-68-3	Hexachlorobutadiene	7.5	U
91-20-3	Naphthalene	7.5	U
87-61-6	1,2,3-Trichlorobenzene	7.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20735

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669175

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 669175E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	4.1	JB
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	18	B
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	51	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	51	U
74-88-4	Methyl Iodide	9.9	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	4.2	JB
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	230	B
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20735

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669175

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 669175E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	510	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	510	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	51	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	51	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	3.1	J
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	3.3	J
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20735

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669175

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 669175E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20750

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669177

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 669177E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	2.9	JB
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	6.0	JB
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	51	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	51	U
74-88-4	Methyl Iodide	7.5	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	3.2	JB
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	52	B
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20750

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669177

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 669177E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	510	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	510	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	51	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	51	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20750

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669177

Sample wt/vol: 9.8 (g/mL) G Lab File ID: 669177E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669183

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 669183E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	5.7	J
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	14	
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	13	
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	9.1	J
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	69	
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	2.2	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669183

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 669183E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	500	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	3.0	J
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114309

Matrix: (soil/water) SOIL Lab Sample ID: 669183

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 669183E

Level: (low/med) MED Date Received: 05/12/06

% Moisture: not dec. _____ Date Analyzed: 05/19/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	3.7	J
87-68-3	Hexachlorobutadiene	2.2	J
91-20-3	Naphthalene	4.4	J
87-61-6	1,2,3-Trichlorobenzene	3.5	J

SEVERN TRENT STL

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248
www.stl-inc.com

May 31, 2006

Mr. Clyde Dennis
Argonne National Laboratory
9700 S. Cass Avenue
Building 203, Office 149
Argonne, IL 60439

Re: Laboratory Project No. 21005
Case: NAVARRE; SDG: 114417

Dear Mr. Dennis:

Enclosed are analytical results for samples that were received by STL Burlington on May 19th, 2006. Laboratory identification numbers were assigned, and designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 05/19/06 ETR No: 114417		
669921	NA-S-20673	05/16/06	Liquid
669922	NA-S-20578	05/16/06	Liquid
669923	NA-S-20808	05/16/06	Liquid
669924	NA-S-20773	05/16/06	Liquid
669925	NA-S-20783	05/16/06	Liquid
669926	NA-S-20689	05/16/06	Liquid
669927	MEOH BLANK	05/16/06	Liquid

Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal. It should be noted that at the time that they were received, the sample volumes were at near ambient temperature.

The samples were analyzed by Method 8260B, using a low-level calibration. In performing the analytical work, 500 microliters of the methanol extract were added to the 5 milliliter purge volume. The recovery of the surrogate controls were generally elevated in the analysis of sample NA-S-20673 (approximating 135 percent). Additionally, the analysis of samples MEOH BLANK and NA-S-20808 did yield a high recovery of toluene-d_8 (approximating 119 percent). Each of the analyses associated with the sample set exhibited good internal standard stability. Two types of laboratory control sample analyses were performed as part of the analytical sequence. One was performed to evaluate method performance, and one was performed with 500 microliters of methanol added to the purge volume in order to characterize the affect on the analytical process. With the exception of that for dichlorodifluoromethane (69 percent) and methyl-t-butyl ether (77 percent), the recovery of each target analyte was within the established control range in the laboratory control sample analysis that defined the method performance. In the laboratory control sample analysis with methanol, several of the earlier eluting compounds did exhibit lower recoveries, as did isobutyl alcohol,1,4-dioxane, and certain of the other later eluting compounds. Most profoundly affected was the performance of isobutyl alcohol and 1,4-dioxane, for which the

recovery values were below 20 percent. The recoveries of chloroform and carbon tetrachloride were within the control range in each of the laboratory control sample analyses. It should be noted, however, that the derived recovery value for carbon tetrachloride was at the lower control limit of 75 percent in the laboratory control sample analysis with 500 milliliters of methanol. Matrix spike and matrix spike duplicate analyses were not performed on samples in this sample set. The analysis of the instrument blank that was analyzed in association with the samples was free of contamination. The laboratory did associate the analysis of sample MEOH BLANK with each of the other field sample analyses in order to reference the blank association, and accordingly qualify the reported results.

If there are any questions regarding this submittal, please contact me at (802) 655-1203.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

Sincerely,

Kirk F. Young
Project Manager

Enclosure

STL Burlington Data Qualifier Definitions

Organic

U: Compound analyzed but not detected at a concentration above the reporting limit.

J: Estimated value.

N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.

P: SW-846: Greater than 40% difference for detected concentrations between two GC columns. Unless otherwise specified the higher of the two values is reported on the Form I.

CLP SOW: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified the lower of the two values is reported on the Form I.

C: Pesticide result whose identification has been confirmed by GC/MS.

B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.

E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.

D: Concentrations identified from analysis of the sample at a secondary dilution.

A: Tentatively identified compound is a suspected aldol condensation product.

X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

E: Reported value is estimated due to the presence of interference.

N: Matrix spike sample recovery is not within control limits.

* Duplicate sample analysis is not within control limits.

B: The result reported is less than the reporting limit but greater than the instrument detection limit.

U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P ICP-AES
MS ICP-MS
CV Cold Vapor AA
AS Semi-Automated Spectrophotometric

MATRIX: Soil - MeOH
RECEIVING LAB: STL - Burlington
PROJECT/SITE: NAVARRE
SAMPLER(S) (Signature): [signature]

ARGONNE NATIONAL LABORATORY CHAIN OF CUSTODY RECORD*

Shipping Container No.
Shipping Info:
ANL Field Contact (Name & Temporary Phone):

DATE OF COLLECTION	SAMPLE ID NUMBER(S)	Number of containers	ANALYSIS: VOC's										REMARKS: Volume of MeOH (mL)	REMARKS: Weight (g)
05/16/06	NA-S-20673 (1)	1-20mL	✓										10mL	11.859
	NA-S-20~~7~~578 (20A)		✓											9.009
	NA-S-20808 (10A)		✓											9.658
	NA-S-20773 (30A)		✓											7.304
	NA-S-20783 (20A)		✓											9.064
	NA-S-20689 (10A)		✓											9.871
	MeOH Blank		✓											

Relinquished by (Signature)	Date	Time	Received by (Signature)	Relinquished by (Signature)	Date	Time	Received by (Signature)
[signature]	5/19/06	9am					

Relinquished by (Signature)	Date	Time	Received for Laboratory by	Date	Time	Remarks
[signature]	05/18/06	9:32AM	[signature]	5/19/06	1020	

Y	N	FOR LAB USE ONLY
		Custody seal was intact when shipment received.
		Sample containers were intact when received.
		Shipment was at required temperature when received.
		Sample labels, Tags and COC agree.

*A sample is under custody if:
1. It is in your possession; or,
2. It is in your view, after having been in your possession; or,
3. It was in your possession and you locked it up; or,
4. It is in a designated secure area.

Argonne National Laboratory, Applied Geosciences & Environmental Mgt. Group, Environmental Research Division, 9700 S. Cass Avenue, Argonne, IL 60439

ER-160 (4-01)

SEVERN TRENT STL

METHOD 8260B

VOLATILE ORGANIC ANALYSIS

SAMPLE DATA SUMMARY PACKAGE

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20578

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669922

Sample wt/vol: 9.0 (g/mL) G Lab File ID: 669922

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	11	U
74-87-3	Chloromethane	2.7	JB
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	8.7	JB
75-00-3	Chloroethane	11	U
75-69-4	Trichlorofluoromethane	11	U
107-02-8	Acrolein	55	U
75-35-4	1,1-Dichloroethene	11	U
76-13-1	Freon TF	11	U
67-64-1	Acetone	55	U
74-88-4	Methyl Iodide	7.4	JB
75-15-0	Carbon Disulfide	11	U
107-05-1	Allyl Chloride	11	U
75-09-2	Methylene Chloride	44	B
107-13-1	Acrylonitrile	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
1634-04-4	Methyl-t-Butyl Ether	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
126-99-8	Chloroprene	11	U
594-20-7	2,2-Dichloropropane	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	55	U
107-12-0	Propionitrile	44	U
74-97-5	Bromochloromethane	11	U
126-98-7	Methacrylonitrile	11	U
109-99-9	Tetrahydrofuran	160	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	3.3	JB
56-23-5	Carbon Tetrachloride	5.9	J
563-58-6	1,1-Dichloropropene	11	U
71-43-2	Benzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20578

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669922

Sample wt/vol: 9.0 (g/mL) G Lab File ID: 669922

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	550	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
74-95-3	Dibromomethane	11	U
80-62-6	Methyl Methacrylate	11	U
123-91-1	1,4-Dioxane	550	U
75-27-4	Bromodichloromethane	11	U
110-75-8	2-Chloroethyl Vinyl Ether	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-10-1	4-Methyl-2-pentanone	55	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
97-63-2	Ethyl Methacrylate	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
142-28-9	1,3-Dichloropropane	11	U
591-78-6	2-Hexanone	55	U
124-48-1	Dibromochloromethane	11	U
106-93-4	1,2-Dibromoethane	11	U
108-90-7	Chlorobenzene	11	U
630-20-6	1,1,1,2-Tetrachloroethane	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (m,p)	11	U
95-47-6	Xylene (o)	11	U
1330-20-7	Xylene (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U
98-82-8	Isopropylbenzene	11	U
1476-11-5	cis-1,4-Dichloro-2-butene	11	U
108-86-1	Bromobenzene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
96-18-4	1,2,3-Trichloropropane	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20578

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669922

Sample wt/vol: 9.0 (g/mL) G Lab File ID: 669922

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	11	U
103-65-1	n-Propylbenzene	11	U
95-49-8	2-Chlorotoluene	11	U
106-43-4	4-Chlorotoluene	11	U
108-67-8	1,3,5-Trimethylbenzene	11	U
98-06-6	tert-Butylbenzene	11	U
95-63-6	1,2,4-Trimethylbenzene	11	U
135-98-8	sec-Butylbenzene	11	U
541-73-1	1,3-Dichlorobenzene	11	U
99-87-6	4-Isopropyltoluene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
104-51-8	n-Butylbenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
91-20-3	Naphthalene	11	U
87-61-6	1,2,3-Trichlorobenzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20673

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669921

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 669921

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	8.4	U
74-87-3	Chloromethane	2.2	JB
75-01-4	Vinyl Chloride	8.4	U
74-83-9	Bromomethane	8.8	B
75-00-3	Chloroethane	8.4	U
75-69-4	Trichlorofluoromethane	8.4	U
107-02-8	Acrolein	42	U
75-35-4	1,1-Dichloroethene	8.4	U
76-13-1	Freon TF	8.4	U
67-64-1	Acetone	42	U
74-88-4	Methyl Iodide	6.0	JB
75-15-0	Carbon Disulfide	8.4	U
107-05-1	Allyl Chloride	8.4	U
75-09-2	Methylene Chloride	7.0	JB
107-13-1	Acrylonitrile	8.4	U
156-60-5	trans-1,2-Dichloroethene	8.4	U
1634-04-4	Methyl-t-Butyl Ether	8.4	U
540-59-0	1,2-Dichloroethene (total)	8.4	U
75-34-3	1,1-Dichloroethane	8.4	U
108-05-4	Vinyl Acetate	8.4	U
126-99-8	Chloroprene	8.4	U
594-20-7	2,2-Dichloropropane	8.4	U
156-59-2	cis-1,2-Dichloroethene	8.4	U
78-93-3	2-Butanone	20	J
107-12-0	Propionitrile	34	U
74-97-5	Bromochloromethane	8.4	U
126-98-7	Methacrylonitrile	8.4	U
109-99-9	Tetrahydrofuran	120	U
67-66-3	Chloroform	11	B
71-55-6	1,1,1-Trichloroethane	8.4	U
56-23-5	Carbon Tetrachloride	110	
563-58-6	1,1-Dichloropropene	8.4	U
71-43-2	Benzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20673

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669921

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 669921

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	420	U
107-06-2	1,2-Dichloroethane	8.4	U
79-01-6	Trichloroethene	8.4	U
78-87-5	1,2-Dichloropropane	8.4	U
74-95-3	Dibromomethane	8.4	U
80-62-6	Methyl Methacrylate	8.4	U
123-91-1	1,4-Dioxane	420	U
75-27-4	Bromodichloromethane	8.4	U
110-75-8	2-Chloroethyl Vinyl Ether	8.4	U
10061-01-5	cis-1,3-Dichloropropene	8.4	U
108-10-1	4-Methyl-2-pentanone	42	U
108-88-3	Toluene	8.4	U
10061-02-6	trans-1,3-Dichloropropene	8.4	U
97-63-2	Ethyl Methacrylate	8.4	U
79-00-5	1,1,2-Trichloroethane	8.4	U
127-18-4	Tetrachloroethene	8.4	U
142-28-9	1,3-Dichloropropane	8.4	U
591-78-6	2-Hexanone	42	U
124-48-1	Dibromochloromethane	8.4	U
106-93-4	1,2-Dibromoethane	8.4	U
108-90-7	Chlorobenzene	8.4	U
630-20-6	1,1,1,2-Tetrachloroethane	8.4	U
100-41-4	Ethylbenzene	8.4	U
1330-20-7	Xylene (m,p)	8.4	U
95-47-6	Xylene (o)	8.4	U
1330-20-7	Xylene (total)	8.4	U
100-42-5	Styrene	8.4	U
75-25-2	Bromoform	8.4	U
98-82-8	Isopropylbenzene	8.4	U
1476-11-5	cis-1,4-Dichloro-2-butene	8.4	U
108-86-1	Bromobenzene	8.4	U
79-34-5	1,1,2,2-Tetrachloroethane	8.4	U
96-18-4	1,2,3-Trichloropropane	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20673

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669921

Sample wt/vol: 11.9 (g/mL) G Lab File ID: 669921

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	8.4	U
103-65-1	n-Propylbenzene	8.4	U
95-49-8	2-Chlorotoluene	8.4	U
106-43-4	4-Chlorotoluene	8.4	U
108-67-8	1,3,5-Trimethylbenzene	8.4	U
98-06-6	tert-Butylbenzene	8.4	U
95-63-6	1,2,4-Trimethylbenzene	8.4	U
135-98-8	sec-Butylbenzene	8.4	U
541-73-1	1,3-Dichlorobenzene	8.4	U
99-87-6	4-Isopropyltoluene	8.4	U
106-46-7	1,4-Dichlorobenzene	8.4	U
95-50-1	1,2-Dichlorobenzene	8.4	U
104-51-8	n-Butylbenzene	8.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	8.4	U
120-82-1	1,2,4-Trichlorobenzene	8.4	U
87-68-3	Hexachlorobutadiene	8.4	U
91-20-3	Naphthalene	8.4	U
87-61-6	1,2,3-Trichlorobenzene	8.4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20689

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669926

Sample wt/vol: 9.9 (g/mL) G Lab File ID: 669926

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	4.3	JB
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	3.3	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	6.1	JB
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	27	J
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	16	
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20689

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669926

Sample wt/vol: 9.9 (g/mL) G Lab File ID: 669926

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	510	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	510	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20689

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669926

Sample wt/vol: 9.9 (g/mL) G Lab File ID: 669926

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20773

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669924

Sample wt/vol: 7.3 (g/mL) G Lab File ID: 669924

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	14	U
74-87-3	Chloromethane	14	U
75-01-4	Vinyl Chloride	14	U
74-83-9	Bromomethane	8.2	JB
75-00-3	Chloroethane	14	U
75-69-4	Trichlorofluoromethane	14	U
107-02-8	Acrolein	68	U
75-35-4	1,1-Dichloroethene	14	U
76-13-1	Freon TF	14	U
67-64-1	Acetone	68	U
74-88-4	Methyl Iodide	14	U
75-15-0	Carbon Disulfide	14	U
107-05-1	Allyl Chloride	14	U
75-09-2	Methylene Chloride	8.9	JB
107-13-1	Acrylonitrile	14	U
156-60-5	trans-1,2-Dichloroethene	14	U
1634-04-4	Methyl-t-Butyl Ether	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
75-34-3	1,1-Dichloroethane	14	U
108-05-4	Vinyl Acetate	14	U
126-99-8	Chloroprene	14	U
594-20-7	2,2-Dichloropropane	14	U
156-59-2	cis-1,2-Dichloroethene	14	U
78-93-3	2-Butanone	33	J
107-12-0	Propionitrile	55	U
74-97-5	Bromochloromethane	14	U
126-98-7	Methacrylonitrile	14	U
109-99-9	Tetrahydrofuran	190	U
67-66-3	Chloroform	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
563-58-6	1,1-Dichloropropene	14	U
71-43-2	Benzene	14	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20773

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669924

Sample wt/vol: 7.3 (g/mL) G Lab File ID: 669924

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	680	U
107-06-2	1,2-Dichloroethane	14	U
79-01-6	Trichloroethene	14	U
78-87-5	1,2-Dichloropropane	14	U
74-95-3	Dibromomethane	14	U
80-62-6	Methyl Methacrylate	14	U
123-91-1	1,4-Dioxane	680	U
75-27-4	Bromodichloromethane	14	U
110-75-8	2-Chloroethyl Vinyl Ether	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
108-10-1	4-Methyl-2-pentanone	68	U
108-88-3	Toluene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
97-63-2	Ethyl Methacrylate	14	U
79-00-5	1,1,2-Trichloroethane	14	U
127-18-4	Tetrachloroethene	14	U
142-28-9	1,3-Dichloropropane	14	U
591-78-6	2-Hexanone	68	U
124-48-1	Dibromochloromethane	14	U
106-93-4	1,2-Dibromoethane	14	U
108-90-7	Chlorobenzene	14	U
630-20-6	1,1,1,2-Tetrachloroethane	14	U
100-41-4	Ethylbenzene	14	U
1330-20-7	Xylene (m,p)	14	U
95-47-6	Xylene (o)	14	U
1330-20-7	Xylene (total)	14	U
100-42-5	Styrene	14	U
75-25-2	Bromoform	14	U
98-82-8	Isopropylbenzene	14	U
1476-11-5	cis-1,4-Dichloro-2-butene	14	U
108-86-1	Bromobenzene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
96-18-4	1,2,3-Trichloropropane	14	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20773

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669924

Sample wt/vol: 7.3 (g/mL) G Lab File ID: 669924

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	14	U
103-65-1	n-Propylbenzene	14	U
95-49-8	2-Chlorotoluene	14	U
106-43-4	4-Chlorotoluene	14	U
108-67-8	1,3,5-Trimethylbenzene	14	U
98-06-6	tert-Butylbenzene	14	U
95-63-6	1,2,4-Trimethylbenzene	14	U
135-98-8	sec-Butylbenzene	14	U
541-73-1	1,3-Dichlorobenzene	14	U
99-87-6	4-Isopropyltoluene	14	U
106-46-7	1,4-Dichlorobenzene	14	U
95-50-1	1,2-Dichlorobenzene	14	U
104-51-8	n-Butylbenzene	14	U
96-12-8	1,2-Dibromo-3-Chloropropane	14	U
120-82-1	1,2,4-Trichlorobenzene	14	U
87-68-3	Hexachlorobutadiene	14	U
91-20-3	Naphthalene	14	U
87-61-6	1,2,3-Trichlorobenzene	14	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20783

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669925

Sample wt/vol: 9.1 (g/mL) G Lab File ID: 669925

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	11	U
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	2.9	JB
75-00-3	Chloroethane	11	U
75-69-4	Trichlorofluoromethane	11	U
107-02-8	Acrolein	55	U
75-35-4	1,1-Dichloroethene	11	U
76-13-1	Freon TF	11	U
67-64-1	Acetone	55	U
74-88-4	Methyl Iodide	3.9	JB
75-15-0	Carbon Disulfide	11	U
107-05-1	Allyl Chloride	11	U
75-09-2	Methylene Chloride	6.4	JB
107-13-1	Acrylonitrile	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
1634-04-4	Methyl-t-Butyl Ether	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
126-99-8	Chloroprene	11	U
594-20-7	2,2-Dichloropropane	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	55	U
107-12-0	Propionitrile	44	U
74-97-5	Bromochloromethane	11	U
126-98-7	Methacrylonitrile	11	U
109-99-9	Tetrahydrofuran	150	U
67-66-3	Chloroform	3.6	JB
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	13	
563-58-6	1,1-Dichloropropene	11	U
71-43-2	Benzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20783

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669925

Sample wt/vol: 9.1 (g/mL) G Lab File ID: 669925

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	550	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
74-95-3	Dibromomethane	11	U
80-62-6	Methyl Methacrylate	11	U
123-91-1	1,4-Dioxane	550	U
75-27-4	Bromodichloromethane	11	U
110-75-8	2-Chloroethyl Vinyl Ether	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-10-1	4-Methyl-2-pentanone	55	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
97-63-2	Ethyl Methacrylate	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
142-28-9	1,3-Dichloropropane	11	U
591-78-6	2-Hexanone	55	U
124-48-1	Dibromochloromethane	11	U
106-93-4	1,2-Dibromoethane	11	U
108-90-7	Chlorobenzene	11	U
630-20-6	1,1,1,2-Tetrachloroethane	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (m,p)	11	U
95-47-6	Xylene (o)	11	U
1330-20-7	Xylene (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U
98-82-8	Isopropylbenzene	11	U
1476-11-5	cis-1,4-Dichloro-2-butene	11	U
108-86-1	Bromobenzene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
96-18-4	1,2,3-Trichloropropane	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20783

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669925

Sample wt/vol: 9.1 (g/mL) G Lab File ID: 669925

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	11	U
103-65-1	n-Propylbenzene	11	U
95-49-8	2-Chlorotoluene	11	U
106-43-4	4-Chlorotoluene	11	U
108-67-8	1,3,5-Trimethylbenzene	11	U
98-06-6	tert-Butylbenzene	11	U
95-63-6	1,2,4-Trimethylbenzene	11	U
135-98-8	sec-Butylbenzene	11	U
541-73-1	1,3-Dichlorobenzene	11	U
99-87-6	4-Isopropyltoluene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
104-51-8	n-Butylbenzene	11	U
96-12-8	1,2-Dibromo-3-Chloropropane	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
91-20-3	Naphthalene	11	U
87-61-6	1,2,3-Trichlorobenzene	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20808

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669923

Sample wt/vol: 9.7 (g/mL) G Lab File ID: 669923

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	7.7	JB
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	51	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	51	U
74-88-4	Methyl Iodide	4.4	JB
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	6.7	JB
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	26	J
107-12-0	Propionitrile	41	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	3.2	J
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20808

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669923

Sample wt/vol: 9.7 (g/mL) G Lab File ID: 669923

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	520	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	520	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	51	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	51	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

NA-S-20808

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669923

Sample wt/vol: 9.7 (g/mL) G Lab File ID: 669923

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669927

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 669927

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	3.5	J
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	13	
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
107-02-8	Acrolein	50	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	Freon TF	10	U
67-64-1	Acetone	50	U
74-88-4	Methyl Iodide	9.5	J
75-15-0	Carbon Disulfide	10	U
107-05-1	Allyl Chloride	10	U
75-09-2	Methylene Chloride	200	
107-13-1	Acrylonitrile	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl-t-Butyl Ether	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
126-99-8	Chloroprene	10	U
594-20-7	2,2-Dichloropropane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	50	U
107-12-0	Propionitrile	40	U
74-97-5	Bromochloromethane	10	U
126-98-7	Methacrylonitrile	10	U
109-99-9	Tetrahydrofuran	140	U
67-66-3	Chloroform	3.2	J
71-55-6	1,1,1-Trichloroethane	55	
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-Dichloropropene	10	U
71-43-2	Benzene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669927

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 669927

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
78-83-1	Isobutyl Alcohol	500	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
80-62-6	Methyl Methacrylate	10	U
123-91-1	1,4-Dioxane	500	U
75-27-4	Bromodichloromethane	10	U
110-75-8	2-Chloroethyl Vinyl Ether	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
97-63-2	Ethyl Methacrylate	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (m,p)	10	U
95-47-6	Xylene (o)	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
1476-11-5	cis-1,4-Dichloro-2-butene	10	U
108-86-1	Bromobenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
96-18-4	1,2,3-Trichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ARGLAB SAMPLE NO.

MEOH BLANK

Lab Name: STL BURLINGTON Contract: 21005

Lab Code: STLVT Case No.: NAVARRE SAS No.: SDG No.: 114417

Matrix: (soil/water) SOIL Lab Sample ID: 669927

Sample wt/vol: 10.0 (g/mL) G Lab File ID: 669927

Level: (low/med) MED Date Received: 05/19/06

% Moisture: not dec. _____ Date Analyzed: 05/24/06

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 500(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
110-57-6	trans-1,4-Dichloro-2-butene	10	U
103-65-1	n-Propylbenzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethylbenzene	10	U
98-06-6	tert-Butylbenzene	10	U
95-63-6	1,2,4-Trimethylbenzene	10	U
135-98-8	sec-Butylbenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
99-87-6	4-Isopropyltoluene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butylbenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U

Supplement 6:

Wastewater Characterization Data

M.D. Chemical and Testing, Inc.
P.O. Box 19321, Forbes Field, Bldg 281, Topeka, KS 66619
Kansas Certification No. E-10135 (785)862-3500 fax(785)862-5132

Sample Collected By: T.G.
Received In lab: 6/15/2006
Date Reported: 6/19/2006
Project Name: Centralia/Morrill/Everest
Project Number:

Lab Number: 1062574
Client: Larsen & Associates
913 Rhode Island
P.O. Box 1447
Lawrence, KS 66044
ATTN: Lisa Larsen

Analysis	Method	Result	Detection Limit	Units	Date Analyzed	Analyst
1062574-04 **Sample ID:** NV-CM-2-20220						
Sampled: 6/12/2006						
VOLATILE ORGANICS - METHOD						
2-Chloroethyl vinyl ether	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)	6/15/2006	TPJ
Vinyl Chloride	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Trichlorofluoromethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,1-Dichloroethylene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Dichloromethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Trans 1,2-Dichloroethylene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,1-Dichloroethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Trichloromethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,1,1-Trichloroethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Tetrachloromethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Benzene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,2-Dichloroethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Trichloroethylene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,2-Dichloropropane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Bromodichloromethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Trans 1,3-Dichloropropene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Toluene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Cis-1,3-Dichloropropene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,1,2-Trichloroethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Tetrachloroethylene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Dibromochloromethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Chlorobenzene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Ethylbenzene	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
Bromoform	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,1,2,2-Tetrachloroethane	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,3/1,4-Xylene(m/p)	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,2-Xylene(o)	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,3-Dichlorobenzene(m)	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,4-Dichlorobenzene(p)	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		
1,2-Dichlorobenzene(o)	EPA 624/8260	Not Detected	[0.5]	µg/L(ppb)		

Supplement 7:

Property Documentation

Supplement 7:

Property Documentation

Argonne's description of property boundaries for the former CCC/USDA grain storage facility at Navarre (Figure S7.1)[a] is based on the following three levels of documentation:

- *Aerial Photographs.* A series of nine historical aerial photographs taken in 1957–2002 provides a visual record of the changing grain storage operations over time and their positions relative to fixed landmarks.

- *Lease Records.* Lease records obtained from the Atchison, Topeka, and Santa Fe Railroad (ATSF) by the U.S. Environmental Protection Agency in 1992 — and provided to the CCC/USDA and Argonne in 2000 — identify the location of the former CCC/USDA facility and record the expansion of the Navarre Co-op over time. A timeline related to property records is in Table S7.1.[a]

- *Survey Data.* Survey coordinates of sampling locations and selected structures during the 2006 investigation fix these positions accurately.

S7.1 Aerial Photographs

The following descriptions refer to some features that are labeled in Figure S7.1 but not in the individual historical photographs.

S7.1.1 July 13, 1957, Photograph

The 1957 photograph (Figure S7.2a, left) shows the former CCC/USDA grain storage facility at the height of its operation. An extension of Strole Street (refer to Figure S7.1) provides access for the former CCC/USDA facility and the former stockyard 50 ft to the north. Pastureland (the site of the future ball field) is to the northwest of the former CCC/USDA

[a] Figures and a table follow the introductory text. These are followed by copies of the property documents on file at Argonne.

facility, and the former railway depot is to the east. The concrete elevator to the north has been recently added (as of 1957) by the Co-op at the location of a northern stockyard identified in lease documents (Section S7.2).

S7.1.2 August 12, 1965, Photograph

The 1965 photograph (Figure S7.2a, right) shows that eastern silos (refer to Figure S7.1) with an underground tunnel and overhead walk have been added by the Co-op near the concrete elevator. The flat storage building has been constructed, and drums and other aboveground storage containers lie immediately to its south. Remnants of the stockyard are still visible in the original photograph 50 ft north of the former CCC/USDA facility. The Strole Street extension has been removed, and the area northwest of the former CCC/USDA facility is still pastureland. A gravel or dirt roadway has been extended along the western edge of the flat storage building to provide access to the former CCC/USDA facility. Shadows show that only five bins remain within the former CCC/USDA property, but all of the bin bases are still present. The depot is still visible east of the former CCC/USDA facility.

S7.1.3 June 28, 1971, Photograph

The 1971 photograph (Figure S7.2b, left) shows that the Co-op has expanded southward and has constructed the dry fertilizer storage building (refer to Figure S7.1) inside the northern border of the former CCC/USDA property. Bulk liquid storage is visible just north of the dry storage building. Remnants of the stockyard 50 ft north of the former CCC/USDA property and the depot to the east are no longer apparent. Hard-packed gravel now covers the northern portion of the former CCC/USDA facility, but the southern portion has been returned to cropland. A ball park is visible northwest of the former CCC/USDA facility.

S7.1.4 October 31, 1976, Photograph

The 1976 photograph (Figure S7.2b, right) shows that the Co-op has grown across the entire former CCC/USDA facility, and an office and scale have been constructed in the northern portion of the Co-op. Liquid fertilizer storage tanks have been added north of the dry fertilizer building. Anhydrous ammonia tanks in an “L” configuration are visible south of the dry fertilizer

storage building. Hard-packed gravel extends throughout the Co-op facility. The baseball field seen in the 1971 photograph is no longer present.

S7.1.5 June 14, 1980, Photograph

The 1980 photograph (Figure S7.2c, left) shows that a fuel tank area has been added south of the anhydrous ammonia tanks ("L" configuration), near the southern extent of the former CCC/USDA facility.

S7.1.6 September 27, 1981, Photograph

The 1981 photograph (Figure S7.2c, right) shows that the Co-op has expanded south of the former CCC/USDA facility, adding molasses tanks south of the anhydrous ammonia tank storage area. The shadows of the molasses tanks are visible.

S7.1.7 May 25, 1985, Photograph

In the 1985 photograph (Figure S7.2d, left), a large excavated pit is visible south of the molasses tanks, south of the former CCC/USDA facility. Deposition #89 by Daryl Anderson (Co-op manager) states the following: "In approximately 1987, the Co-op constructed a shop area in the northern portion of the Co-op. Prior to construction, fill dirt was taken from the southernmost end of the Co-op property leaving an indentation approximately 10 ft by 30 ft in size. The area was subsequently used as a burn pit and general waste disposal area."

S7.1.8 October 1, 1991, Photograph

Container storage is visible in the 1991 photograph (Figure S7.2d, right) throughout the former ball field northwest of the former CCC/USDA property; a surface drainage pathway appears to bisect that storage area. The molasses tanks and the portable anhydrous ammonia storage tank area (south of the fuel tank area) are visible at the southern end of the Co-op area. The large pit to the south (seen in the 1985 photograph) has been filled in.

S7.1.9 2002 Photograph

The 2002 aerial photograph (Figure S7.2e) shows the Co-op site basically as it exists at present. A concrete-bermed area for storage of bulk liquid fertilizer lies just south of the flat storage building (north of the former bulk storage area seen in the 1991 photograph), at the location of the former stockyard.

S7.2 Lease Records

Lease records and associated property documents specify the location of the former CCC/USDA grain storage facility and provide information about its operations, as well as the locations of expanding operations at the Navarre Co-op. Significant lease records and property documents are summarized below.

S7.2.1 Lease Records for the Former CCC/USDA Grain Storage Facility

A lease agreement was entered into on June 21, 1954, between the ATSF and the CCC/USDA. The lease was terminated on January 17, 1966 (per an agreement dated February 2, 1966). The 1965 aerial photo (Figure S7.2a, right) shows that by August 1965 only five bins remained at the facility; according to the Johnson deposition, Volume 1, page 102, the CCC/USDA grain bins were being removed as early as 1963. The location of the former CCC/USDA facility, as shown in Figure S7.3 (which accompanied the lease agreement), is west of the depot and 50 ft south of the railroad stockyard (".35 stockyard"). The dimensions and location of the former CCC/USDA property are determined by mile markers MP44 + 2365 ft and MP44 + 1981 ft (toward the bottom of Figure S7.3). The area of the former CCC/USDA property is calculated as follows:

Length = 2,365 ft – 1,981 ft = 384 ft

Width (difficult to read in Figure S7.3) = 98 ft

Area = 384 ft $\times$ 98 ft = 37,632 ft^2

The 1954 CCC/USDA lease appears overlaid on the 2002 aerial photograph in Figure S7.1.

S7.2.2 Lease Records for the Navarre Co-op

The Navarre Farmers Union Cooperative Association was incorporated on April 18, 1919. Numerous lease documents on file (or referenced in subsequent lease documents) show the southward expansion of the Co-op operations from the northern extent of the current property, toward and beyond the former CCC/USDA grain storage facility. Figures accompanying eight of the lease documents (discussed below) are significant, because they fix locations and dimensions for not only the Co-op property in general but also for the flat storage building north of the former CCC/USDA facility and the dry fertilizer storage building just inside the northern boundary of the former CCC/USDA facility.

S7.2.2.1 May 1, 1916, Lease (Figure S7.4)

The earliest lease on file at Argonne for the Navarre Co-op property is between the ATSF and the Fullington Lumber Company. This 1916 lease describes a 3,776-ft^2 parcel (32 ft by 118 ft) in the northern portion of the current Co-op property. This 1916 lease is cited in a subsequent (1921) lease between ATSF and the Navarre Co-op, transferring control of the property from the lumber company to the Co-op. The figure accompanying the 1916 lease (Figure S7.4) shows the location of the 3,776-ft^2 parcel between mile markers MP44 + 3059 ft and MP44 + 2941 ft. Just south of the leased parcel are the Hoffman Elevator Company office and a (now demolished) wooden elevator. Farther to the south is the northern stockyard, the future location of the Navarre Co-op concrete elevator.

S7.2.2.2 July 6, 1916, Lease (Not on File)

Not on file at Argonne is a Co-op lease dated July 6, 1916, that is cited in the June 1, 1921, lease (Section S7.2.2.4). The property described lies between mile markers MP44 + 3059 and MP44 + 2941, which are visible in Figure S7.4.

S7.2.2.3 May 6, 1920, Lease (Not on File)

Not on file at Argonne is a Co-op lease dated May 6, 1920, that is cited in the June 5, 1934, lease (Section S7.2.2.5). The 1920 lease concerns a coal bin and elevator, apparently those shown in Figure S7.4 (and also without labels in Figure S7.5).

S7.2.2.4 June 1, 1921, Lease (No Figure)

The 1921 lease document transfers property held by the Fullington Lumber Company to the Navarre Co-op. No lease figure accompanies Argonne's copy of this lease.

S7.2.2.5 June 5, 1934, Lease (Figure S7.5)

The 1934 lease between the ATSF and the Navarre Co-op assigns property to be used for an elevator, coal bins, bulk oil station, and other buildings. The accompanying lease figure (Figure S7.5) shows the property to be 27,476 ft^2, centered on mile marker MP44 + 2941 ft and extending to the former northern stockyard.

S7.2.2.6 April 13, 1949, Lease (Figure S7.6)

The 1949 lease between ATSF and the Navarre Co-op increases the Co-op-controlled property to 48,276 ft^2. Noticeable on the accompanying figure (Figure S7.6) is the assignment of the former northern stockyard as the location of a new concrete elevator near mile marker MP44 + 2680 ft.

S7.2.2.7 October 8, 1952, Lease (Figure S7.7)

The 1952 lease with accompanying figure (Figure S7.7) appears to decrease the Co-op-controlled property to 35,166 ft^2, eliminating property east of the railroad.

S7.2.2.8 August 4, 1958, Lease (Figure S7.8)

The 1958 lease states (on the cover page) that the leased property is to be used for an elevator, coal bins, bulk oil station, a "warehouse," and other buildings. The addition of "warehouse" to the earlier descriptions for property use refers to the construction of the flat storage building. A figure accompanying the lease (Figure S7.8) shows the flat storage building between mile markers MP44 + 2618 ft and MP44 + 2497 ft. The 1958 Co-op lease is overlaid on the 2002 aerial photograph in Figure S7.1, along with the 1954 CCC/USDA lease.

S7.2.2.9 January 22, 1962, Lease (No Figure)

The 1962 lease is for the addition of the tunnel, conveyor, and overhead walk at the location of the elevators and silos in the northern portion of the Co-op property. Diagrams with the lease show the construction details of the new additions.

S7.2.2.10 August 5, 1966, Lease (Figure S7.9)

The 1966 lease itself is not on file at Argonne. The date of the lease is known from the 1969 lease (Section S7.2.2.11), which states as item #23 that Contract No. 123081 is terminated. The 1969 lease extends the boundary of the property leased in 1966. The property leased in 1966 under contract No. 123081 is identified in a figure on file (Figure S7.9) as the parcel north of the former CCC/USDA facility location, between it and the former stockyard (approximately an inch above the bottom of the image).

S7.2.2.11 November 21, 1969, Lease (Figure S7.10)

The 1969 lease concerns additional land south of the flat storage building (in the northern portion of the former CCC/USDA grain storage facility), to be used for the construction of the dry fertilizer storage building. The use of the leased parcel is identified as handling liquid and bulk fertilizer, plus storing of fertilizer equipment and a portable loader. The accompanying lease figure (Figure S7.10) shows the position of the property between mile markers MP44 + 2405 ft and MP44 + 2165 ft. The former CCC/USDA facility was located between mile markers MP44 + 2365 ft and MP44 + 1981 ft. Therefore, this new parcel is approximately the northern half of the

former CCC/USDA facility, plus property extending northward almost to the former stockyard shown in the CCC/USDA lease (Figure S7.3).

S7.2.2.12 December 10, 1971, Lease (No Figure)

The 1971 lease is for the construction of an additional rail line to "serve a grain, coal and bulk oil handling facility."

S7.2.2.13 April 25, 1975, Lease (Figure S7.11)

The 1975 lease between ATSF and the Co-op expands the property under Co-op control to 194,663 ft^2. The figure accompanying the lease (Figure S7.11a,b) shows the Co-op property extending 216 ft south of the former CCC/USDA grain storage facility, to mile marker MP44 + 1765 ft. (The former CCC/USDA facility extended south to MP44 + 1981 ft; Figure S7.3.)

S7.2.2.14 January 30, 1976, Lease (No Figure)

The 1976 lease between ATSF and Farmland Industries and the Co-op allowed the installation of the 30,000-gallon anhydrous ammonia storage tank north of the dry fertilizer building. (Bulk liquid fertilizer storage was subsequently moved to the south of the flat storage building, within the concrete-bermed area.)

S7.3 Survey Data

At the conclusion of the CCC/USDA–Argonne 2006 targeted investigation, the sampling locations and selected building corners were surveyed to fix their locations accurately. Northing and easting positions were determined for each point (Figure S7.12a,b). The comparison below of the northing coordinates shows the relative positions of some points of interest.

Location	Northing (ft)
Flat Storage Building (SW corner)	169831.7
Concrete Berm (NW corner)	169810.4
Concrete Berm (SE corner)	169782.7
Dry Fertilizer Building (NE corner)	169682.0

S7.4 Summary

Consideration of all of the levels of property documentation described here indicates that the north edge of the present dry fertilizer building marks the northern extent of the former CCC/USDA property at Navarre (Figure S7.1).

S7.5 Sources of Photographs

NAIP, 2002, aerial photograph of Navarre, Kansas, National Agricultural Imagery Program, U.S. Department of Agriculture, http://www.apfo.usda.gov/NAIP.html.

USDA, 1957, aerial photograph AYH-2T-127, U.S. Department of Agriculture, July 13.

USDA, 1965, aerial photograph AYH-4FF-101, U.S. Department of Agriculture, August 12.

USDA, 1971, aerial photograph AYH-3MM-147, U.S. Department of Agriculture, June 28.

USDA, 1976, aerial photograph 20041 176 11L, U.S. Department of Agriculture, October 31.

USDA, 1980, aerial photograph 20041 180 71A, U.S. Department of Agriculture, June 14.

USDA, 1981, aerial photograph HAP81 171 183L, U.S. Department of Agriculture, September 27.

USDA, 1985, aerial photograph NHAP2 21 46L, U.S. Department of Agriculture, May 25.

USGS, 1991, aerial photograph of Navarre, Kansas, U.S. Geological Survey, October 1.

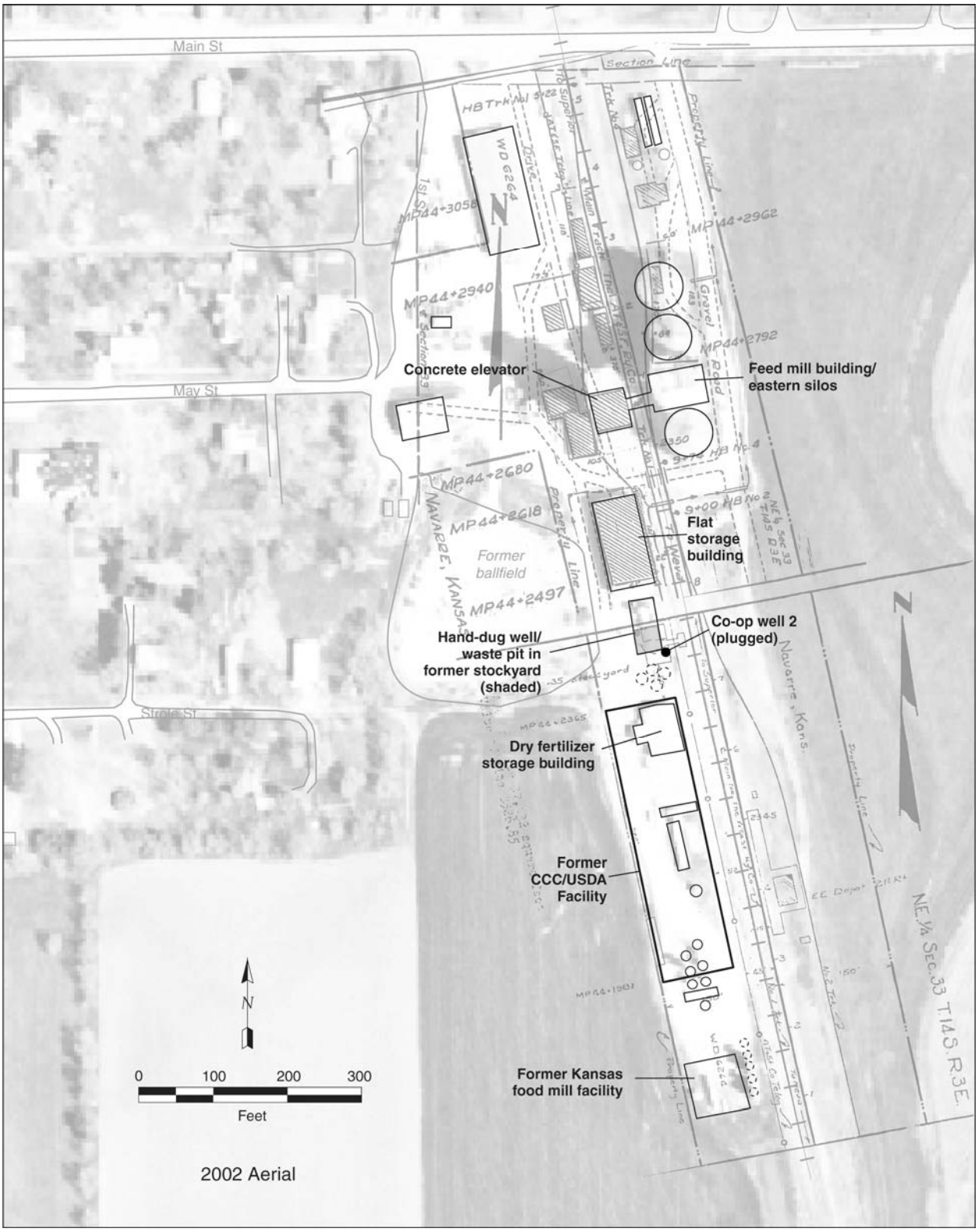


FIGURE S7.1 2002 aerial photo of Navarre overlain with historic lease data (1958, green; 1954, purple). Source of photograph: NAIP (2002).

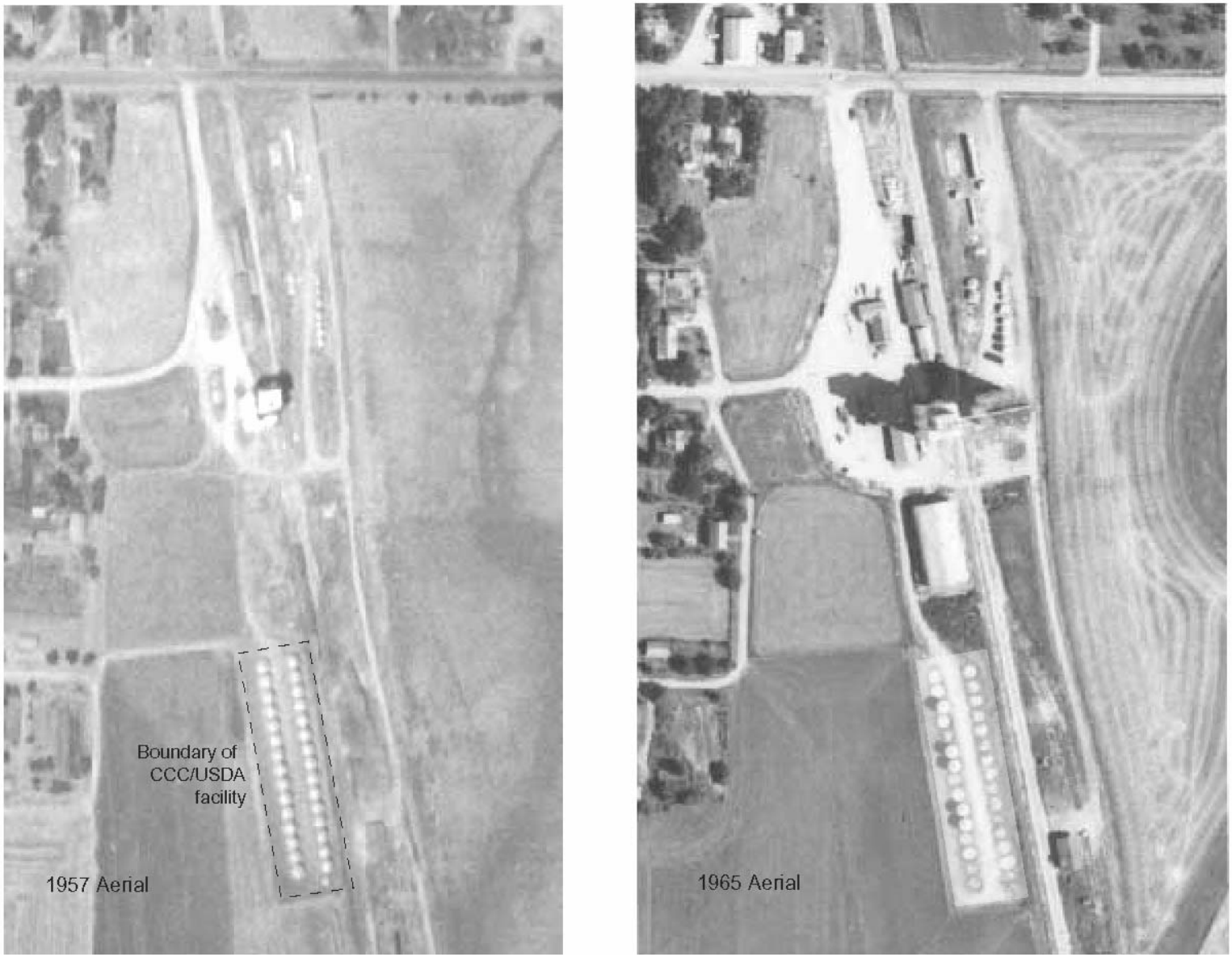


FIGURE S7.2a Navarre, 1957 and 1965. Sources of photographs: USDA (1957, 1965).

FIGURE S7.2b Navarre, 1971 and 1976. Sources of photographs: USDA (1971, 1976).

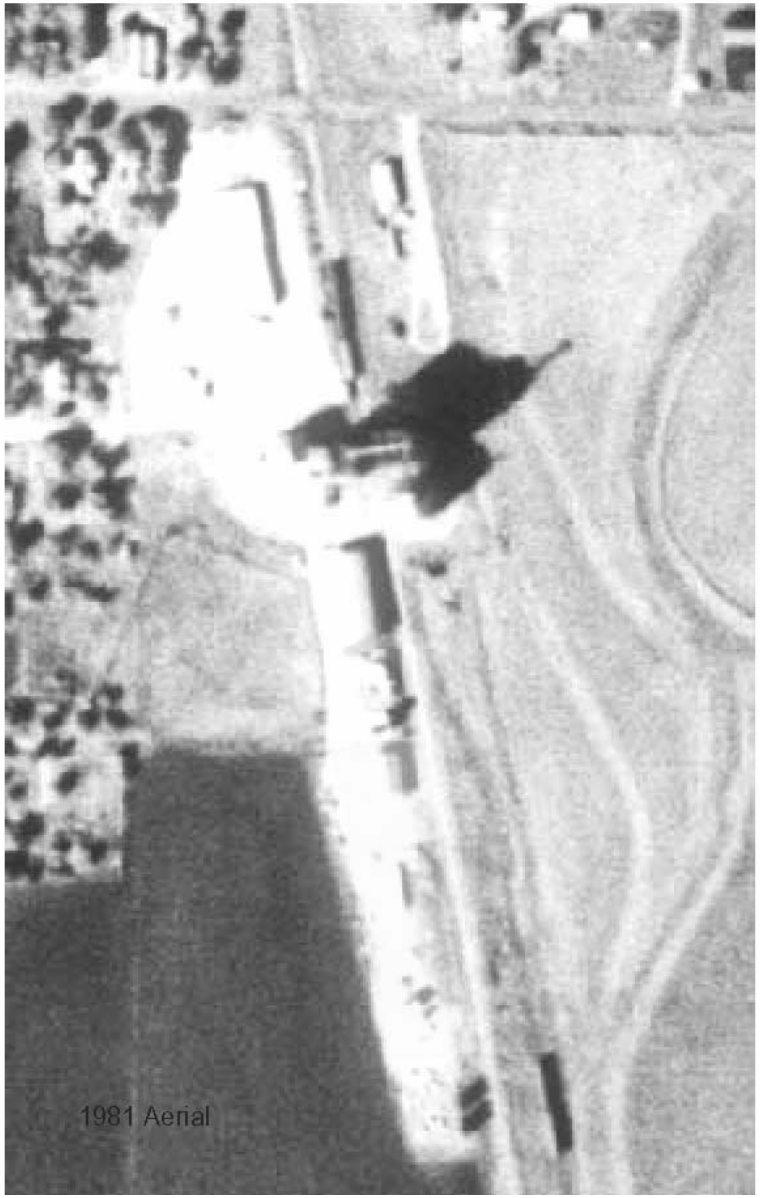


FIGURE S7.2c Navarre, 1980 and 1981. Sources of photographs: USDA (1980, 1981).

FIGURE S7.2d Navarre, 1985 and 1991. Sources of photographs: USDA (1985) and USGS (1991).

FIGURE S7.2e Investigation area at Navarre, 2002. Source of photograph: NAIP (2002).

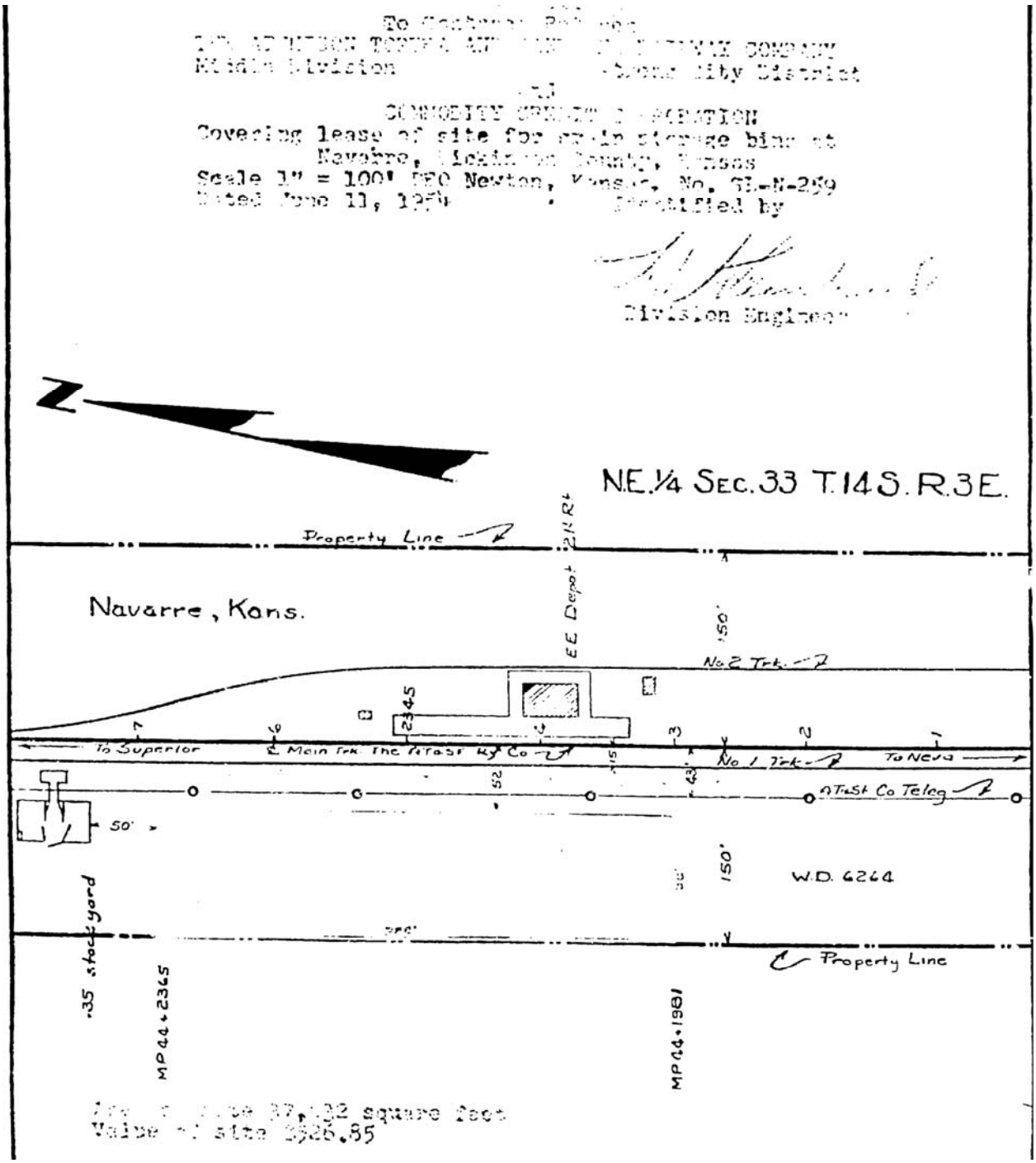


FIGURE S7.3 1954 CCC/USDA lease illustration.

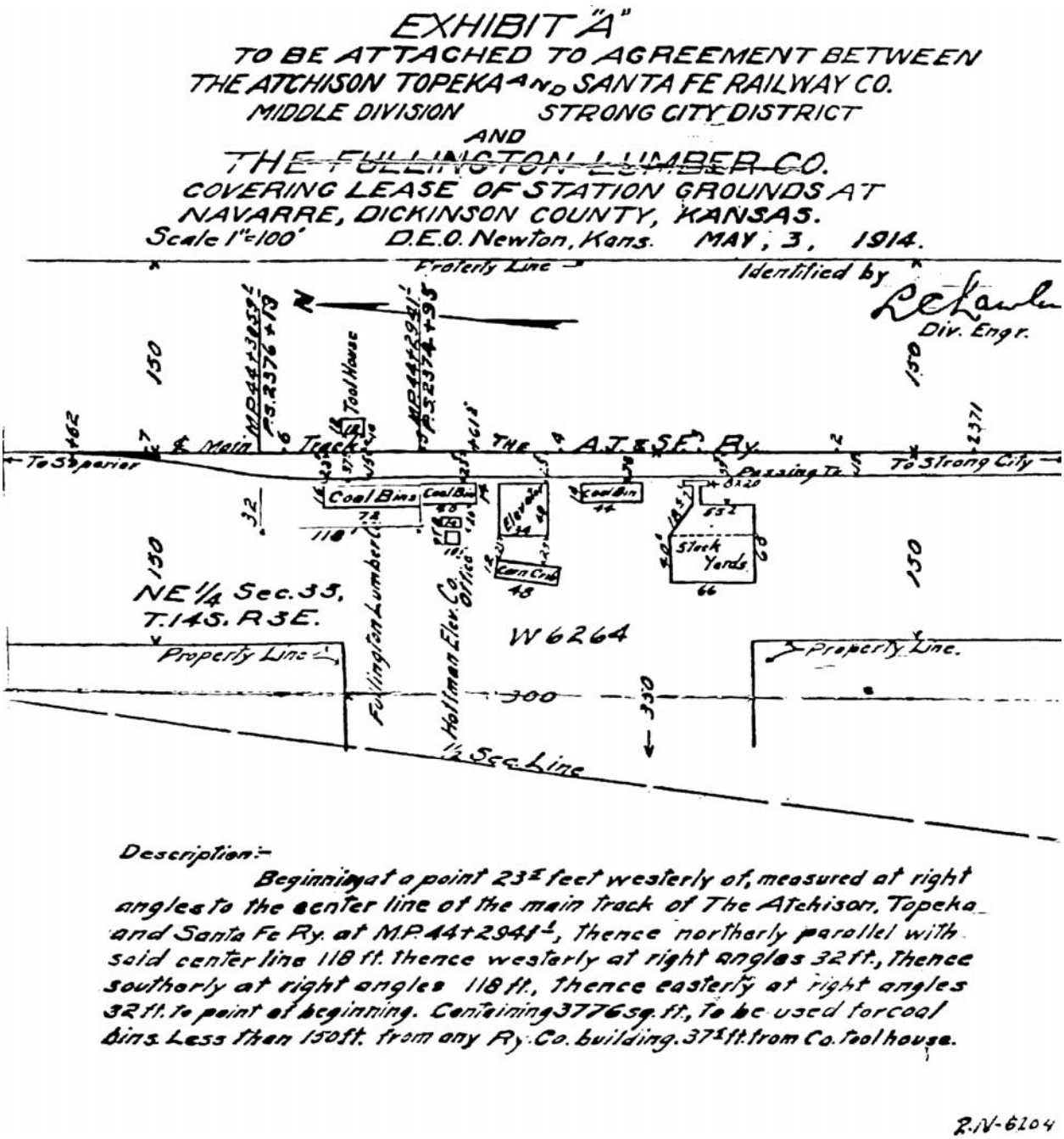


FIGURE S7.4 1916 Co-op lease illustration.

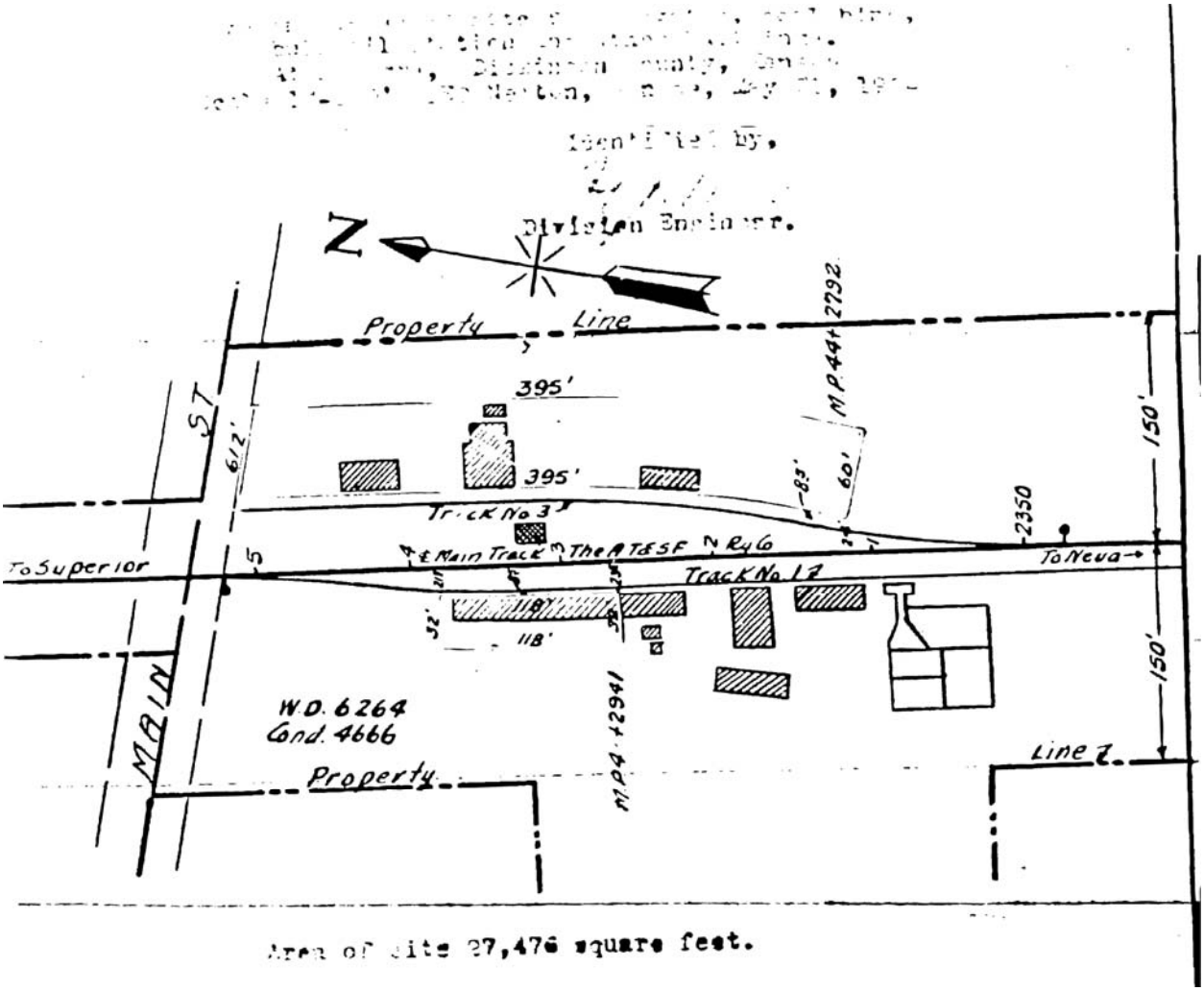


FIGURE S7.5 1934 Co-op lease illustration.

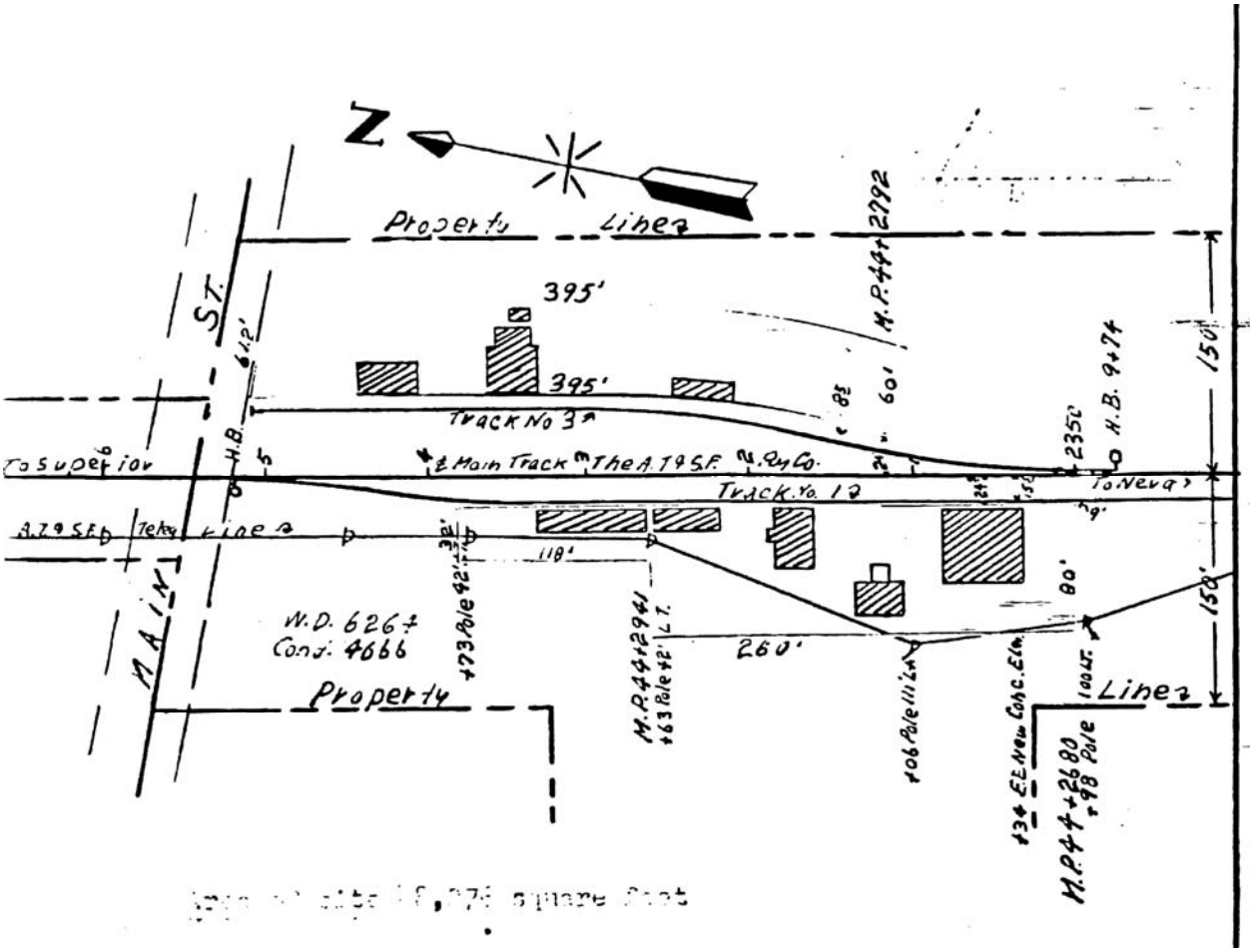


FIGURE S7.6 1949 Co-op lease illustration.

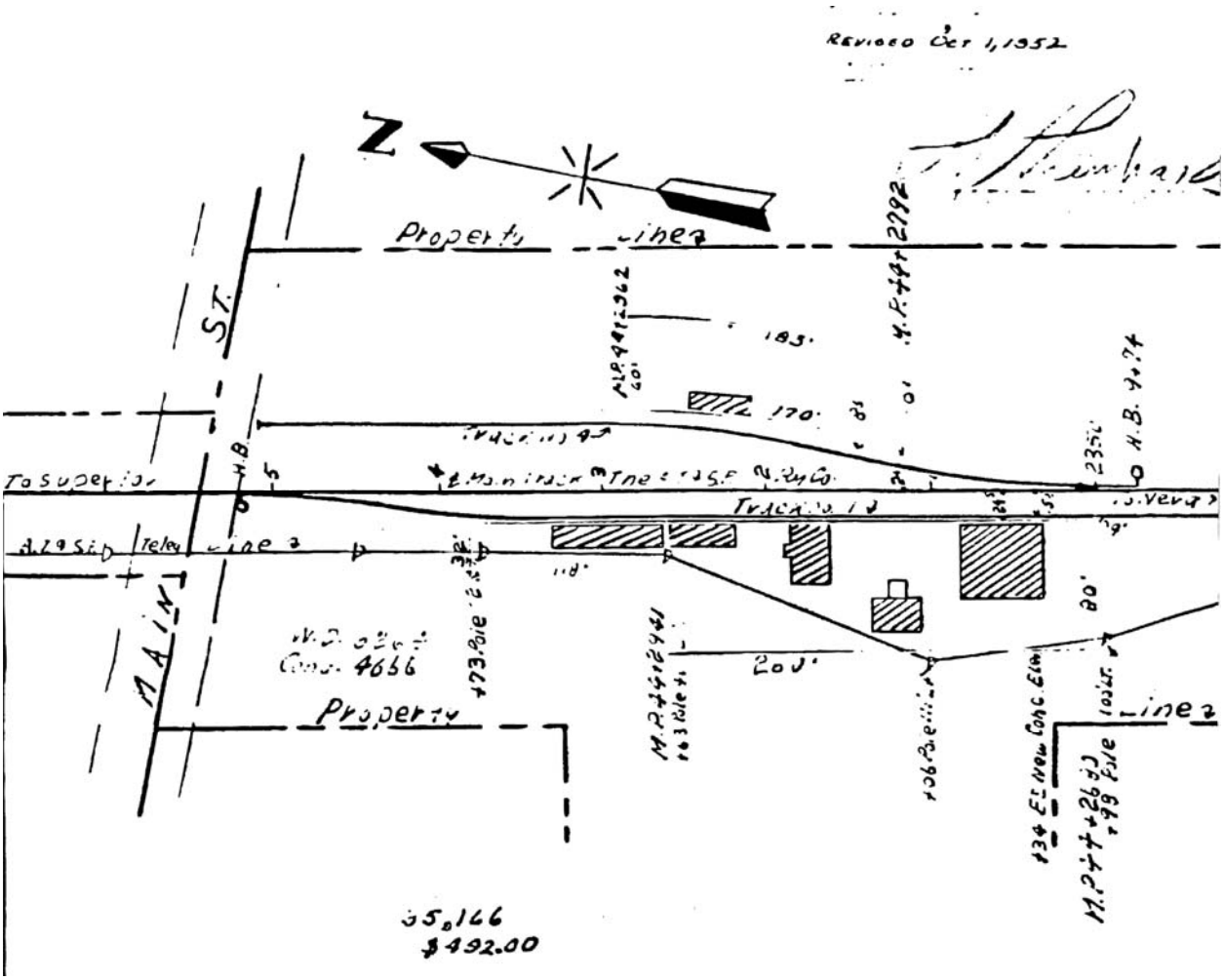


FIGURE S7.7 1952 Co-op lease illustration.

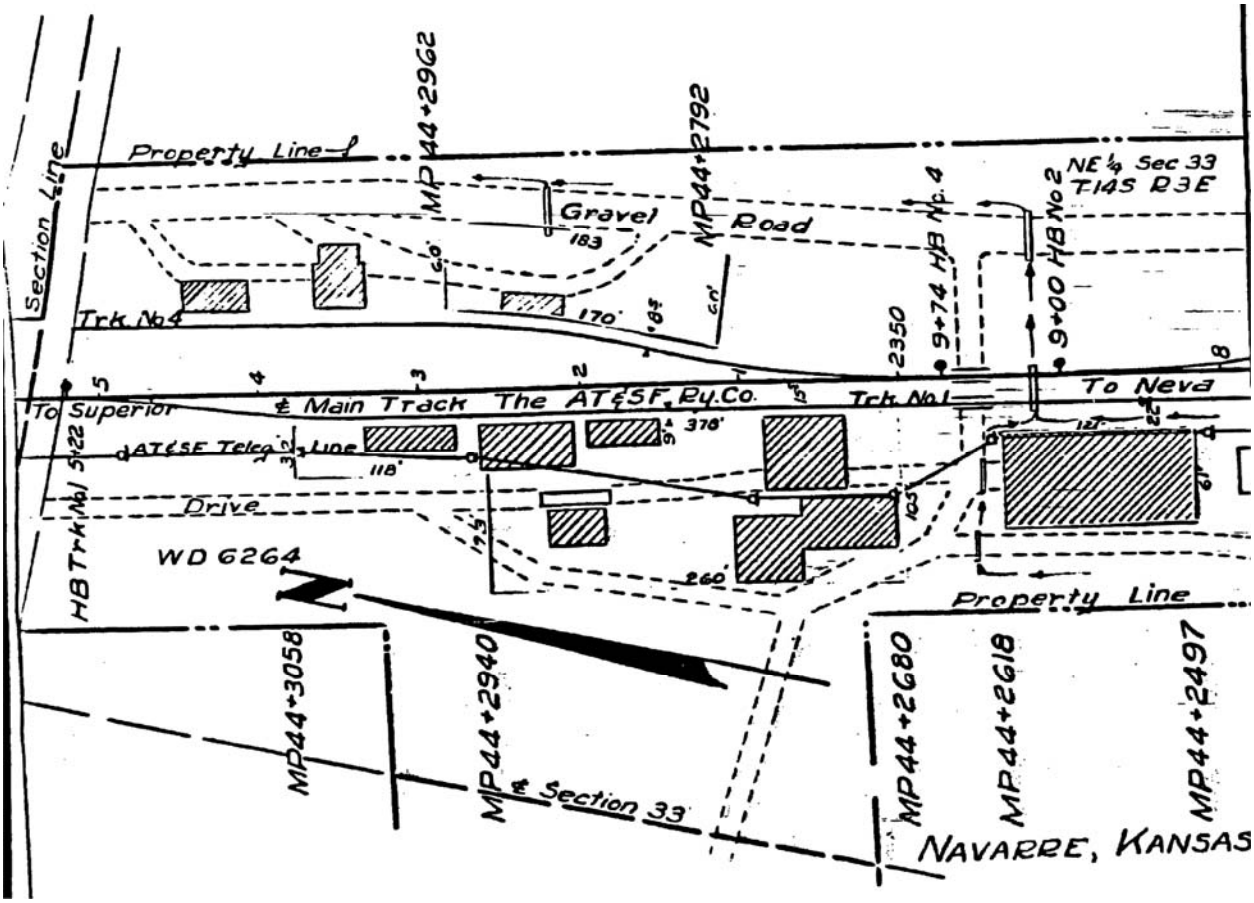


FIGURE S7.8 1958 Co-op lease illustration.

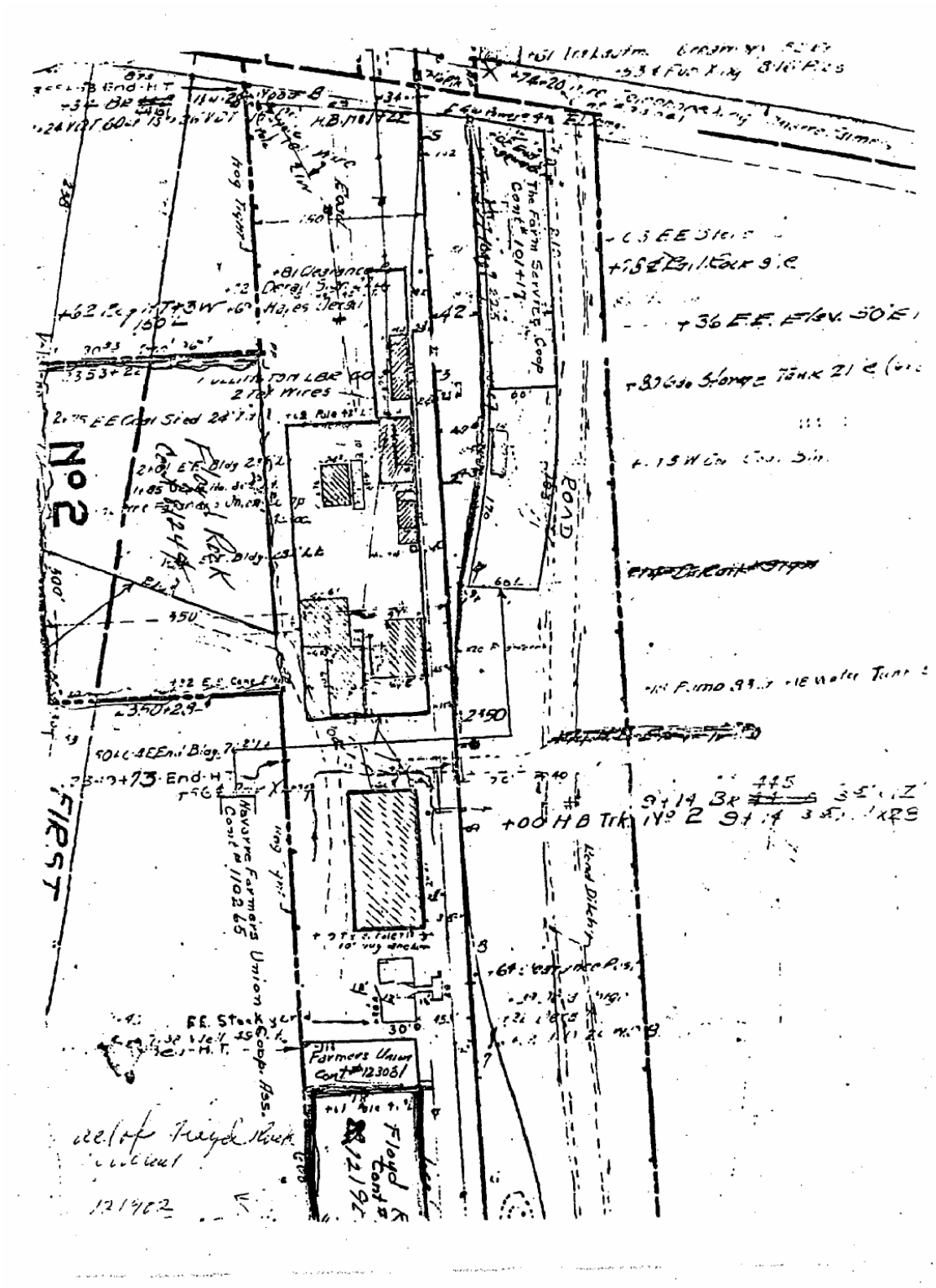


FIGURE S7.9 1966 Co-op lease illustration.

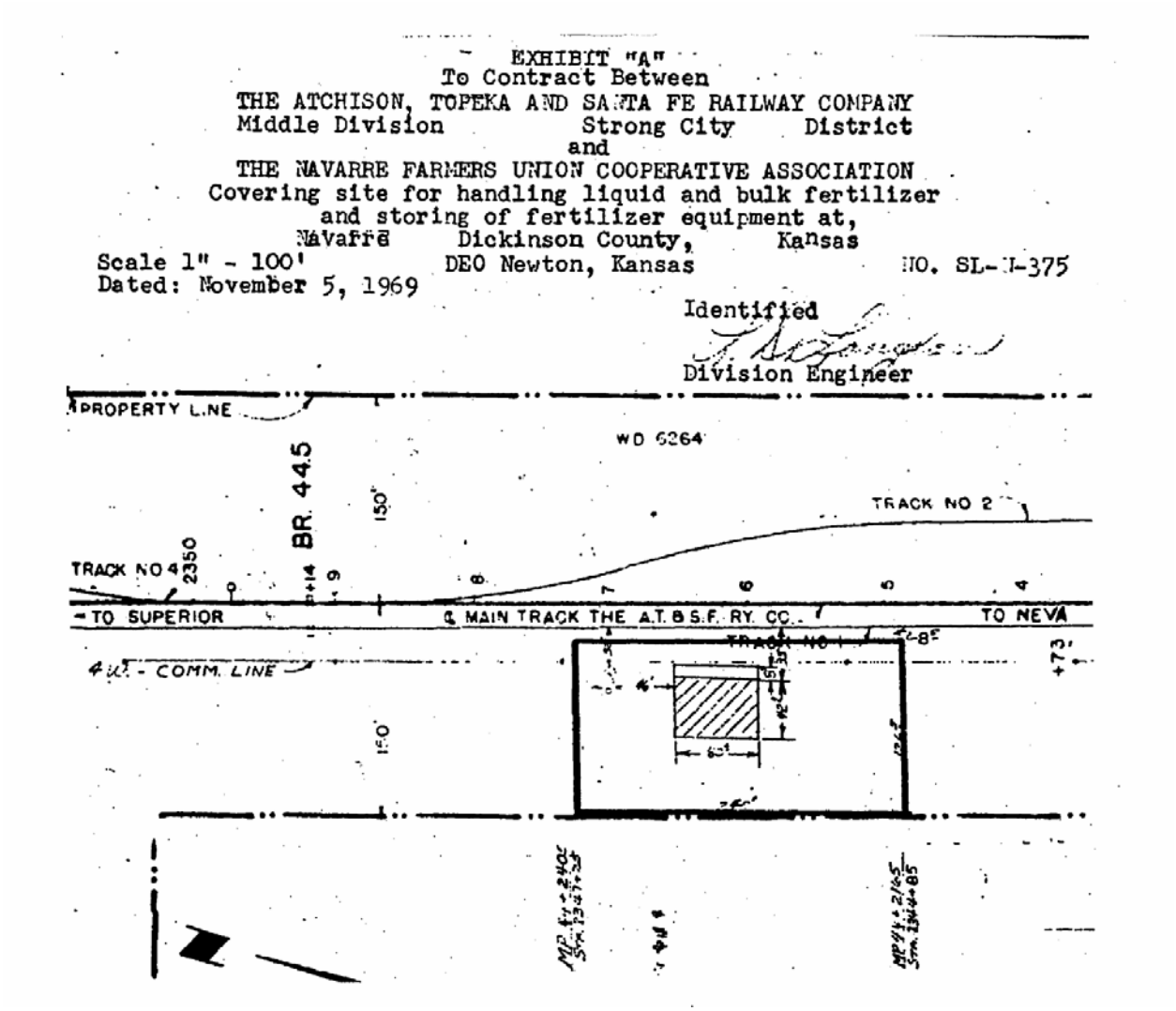


FIGURE S7.10 1969 Co-op lease illustration.

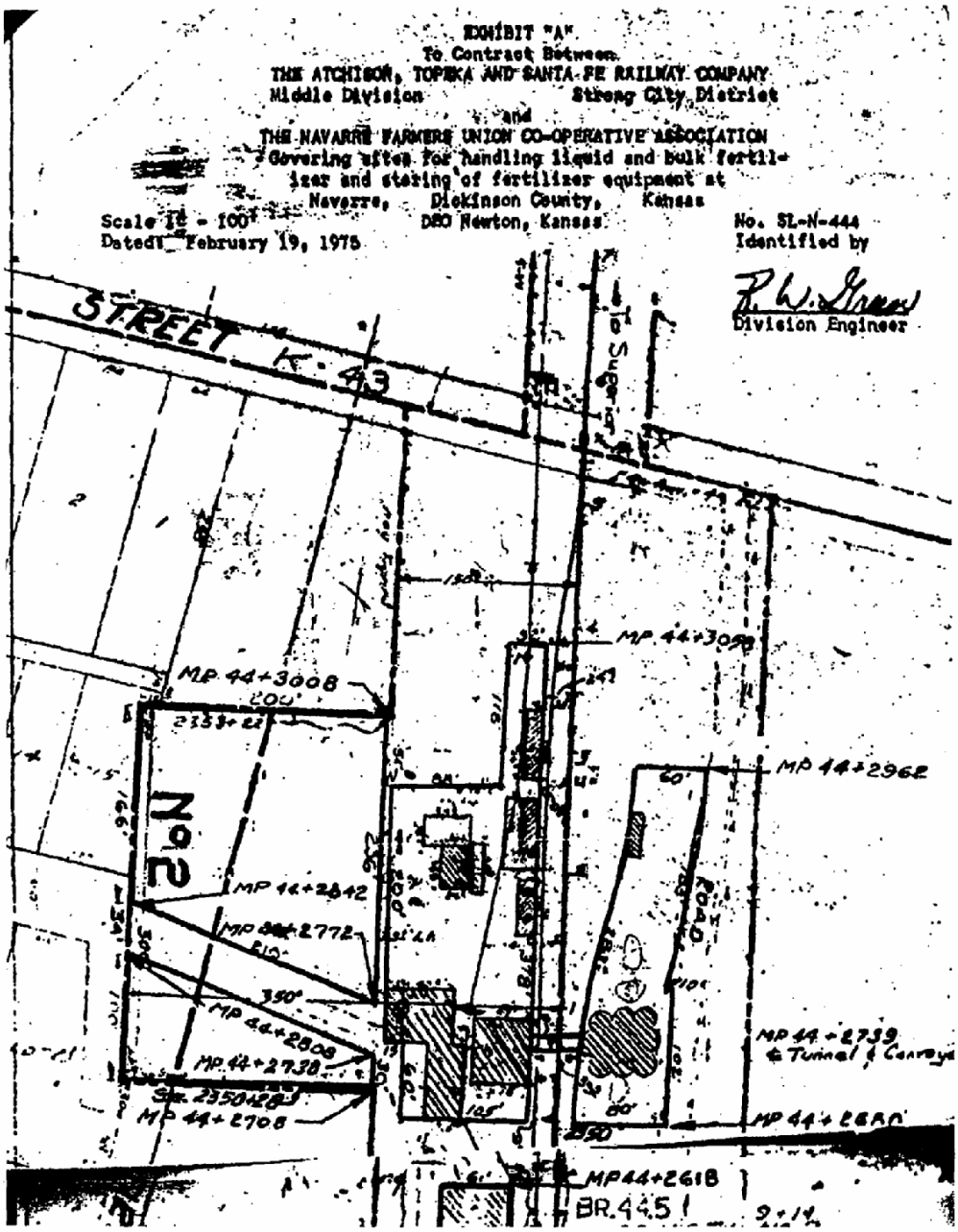


FIGURE S7.11a 1975 Co-op lease illustration (top).

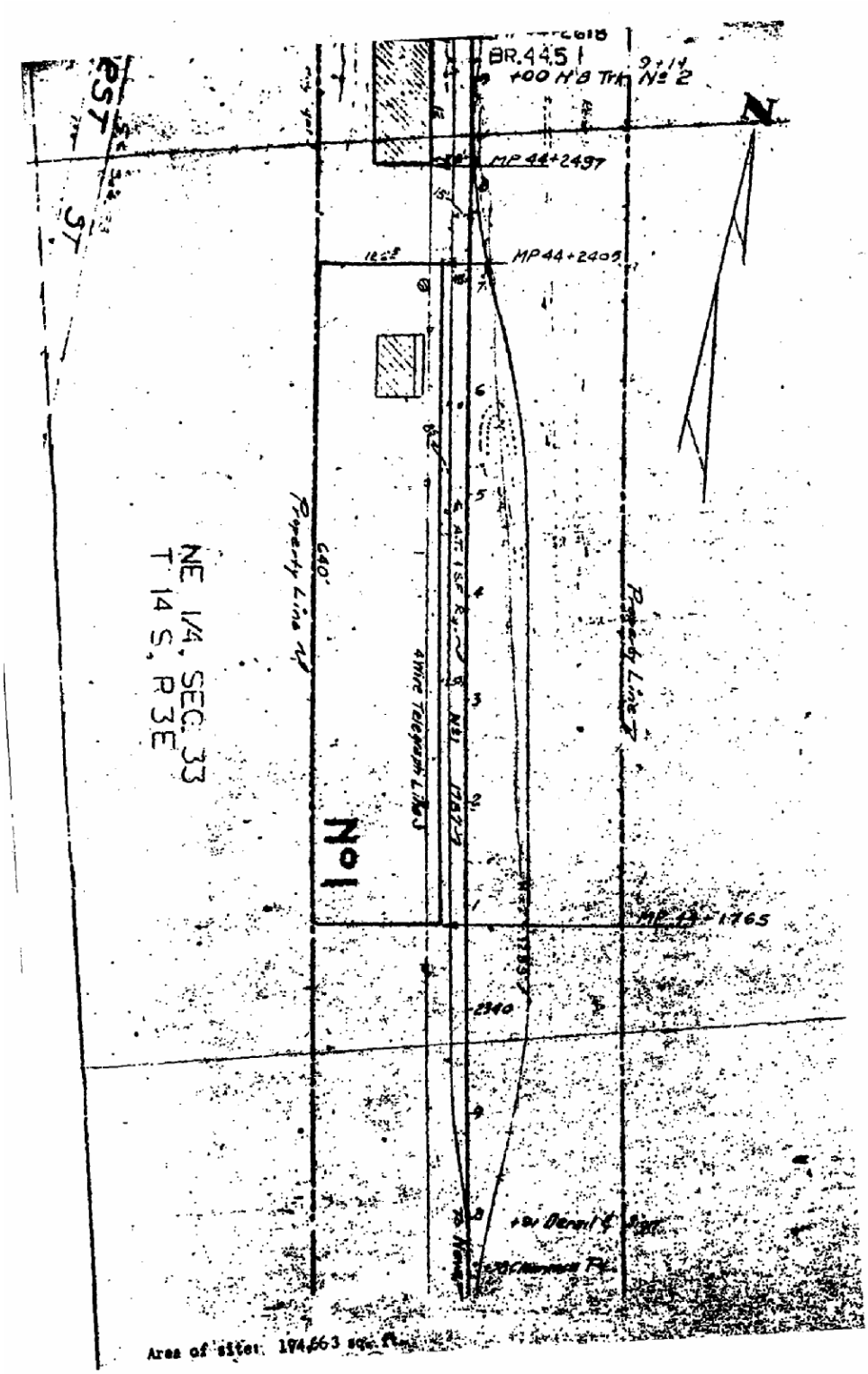


FIGURE S7.11b 1975 Co-op lease illustration (bottom).

FIGURE S7.12a Coordinates survey locations at Navarre, 2006 and earlier.

POINT	NORTH	EAST	ELEVATION	DESCRIPTION
1	232955.482	1573378.100	1223.74	SMOKY
2	230446.105	1575646.109	1210.21	STATION CHECK
3	197216.254	1567080.425	1248.33	101
5	170077.270	1567436.047	1351.09	MAG NAIL
6	170099.532	1567997.486	1351.73	BAR SET
7	169228.424	1568301.808	1351.90	BAR SET
8	169509.233	1568228.333	1352.21	BAR SET
9	169977.756	1568357.387	1349.76	101
10	169810.261	1568399.934	1351.91	101
11	169687.916	1568137.482	1352.58	101
50	169299.401	1568284.386	1352.07	TI-11
51	169295.189	1568382.529	1351.87	TI-12
52	169375.023	1568321.065	1353.21	TI-10
53	169427.001	1568254.976	1351.55	TI-9
54	169498.115	1568280.322	1352.73	TI-6
55	169448.449	1568348.940	1351.21	TI-8
56	169534.213	1568221.318	1351.96	TI-5
57	169609.492	1568244.016	1352.92	TI-3
58	169612.025	1568320.129	1351.14	TI-7
59	169693.739	1568294.251	1351.64	TI-2
60	169680.825	1568253.983	1352.62	TI-1
61	169656.098	1568189.406	1351.63	TI-4
62	169748.891	1568251.468	1353.02	TI-18
63	169778.675	1568219.992	1352.68	TI-14
64	169785.756	1568194.611	1352.29	CONTROL PT 1
65	169834.283	1568205.747	1351.73	TI-13
66	169792.658	1568294.183	1348.85	TI-28
67	169734.532	1568303.312	1349.53	TI-29
68	169666.384	1568401.793	1350.43	TI-27
69	169965.491	1568188.481	1351.48	TI-15
70	169984.611	1568237.475	1351.54	TI-17
71	170051.693	1568144.665	1352.67	TI-26
72	170081.286	1568083.370	1352.64	TI-24
73	170135.159	1568200.213	1352.16	TI-21
74	170147.822	1568127.860	1352.37	TI-25
75	169796.837	1568006.400	1352.68	TI-22
76	169793.896	1567799.797	1353.68	TI-31
77	169583.697	1567941.394	1353.77	TI-30
78	169570.588	1567942.246	1353.65	1 IN. PIEZOMETER
79	169682.042	1568294.320	1352.02	NE COR BLDG
80	169782.763	1568285.590	1354.07	SE COR CONC
81	169961.942	1568249.252	1351.65	NE COR BLDG
82	170033.385	1568235.733	1351.79	TI-23
83	170132.606	1568355.171	1349.12	TI-19
84	169614.770	1568264.631	1352.98	SW COR BLDG
85	169810.451	1568243.282	1354.10	NW COR CONC
86	169826.265	1568248.293	1352.19	TI-16
87	169831.725	1568214.414	1351.71	SW COR BLDG
88	169682.829	1567907.391	1353.45	TI-20

FIGURE S7.12b Coordinates survey data for Navarre locations, May 2006.

TABLE S7.1 Timeline related to property records for the location of the former CCC/USDA grain storage facility at Navarre, Kansas.

Document Date	Title	No. of Pages	Contract No.	Document Description	Relevance to Property Boundaries
2/7/2000	Transmittal letter	11	–	Transmittal of Navarre property documents to Argonne (J. Burton) from CCC/USDA (G. Fremerman).	
5/1/1916	Right-of-way lease between Atchison, Topeka, and Santa Fe Railroad (ATSF) and Fullington Lumber Co.	4	36189	Lease of 3776 ft^2 to Fullington Lumber Co. to be used for coal bins. Leased property is located between mile markers MP44 + 3059 ft and MP44 + 2941 ft.	Future Co-op property in the vicinity of the current elevator. Lease figure shows locations of coal bins, elevator, corn crib, and stockyard west of tracks, plus toolshed east of tracks. The old wooden elevator described no longer exists; it was north of current elevator location.
7/6/1916	Assignment by Fullington Lumber Co. to Navarre Co-op	0	36189	This lease assignment document is not on file at Argonne, but the lease, its date, and the contract number are referenced in the 6/1/1921 lease.	Property assigned to the Fullington Lumber Co. under contract 36189 is transferred by Fullington to the Navarre Co-op. Leased property is located between mile markers MP44 + 3059 ft and MP44 + 2941 ft.
4/18/1919	Articles of incorporation	5	–	Charter for the Navarre Farmers Union Cooperative Association.	Establishes incorporation date of Co-op.
5/6/1920	Lease between ATSF and Navarre Co-op	0	43928	This lease is not on file at Argonne. Lease date and contract number are identified in the 6/5/1934 lease. Property is leased by ATSF to the Co-op as a site for a coal bin and elevator under contract 43928.	Establishes the date of grain storage operations by the Navarre Co-op as May 1920.
6/1/1921	Lease from Fullington Lumber Co. to Navarre Co-op	3	36189	Lease held by Lumber Co. under contract 36189 (dated 7/6/1916), for a coal bin location, is transferred *in whole* to the Co-op.	Initial lease on file at Argonne specifically citing the Navarre Farmers Union Cooperative Association.
6/5/1934	Right-of-way lease between ATSF and Navarre Co-op	5	74624	Expansion of Co-op east of tracks. Contracts 36189 (dated 7/16/1916 *[sic]*) and 43928 (dated 5/6/1920) are terminated, combining both parcels under contract 74624.	Co-op controls 27,476 ft^2 of the ATSF right-of-way. Figure shows the current (as of 1934) extent of the Co-op property, centered on mile marker MP44 + 2941 ft.

TABLE S7.1 (Cont.)

Document Date	Title	No. of Pages	Contract No.	Document Description	Relevance to Property Boundaries
3/27/1940	First National Bank	1	–	Resolution passed by Farmers Union Cooperative establishing the Navarre Elevator as the registered office of the corporation and D.S. Strole as the registered agent.	Corporate office of the Co-op moved to Navarre, Kansas.
4/13/1949	Lease from ATSF to Navarre Co-op	3	95727	Argonne's copy is incomplete, missing page 2 and signature page. Lease of additional right-of-way for elevator, coal bins, bulk oil station, and other buildings. (Under this lease the Co-op will construct a new concrete elevator.)	Lease figure shows Co-op expanding southward, taking over the former northern stockyard area, identified in the figure as a new concrete elevator. Co-op controls 48,276 ft^2. Southern extent of Co-op property is at mile marker MP44 + 2680 ft.
10/8/1952	Lease from ATSF to Navarre Co-op	5	101411	After construction of concrete elevator, Co-op vacates land east of the tracks and to the north by terminating contract 74624 (dated 6/5/1934).	Co-op controls 35,166 ft^2. Southern extent of Co-op property is still at mile marker MP44 + 2680 ft.
6/21/1954	**Lease from ATSF to Commodity Credit Corporation**	5	104166	CCC/USDA leases property from railroad under contract 104166 (identified in the lease termination agreement dated 2/2/1966). CCC/USDA controls 37,632 ft^2 (98 ft x 384 ft). Mile marker locations MP44 + 2365 ft and MP44 + 1981 ft determine the position and the 384-ft length of the property.	Lease figure shows the area leased by the CCC/USDA. Fifty feet north of the CCC/USDA area is a former railroad stockyard. East of the CCC/USDA leasehold are railroad track 1 (the passing track), the main track, the former depot, and track 2. The stockyard is believed to be the location of the former hand-dug well.
Unknown	Lease from ATSF to Navarre Co-op	2	110265	The first page is missing from Argonne's copy. Contract 101411 (dated 10/8/1952) is terminated. Contract number is identified in figure associated with 8/5/1966 lease.	Co-op resumes control of the area east of the railroad tracks.
8/4/1958	Lease from ATSF to Navarre Co-op	5	–	The description of the property leased by the Co-op is changed to include a warehouse (i.e., the flat storage building), which was not present in the 1957 aerial photo but is in the 1965 photo. Contract 95727 (dated 4/13/1949) is terminated.	Co-op property extends southward, toward the former CCC/USDA facility. The lease figure shows the southern extent of the flat storage building at mile marker MP44 + 2497 ft. The southern boundary of the parcel available for Co-op operations is not specified on the figure.

TABLE S7.1 (Cont.)

Document Date	Title	No. of Pages	Contract No.	Document Description	Relevance to Property Boundaries
10/19/1959	Certificate of amendment	2	–	Certificate of amendment to articles of incorporation, establishing amount of Co-op's capital stock at $100,000.	Registered office of Co-op is in Navarre, Kansas.
9/20/1960	Lease from ATSF to Navarre Co-op	0	113081	This lease is not on file at Argonne. Lease date and contract number are known from 1/22/1962 lease, which adds land for the tunnel conveyor and states that contract 113081 (dated 9/20/1960) is terminated.	The leased land specific to this contract is unknown; it could include the land between the flat storage building (first cited in the 8/4/1958 lease) and the parcel just north of the former CCC/USDA facility (identified under contract 123081 in the 8/5/1966 lease).
3/27/1961	Change of location of registered office	3	–	Resident agent of Co-op corporation is changed from D.S. Strole to Ralph Funston.	Registered office of Co-op remains in Navarre, Kansas.
4/12/1961	**Supplemental agreement between ATSF and CCC/USDA**	1	104166	Supplemental agreement between railroad and CCC/USDA to increase annual rental payment for property defined under contract 104166.	CCC/USDA property boundary is that cited in the 6/21/1954 lease.
1/22/1962	Lease from ATSF to Navarre Co-op	6	114732	Lease of land for tunnel conveyor and overhead walk is added by the Co-op. Contract 113081 (dated 9/20/1960) is terminated.	Area of Co-op site is stated as 60,503 ft^2.
2/18/1963	Change of resident agent	1	–	Resident agent for corporation is changed from Ralph Funston to Marvin Foos.	Registered office of Co-op remains in Navarre, Kansas.
1/22/1965	Change of resident agent	1	–	Resident agent for corporation is changed from Marvin Foos to Duane Rufenor.	Registered office of Co-op remains in Navarre, Kansas.
8/16/1965	Amendment to articles of incorporation	1	–	Defines the nature and character of business for which the Navarre Farmers Union Cooperative Association was organized and limits the number of corporate directors.	Registered office of Co-op remains in Navarre, Kansas.
2/2/1966	**Mutual termination agreement between ATSF and CCC/USDA**	1	104166	The 6/21/1954 lease between ATSF and the CCC/USDA for the property defined under contract 104166 is terminated as of 1/17/1966.	CCC/USDA property boundary is that cited in the 6/21/1954 lease.

TABLE S7.1 (Cont.)

Document Date	Title	No. of Pages	Contract No.	Document Description	Relevance to Property Boundaries
8/5/1966	Lease between ATSF and Navarre Co-op	1	123081	This lease is not on file at Argonne, but a figure showing the location of the land specified under contract 123081 is on file. Lease date and contract 128081 are cited in the 11/21/1969 lease.	Co-op moves farther south, onto land just north of the former CCC/USDA facility and south of the stockyard.
2/24/1969	Certificate of reinstatement, restoration, or renewal	2	–	The Navarre Farmers Union Cooperative Association, organized on 4/18/1919 for a period of 50 years, until 4/18/1969, is extended for a period of 50 years.	Registered office of Co-op remains in Navarre, Kansas.
11/21/1969	Lease between ATSF and Navarre Co-op	5	133460	Co-op leases additional land for handling of liquid and bulk fertilizer and for storing fertilizer equipment and a portable loader. Area covered includes the portion under contract 123081 (just north of former CCC/USDA facility) and additional area extending south into the former CCC/USDA facility, for a total area of 30,360 ft^2. Contract 123081 (dated 8/5/1966) is terminated.	The lease figure indicates that at this point the Co-op controls about half of the former CCC/USDA facility (its northern portion). The lease figure shows the southern extent of the Co-op property at mile marker MP44 + 2165 ft. (The former CCC/USDA facility was located between mile markers MP44 + 2365 ft and MP44 + 1981 ft.)
12/10/1971	Contract for industry track	5		Contract between Co-op and railroad for construction of northern track by the railroad.	–
1/14/1974	ATSF letter to Co-op	4	–	Letter from railroad to Co-op regarding request by Co-op to take over northern land presently controlled by Floyd Rock for construction of a new office and scale.	–
1/9/1975	Certificate of amendment	2	–	Amendment to Co-op articles of incorporation establishing the amount of capital stock of the corporation at $500,000.	Registered office of Co-op remains in Navarre, Kansas.

TABLE S7.1 (Cont.)

Document Date	Title	No. of Pages	Contract No.	Document Description	Relevance to Property Boundaries
4/25/1975	Lease from ATSF to Navarre Co-op	7	147780	Expansion of Co-op to 194,663 ft^2, terminating two previous contracts and combining them into one lease. Contracts 114732 (dated 1/22/1962) and 133460 (dated 11/21/1969) are terminated. At this point the Co-op controls all of the former CCC/USDA property.	Co-op property expands south of the former CCC/USDA grain storage facility. Southern extent of Co-op property is shown on lease figure as mile marker MP44 + 1765 ft. (The former CCC/USDA facility was located between mile markers MP44 + 2365 ft and MP44 + 1981 ft.)
1/30/1976	Agreement	2	–	Farmland Industries subleases land from Co-op to install a 30,000-gal fertilizer tank. No figure is on file with the lease at Argonne.	Installation of bulk liquid fertilizer storage tank just north of the dry fertilizer storage building.
3/14/1978	Supplemental agreement	3	147780	Supplemental agreement to increase annual payment for property leased under contract 147780 (dated 4/25/1975).	Co-op continues at 194,663 ft^2 specified under 4/25/1975 lease.
4/9/1981	Supplemental agreement	3	147780	Supplemental agreement to increase annual payment for property leased under contract 147780 (dated 4/25/1975).	Co-op continues at 194,663 ft^2 specified under 4/25/1975 lease.
10/31/1991	Corporate annual report	3	–	Corporate annual report for Navarre Farmers Union Cooperative Association, listing liabilities and assets as of tax closing date 10/31/1991.	Registered office of Co-op remains in Navarre, Kansas.
3/18/1992	Title search certificate	6	–	Statement of record for a title search by the Dickinson County Title Company.	Title search record includes the 6/21/1954 lease between the ATSF and the CCC/USDA as an attachment, noting that the lease was recorded in the Dickinson County Register of Deeds Office, Record Book 172, page 416.

Copies of Property Documents on File at Argonne

United States Department of Agriculture
Office of the General Counsel
Washington, D.C. 20250-1400

Copied
CK
CD
JH

February 7, 2000

VIA OVERNIGHT MAIL

Jacqueline C. Burton, Ph.D.
Argonne National Laboratory
9700 South Cass Avenue
Building 203, Room B121
Argonne, Illinois 60439

PRIVILEGED & CONFIDENTIAL;
ATTORNEY WORK PRODUCT

Re: Navarre, KS Lawsuit

Dear Jackie:

Following up on our recent discussion, please find enclosed various lease agreements between the Navarre Coop and the Atchison, Topeka and Santa Fe Railway Company at the Navarre, KS site (and some other related materials) that we just received from EPA. Hopefully, these lease agreements will help us "nail down" the Coop's responsibility for the carbon tetrachloride contamination at the site.

Please let me know how these lease documents affect your analysis of this matter at your earliest convenience.

Sincerely,

Gary Fremerman

Gary M. Fremerman

GMF:
Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

February 2, 2000

Gary Fremerman, Attorney
U.S. Department of Agriculture
Office of General Counsel, Pollution Control Team
4624 South Building
1400 Independence Avenue, S.W.
Washington, D.C. 20250

Re: Documents from EPA Region VII file on the Navarre, Kansas groundwater contamination site

Dear Gary:

Enclosed is a copy of a 1992 investigative report for the Navarre, Kansas groundwater site, with some attached agreements between the Santa Fe Railway and the Navarre Co-op, as you requested.

If you have questions or need further information, please call me at (913) 551-7252.

Sincerely,

Jonathan Kahn
Assistant Regional Counsel

Enclosure

To: Jonathan Kahn

Date: 2-2-00

8254

Here are the documents you requested. Please see below for any comments regarding these documents.

Mary Calloway	7994
Melissa Cox	7443
Frances Gingles	7113
Marleyne Marsh	7134
Tricia Mobley	7427
Odessa Murphy	7095
Linda Norris	7827
Sharon Robertson	7634
Trebreh Samuels	7186
LaVerne Weber	7447
Melissa Yocum	7476
Monique Yocum	7504

2 copies

PRC Environmental Management, Inc.
650 Minnesota Avenue
Kansas City, KS 66101
913-281-2277
Fax 913-281-5383

PRC

Site: Navarre Co-op
ID #: KSD 984997189
Break 11.11
Other: 3-26-92

RECEIVED
MAR 31 1992
REML SECTION

March 26, 1992

Mr. Gene Gunn
U.S. EPA, Region 7
726 Minnesota Avenue
Kansas City, Kansas 66101

Re: EPA Contract No. 68-W9-0006
Work Assignment No. C07023-009
Investigative Report for Navarre, Kansas

Dear Mr. Caron:

PRC Environmental Management, Inc., is pleased to submit two copies of the investigative report for the Navarre, Kansas, groundwater site prepared by Clarence M. Kelley and Associates (Clarence Kelley). Mr. Dave Linder, the attorney representing the Navarre Co-op, did not allow Clarence Kelley to interview Mr. Rufener, the Co-op's manager, regarding the use of 80/20. He stated that he would respond to written questions from an attorney representing EPA. Clarence Kelley has advised EPA's attorney, Ms. Pat Miller, of this request.

If you have any questions or comments on this submittal, please do not hesitate to call me at (913) 281-2277.

Sincerely,

Martha A. Radke

Martha A. Radke
Project Manager

cc: Norman Caron, U.S. EPA-WAM
Pat Miller, U.S. EPA
Maureen Hunt, U.S. EPA-RPO
Kay Mesia, PRC EMI

G. GUNN

RECEIVED
MAR 31 1992
REML SECTION

Site: Navarre GW Cond
ID #: KSD984997189
Break: 1.5
Other:

RE: Navarre Groundwater Contamination Site

REPORT FOR:

Ms. Martha Radke
PRC Environmental Management, Inc.
650 Minnesota Avenue
Kansas City, Kansas 66101

REPORT BY:

Clarence M. Kelley & Associates
4041 Central Street
Kansas City, Missouri 64111

REPORT DATE:

March 20, 1992

CONFIDENTIAL

CMK #896-8

TABLE OF CONTENTS

PAGE

PREDICATION

This investigation predicated upon a request from the EPA to conduct a title search on the property along the east edge of the town at the current location of the Navarre CO-OP and south of that location in the area of the former USDA grain storage operation. Also conduct interviews of Duane Rufener and Orville W. Robson regarding their knowledge of the use of 80/20 grain fumigant at the elevator.

SYNOPSIS

David C. Linder, attorney for the Navarre Farmers Union Cooperative Association, declined to allow a verbal interview with Duane Rufener regarding the use of 80/20 and its application at Navarre. Linder said he will respond to a written request from an attorney representing EPA. Orville Robson said he never worked for Navarre CO-OP but did help apply 80/20 there as an employee of the local ASC office.

INTERVIEWS

Duane Rufener
Manager, Navarre CO-OP
Box 78, Hope, Kansas
Telephone: (913) 479-2221 (office)
(913_949-2427 (home)

On March 16, 1992, Mr. Duane Rufener was contacted at his place of employment as agreed per my telephone conversation with him on March 14, 1992. Present in Mr. Rufener's office was Mr. David C. Linder, Attorney at Law with the firm of Spencer, Fane, Britt and Browne, 1400 Commerce Bank Building, 1000 Walnut Street, Kansas City, Missouri 64106, telephone (816) 474-8100.

Mr. Rufener advised he has been manager here since 1962. He has located lease agreements for the property in question and has furnished them to Mr. Linder to photo copy for the investigator.

With regard to the questions provided to the investigator for answer by Rufener, Mr. Linder said that these questions should be submitted by the appropriate EPA attorney to him in writing. Linder declined to answer the questions in an interview type format.

With regard to rodent control around the elevator, Rufener said he has always used a professional exterminator whom he identifies as follows: Larry Rakowsky, ECO-LAB, Manhattan, Kansas.

Mr. Orville W. Robson
Route 3, Box 251
Abilene, Kansas 67410
Telephone: (913) 479-5990

Mr. Robson was contacted at his residence on March 16, 1992, and advised as follows:

Mr. Robson is a retired farmer, age 81, and still lives on his farm which he now rents to his neighbor.

Dobson said he became involved with helping to apply 80/20 in the early 1950's while employed on a part-time basis by the local Agricultural Stabilization and Conservation Office (ASC). He worked part-time to bring in extra cash while continuing to farm. His supervisor at ASC was Merl Hill, who did the actual spraying. Hill is now deceased. Robson stopped working for ASC in about 1959. He never worked for the Navarre CO-OP.

Robson said that one of the places they sprayed was the Commodity Credit Corporation storage site at Navarre. The bins themselves were located on the railroad right of way and the bin sites were owned by the government, to his knowledge.

Robson said he remembered loading two or three 50 gallon barrels of 80/20 on the back of his pickup along with a small gas powered engine which was used to pump the 80/20 out of the barrels. His job was to operate the engine while Hill did the spraying. Hill never entered any of the grain bins to spray but did wear a mask.

With regard to the construction of the grain bins during that time period, Robson recalled that a cylindrical pit was dug about one foot in depth. The bin was then erected starting in the pit and proceeding upward. After completed with a roof, the floor of the bin would be covered with sand over which aluminum panels would be cut and laid. He recalled that there were about 18 -

20 such bins at Navarre which were all about 16 feet high. They were at least 3,000 bushel capacity each.

Spraying was usually done in the fall and then sealed for the winter. ASC would require that the grain be checked periodically for insects. If insects were found, it would be necessary to spray again. Robson said that all the grain treated with 80/20 at Navarre was stored there by the government.

Robson could not recall any incidents of spillage of 80/20 nor any use of 80/20 to pour down rat holes or pumped into the ground to kill termites, ants, or poured down prairie dog holes. He was certain that neither he or Merl Hill ever used 80/20 for any purpose other than treating grain.

ADDENDA

1. Farmer Union Cooperative Association Railroad Leases.
2. Articles of Incorporation.
3. Title Search.

Form 1616 Standard
(Approved by General Solicitor.)

RIGHT OF WAY LEASE.

This Instrument, Executed in duplicate between

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY.
(Write or stamp in full name of Company)

a Kansas corporation (hereinafter called the "Lessor"), party of the first part, and

C.E.FULLINGTON AND F.B.FULLINGTON, partners, doing business under the firm name of THE FULLINGTON LUMBER COMPANY
(hereinafter called the "Lessee"), parties of the second part,

Witnesseth, That for and in consideration of the payment of the rental hereinafter specified, and of the performance by the Lessee of the covenants hereinafter set forth to be performed by the Lessee, the Lessor hereby leases to the Lessee a part of the right of way or station grounds now in the possession of the Lessor, situated at or near

Navarre station, in the County of Dickinson

and State of Kansas described as follows, to wit:

(Here insert description.)

Beginning at a point 23.5 feet westerly of, measured at right angles to the center line of the main track of The Atchison, Topeka and Santa Fe Ry. at M.P. 44 plus 2941.1, thence northerly parallel with said center line 118 ft. thence westerly at right angles 32ft; thence southerly at right angles 118 ft; thence easterly at right angles 32 ft. to point of beginning. Containing 3776 Sq.Ft., to be used as coal bins. Less than 100 ft. from any Ry. Co. building 37.5 ft. from Co. tool house.

the location and dimensions of said premises being more definitely shown on the print hereunto annexed, designated "Exhibit A" and made a part hereof.

To Have and to Hold the same from May 1st, 19 19, until such time as this contract shall be terminated, as hereinafter provided.

In Consideration of the aforesaid Lease, the Lessee covenants and agrees to and with the Lessor as follows:

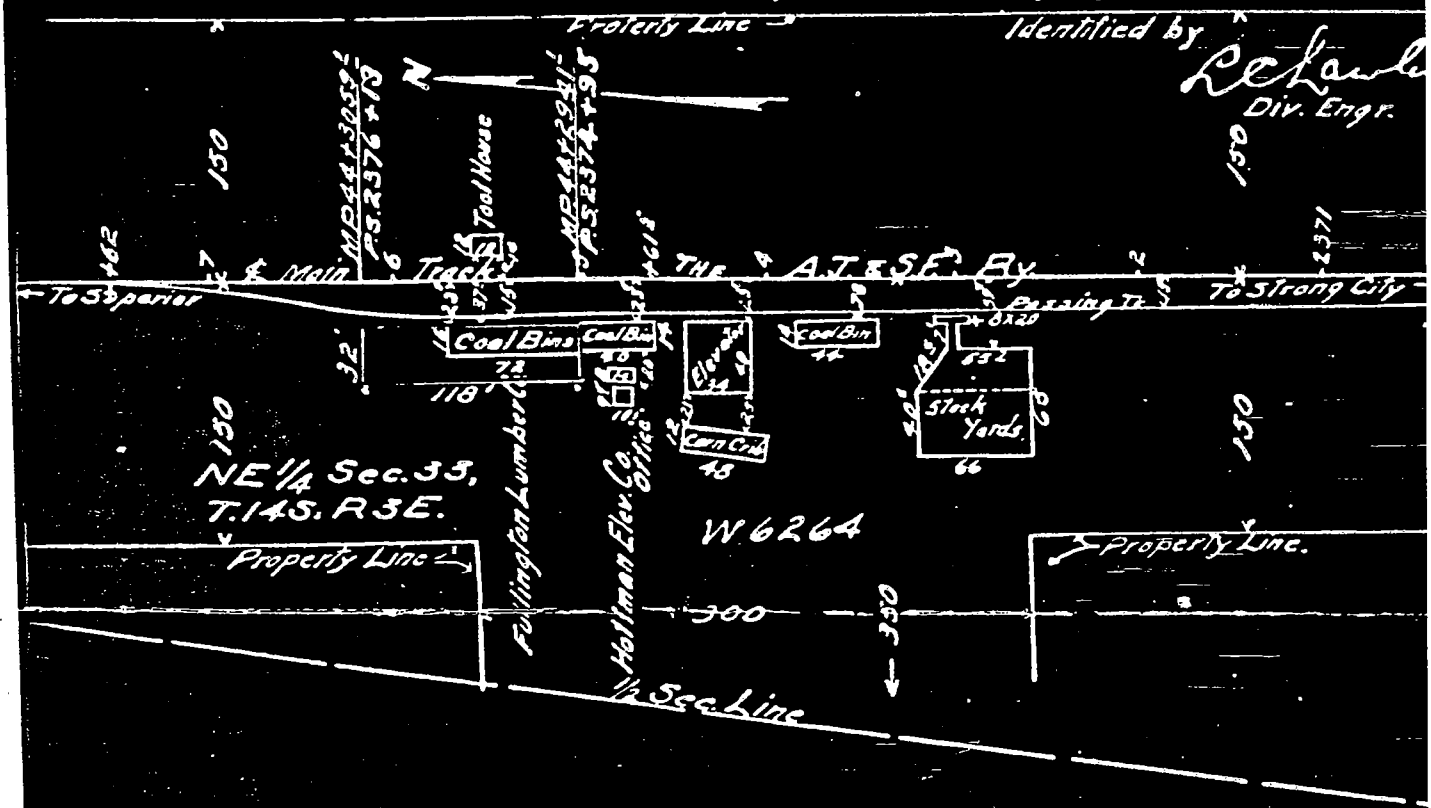
1. That it will pay to the Lessor Twelve (12.00) in advance, as rental for the demised premises, a sum which shall represent interest at the rate of six per cent (6%) per annum on the fair value of said premises, but in no case shall said rental be less than Twelve Dollars ($12.00) per year. Such fair value shall be increased from time to time by the amount of any charge or assessment (except general property taxes) which the Lessor shall be required to pay on account of or in respect to said premises for paving, curbing, sidewalks, sewers, benefit districts and the like. For the purposes of this lease, the fair value of the demised premises at the date hereof is agreed to be Seventeen Dollars, ($17.00).

2. That it will pay before the same become delinquent all taxes, charges, rates and assessments which may, during the term of this lease, be levied upon or assessed against or be equitably chargeable to or assessed in respect to any buildings and improvements which may be placed upon the demised premises by the Lessee; and where any such tax, rate, charge or assessment may be embraced in the general amount of taxes charged upon the demised premises separately or in connection with other property of the Lessor and the Lessor shall pay all of said taxes, then the Lessee will promptly repay or refund to the Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to any buildings or improvements placed on the demised premises by the Lessee.

EXHIBIT "A"

TO BE ATTACHED TO AGREEMENT BETWEEN
THE ATCHISON TOPEKA AND SANTA FE RAILWAY CO.
MIDDLE DIVISION STRONG CITY DISTRICT
AND
THE FULLINGTON LUMBER CO.
COVERING LEASE OF STATION GROUNDS AT
NAVARRE, DICKINSON COUNTY, KANSAS.

Scale 1"=100' D.E.O. Newton, Kans. MAY, 3, 1914.



Description:-

Beginning at a point 23½ feet westerly of, measured at right angles to the center line of the main track of The Atchison, Topeka and Santa Fe Ry. at M.P. 44+2941½, thence northerly parallel with said center line 118 ft. thence westerly at right angles 32 ft., thence southerly at right angles 118 ft., thence easterly at right angles 32 ft. to point of beginning. Containing 3776 sq. ft., to be used for coal bins. Less than 150 ft. from any Ry. Co. building. 37½ ft. from Co. tool house.

R.N-620

CONSENT OF LESSOR TO ASSIGNMENT.

The Lessor named in the foregoing lease hereby consents to an assignment of said lease by the Lessee in it named to..... provided the assignee named shall agree in writing to assume and be bound by all the obligations of the Lessee thereunder.

Dated this.....day of.....19.....

.....Lessor.

By.....

Its.....

ASSIGNMENT.

For value received, the Lessee named in the foregoing lease hereby assigns and transfers this lease and all of the rights conferred by it to.....,

and guarantees that said.....will keep and perform all the covenants and agreements of the Lessee thereunder.

Dated this.....day of.....19.....

.....

ACCEPTANCE.

The undersigned accepts the foregoing assignment of the lease mentioned therein and agrees to discharge all of the obligations imposed by said lease upon the Lessee named therein, and to use and occupy the premises described in said lease upon and subject to its terms and conditions.

Dated this.....day of.....19.....

.....

Form 1616 Standard
(Approved by General Solicitor.)

Secretary's File No.

Right of Way Lease

The A. T. & S. F. Ry. Co.

TO

The Lillington Sta. Co.

Site for coal bin

Navarre Station.

Middle Division.

In effect May 1 19

EXPIRES ON THIRTY DAYS' NOTICE.

Div. Supt.'s No.

Chief Engineer's No. 17121

Hall 10 15 2M 15037

NOTE.—If not organized for financial profit insert word "not" in second subdivision, relating to purposes.

Charter.

The undersigned, citizens of the State of Kansas, do hereby voluntarily associate ourselves together for the purpose of forming a private corporation under the laws of the State of Kansas, and do hereby certify:

FIRST.

That the name of this corporation shall be THE The Navarre Farmers' Union Cooperative Association.

SECOND.

That this corporation is organized ——— for profit, and that the purposes for which it is formed are: ~~The purchase and sale of grain and other farm products, with facilities and commission~~: to carry on a general merchandise and sales business dealing in merchandise, feed, fuel and other necessities and products of the farm: ~~to purchase, hold, and lease real estate and other properties for the use of the company in transacting its business~~ and to own, direct, control, lease and operate grain elevators, warehouse, store rooms ~~and other buildings~~ and to acquire property in any terminal markets necessary to the conduct of said business: to purchase and hold stock in cooperative business associations as provided and limited by law: to do, perform and carry on any or all the business aforesaid described, anywhere in Dickinson County, Kansas. all on the cooperative plan

THIRD.

That the place where its business is to be transacted is at Navarre, Dickinson County Kansas.

FOURTH.

That the term for which this corporation is to exist is FIFTY YEARS.

FIFTH.

That the number of directors of this corporation shall be nine

and the names and residences of those who are appointed for the first year are:

D. S. Strole President Navarre Kansas
Geo. V. Lay V. Pres. Enterprise "
A. H. Wingerd Sec. Hope "
B. H. Shank Treas. Navarre "
L. Meili Hope "
W. P. Eddy " "
E. G. Hoffman Dillon "
C. H. Counter Enterprise "
J. A. Sheets Hope "

SIXTH.

That the estimated value of the goods, chattels, lands, rights and credits owned by the corporation is _____ Dollars.

That the amount of the capital stock of this corporation shall be Twenty Thousand Dollars, and shall be divided into Two Thousand shares, of Ten Dollars each.

SEVENTH.

That the names and residences of the stockholders of said corporation, and the number of shares held by each, are as follows, to wit:

NAMES.	RESIDENCES.	NO. OF SHARES.
Geo V Lay V. Pres.	Enterprise Ks.	25
D S Strole Pres.	Navarre "	25
L Meili	Hope "	10
W. P. Eddy	Hope "	10
E. G. Hoffman	Dillon "	1
C H Counter	Enterprise "	10
A H Wingerd Sec.	Hope "	20
J A Sheets	Hope "	10
B H Shank Treas.	Navarre "	10
C S Anderson	Enterprise	25
W B Eddy	Hope "	25

John Landin	Navarre	Ks.	20
Alby Sheets	"	"	10
J M Stroble	Hope	"	10
F R Silvius	Hope	"	10
L K Markley	Hope	"	10
D H Luckenbaugh	Navarre	"	10
at C P Pitts	Hope	"	10
A L Shenk	Abilene	"	10
M Blagg	Hope	"	10
~~W H Hoffman~~		"	10

In Testimony Whereof, We have hereunto subscribed our names, this 18th day of April A. D. 19 19

C L Anderson, Alby Sheets, Geo W Loy
W B Eddy, C P Pitts, W F Stroble
John Landine, L Meuli
J M Stroble, W P Eddy
H. L. Luckenbaugh, E A Hoffman
F. R. Silvius, C H Counter
L K Markley, A L Shenk
G H Wright, M Blagg
J. A. Sheets, W H Hoffman
B. H. Shenk

STATE OF KANSAS, } ss.
Dickinson County,

Personally appeared before me, a Notary Public in and for Dickinson County, Kansas, the above-named C L Anderson, W B Eddy, Alby Sheets, C P Pitts, John Landine, J M Stroble, H L Luckenbaugh, F R Silvius, L K Markley, Geo W Loy, W F Stroble, L Meuli, W P Eddy, E A Hoffman, C H Counter, G H Wright, A L Shenk, J A Sheets, M Blagg, B H Shenk, W H Hoffman

who are personally known to me to be the same persons who executed the foregoing instrument of writing, and duly acknowledged the execution of the same.

In Testimony Whereof, I have hereunto subscribed my name and affixed my notarial seal, this 18th day of April A. D. 19 19

[SEAL]

E. F. Nelson
Notary Public.

My Commission expires December-11-1921

O. M. JOHNSON, PRESIDENT
ABILENE, KANSAS
PHONE 2721

EMERY DIEHL, SEC.-TR.
CHAPMAN, KANSAS
PHONE 6625

THE DICKINSON COUNTY FARMERS EDUCATIONAL AND CO-OPERATIVE UNION NO. 58

Abilene Kans 4/18 191

Mr. L. J. Pettijohn
Secretary of State
Topeka Kans.

Dear Sir: Enclosed herewith you will find Application for Charter and Charter together with check for fees.

Application fee $7.50
Recording " 2.50
Capitalization " 20.00
$49.50

You may address all communications to me in regard to the above and very much oblige.

Yours Truly
O M Johnson

OFFICE OF SECRETARY OF STATE.

Received of THE Navarre Farmers Union Co-operative Association

and deposited in the State Treasury, fees on this Charter as follows:

April 19	, 1919.	Application fee	$ 25 00
May 9,	, 1919.	Filing and recording fee	$ 2 50
May 9,	, 1919.	Capitalization fee	$ 20 00

L. J. Pettijohn
Secretary of State.

By M. Farr
Chief Clerk.

96/152

Charter

OF

PLACE OF BUSINESS

FILED
MAY 9 1919
L. J. PETTIJOHN,
SECRETARY OF STATE.

TRIPLICATE
The A. T. & S. F. Ry.
36189-a

AT&SF SECRETARY'S CONTRACT NO. _____

----ooo----

Consent of

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

To an assignment by

THE BURLINGTON LUMBER COMPANY

to

FARMERS UNION CO-OPERATIVE ASSOCIATION

of

AT&SF Secretary's Contract
No. 36189, dated July 6th,
1916, relating to a coal
bin location at Navarre,
Kansas.

----ooo----

AGREEMENT, Made this First day of June 1921, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Kansas corporation, hereinafter called the "Railway Company", C.E.FULLINGTON AND J.E. FULLINGTON, a co-partnership doing business under firm name The Fullington Lumber Company, hereinafter collectively called "Assignors" and FARMERS UNION CO-OPERATIVE ASSOCIATION, a Kansas corporation, hereinafter called the "Assignee".

R E C I T A L S:

The Railway Company and the Assignors entered into a lease dated July 6th, 1916, (Railway Company's Secretary's No.36189) relating to a coal bin location upon the Railway Company's right of way at Navarre, Kansas.

The Assignors now desire to assign all of their interest in said lease to the Assignee.

A G R E E M E N T:

FOR VALUE RECEIVED, the Assignors hereby jointly and severally assign to the Assignee the lease mentioned in the foregoing recitals, and all rights of the Assignors thereunder.

IN CONSIDERATION of the assignment of the Assignors and the consent of the Railway Company herein contained the Assignee hereby accepts said assignment and assumes and agrees to observe and discharge all of the conditions and obligations in the aforesaid lease which are by the terms thereof to be observed and kept by the Assignor, and the

Assignee further agrees not to assign said lease or any right or interest therein, and not to sublet the demised premises or any part thereof without the written consent of the Railway Company in each instance.

IN CONSIDERATION of the premises and of the covenants of the Assignee herein contained, and the faithful performance of the same, the Railway Company consents to the assignment by the Assignors to the Assignee of the above mentioned lease.

IN WITNESS THEREOF, the parties have caused this agreement to be executed in triplicate the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY.

By _____
Its Assistant General Manager.

_____

_____

Doing business under name
The Sullinton Lumber Company.

FARMERS UNION CO-OPERATIVE ASSOCIATION.

By _____
Its _____

644075

DUPLICATE
The A. T. & S. F. Ry. Co.
74624

Form 1616 Standard
(Approved by General Solicitor)

RIGHT OF WAY LEASE

This Instrument, Made this 5th day of June, 1934, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Kansas corporation (hereinafter called the "Lessor"), party of the first part, and THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION, a Kansas corporation, hereinafter (whether one or more persons or corporations) called the "Lessee," party of the second part.

Witnesseth, That for and in consideration of the payment of the rental hereinafter specified, and of the performance by the Lessee of the covenants hereinafter set forth to be performed by the Lessee, the Lessor hereby leases to the Lessee that part of the right of way or station grounds now in the possession of the Lessor, situated at or near Navarre station, in the County of Dickinson and State of Kansas outlined in red coloring on the print hereto attached, No. DEO SZ-N-198, dated May 31, 1934, marked "Exhibit A", and made a part hereof.

Provided, however, the Lessor hereby reserves unto itself and/or its licensees, the right to operate, maintain and renew such pipe lines, electric transmission lines, telephone lines, telegraph lines, signal lines, and other facilities of like character as may exist upon, under, or over the demised premises as of the date of this lease, it being agreed that this lease is subject and subordinate to any and all rights granted by the Lessor for any such existing lines and facilities; and the Lessee releases the Railway Company from any and all loss or damage which the Lessee may sustain on account thereof.

To Have and to Hold the same from May 11, 1934, until such time as this lease shall be terminated as hereinafter provided.

In Consideration of the aforesaid lease, the Lessee covenants and agrees to and with the Lessor as follows:

1. That it will pay to the Lessor annually in advance, as rental for the demised premises, a sum which shall represent interest at the rate of six per cent (6%) per annum on the fair rental value of said premises, but in no case shall said rental be less than Twelve and No/100 Dollars ($12.00) per year. Such value shall be increased from time to time by the amount of any charge or assessment (except general property taxes) payable on account of or in respect to said premises for paving, curbing, sidewalks, sewers, benefit districts and the like, and shall also be subject to revision at least once every five (5) years during which this lease may continue in effect. For the purposes of this lease, the fair rental value of the demised premises at the date hereof is agreed to be Three Hundred Eighty-five and No/100 Dollars, ($385.00), and the initial rental shall be Twenty-three and 10/100 Dollars, ($23.10) per annum.

2. That it will pay before the same become delinquent all taxes, charges, rates and assessments which may, during the term of this lease, be levied upon or assessed against or be equitably chargeable to or assessed in respect to any buildings and improvements which may be placed upon the demised premises by the Lessee; and where any such tax, rate, charge or assessment may be embraced in the general amount of taxes charged upon the demised premises separately or in connection with other property of the Lessor and the Lessor shall pay all of said taxes, then the Lessee will promptly repay or refund to the Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to any buildings or improvements placed on the demised premises by the Lessee.

3. That it will use the demised premises exclusively as a site for elevator, coal bins, bulk oil station and other buildings

4. That it will keep the demised premises and the buildings and structures thereon in a condition satisfactory to the Lessor, and will from time to time, as may be required by the Lessor, paint all such buildings and structures with paints of a color approved by the Lessor. Should the Lessee fail or refuse within fifteen (15) days to comply with any request made by the Lessor to place the premises or any building or structure thereon in proper condition, or to paint any such building or structure, the Lessor may, at its option, perform such work, and in such event the Lessee shall promptly reimburse the Lessor for the cost so incurred.

5. That it will perform, observe and comply with all federal and state laws, orders or regulations and municipal ordinances or regulations regarding inspection, sanitation, safety devices, fires and other matters connected with the maintenance and use of said premises, and in the event the demised premises shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, that it will also observe and comply with

all the regulations and recommendations from time to time published by the Bureau of Explosives of the American Railway Association, or any successor agency, and that it will indemnify and save harmless the Lessor against all fines, penalties, claims, demands and suits, at law or in equity, and loss or damage to property, arising in any manner out of the non-observance by the Lessee of any federal or state law, order, or regulation, municipal ordinance or regulation, or Bureau of Explosives regulation or recommendation as aforesaid, or out of the use by the Lessee of the demised premises or the buildings or improvements erected thereon or out of the sole or contributing acts, omissions or negligence of the Lessee or of the servants or agents of the Lessee in, on or about the demised premises in the use thereof by the Lessee, and will promptly pay to the Lessor the amount of any loss or damage to property sustained by the Lessor and the amount of any fine, penalty or judgment which may be laid or recovered against the Lessor on account of any matter or thing against which the Lessor is indemnified as in this paragraph 5 provided.

6. That it will at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort but, nevertheless, the Lessee may erect loading platforms which shall not be higher than three (3) feet and six (6) inches above the top of the rails and which at no point shall be nearer than four (4) feet to the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required than those provided for in this Section 6, then the Lessee shall strictly comply with such statute or order. In case of a breach of these obligations, or any of them, the Lessee assumes and agrees to indemnify the Lessor against all liability for loss, damage, injury and death arising therefrom and to reimburse the Lessor for any sums which the Lessor may have been required to pay in the way of damages, fines, penalties or other expense resulting from the violation by the Lessee of any statute or order as aforesaid.

7. That it will indemnify and hold harmless the Lessor from all loss or damage, by fire, to all buildings, structures or improvements at any time upon the demised premises, and all property of any sort belonging to the Lessee or others in said buildings and structures or upon the demised premises, whether such fire shall be caused by the negligence of the Lessor or its employes, or otherwise.

8. That it will waive all claims which it might or could have for injury to stock or animals pasturing, working or being on the demised premises, whether the same arise from such animals or stock taking fright or otherwise.

9. That neither the Lessee, its legal representatives, successors or assigns, nor any subsequent assignee, shall underlease or sublet the demised premises or the buildings or improvements erected thereon, or any part thereof, nor assign this lease or any interest herein, without the written consent and approval in each instance of the Lessor, and that, at the option of the Lessor, this lease shall be forfeited by any such voluntary sublease or assignment or by any assignment thereof by operation of law.

10. That in case of eviction of the Lessee by anyone owning or claiming title to the said land, the Lessor shall not be liable to the Lessee for any damage of any nature whatsoever, or to refund any rental paid hereunder.

11. That if any rent hereunder shall be due and unpaid, or if default shall be made in any of the covenants of the Lessee herein contained, then it shall be lawful for the Lessor to re-enter the demised premises and to remove all persons therefrom.

12. That this lease may be terminated at any time by either party upon thirty (30) days' notice in writing to be served upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this lease and all rights of the Lessee hereunder shall absolutely cease and determine; but upon any such termination the Lessee shall be entitled to have refunded by the Lessor a proportionate part of any rentals paid in advance.

13. Any notice to be given by the Lessor to the Lessee hereunder shall be deemed to be properly served if the same be delivered to the Lessee, or if left with any of the agents, servants or employes of the Lessee on the leased premises, or if posted on the leased premises, or if deposited in the postoffice, postpaid, addressed to the Lessee at

Navarre, Kansas.

14. That upon the expiration or termination of this lease in any manner herein provided, the Lessee upon demand of the Lessor, without further notice, shall deliver up to the Lessor the possession of the demised premises and shall remove all the improvements placed thereon by the Lessee and restore the demised premises to substantially their former state, and in case the Lessee shall fail within thirty (30) days after the date of expiration or termination of this lease to make such removal or restoration, then the Lessor may, at its election, either remove said improvements and restore said premises for the account and at the sole cost of the Lessee, or may take and hold the said improvements as its sole property.

15. No termination or cancellation hereof shall release the Lessee from any liability or obligation (whether of indemnity or otherwise) which may have attached or accrued previous to or which may be accruing at the time of such termination or cancellation.

16. In the event that the Lessee herein embraces two or more persons or corporations, all the covenants and agreements of the Lessee herein shall be the joint and several covenants and agreements of such persons or corporations.

17. That all the covenants and provisions of this lease shall be binding upon the Lessee and the executors administrators, successors and assigns of the Lessee, and shall inure to the benefit of the successors and assigns of the Lessor.

It is mutually agreed that the contain agreement dated Nov. 6

The parties mutually agree that the rental

day of....., 19....., and the premises therein described surrendered to the Lessor.

Dated this.....day of....., 19.....

.....

By.....

Its.....

(Lessor.)

.....

.....

(Lessee.)

Form 1616 Standard
(Approved by General Solicitor)

Secretary's File No.....

Right of Way Lease

TO

Site for .....Station.....Division.

In effect.....19.....

EXPIRES ON THIRTY DAYS' NOTICE.

Div. Supt.'s No.....

Chief Engineer's No.....

Hall 6 33 3M 2604

Form 1616 Standard
(Approved by General Solicitor)
RIGHT OF WAY LEASE

It is mutually agreed that the certain agreement dated May 6, 1920, between the Lessor and Navarre Farmers Union Business Association, (which concern subsequently changed its name to The Navarre Farmers Union Co-Operative Association), Lessor's Secretary's Contract No. 43928, relating to the use of a portion of Lessor's property at Navarre, Kansas, as a site for coal bin and elevator, shall be and the same is hereby terminated as of the effective date hereof.

It is further mutually agreed that the certain agreement dated July 16, 1916, between the Lessor and The Fullington Lumber Company, (Lessor's Secretary's Contract No. 36189), relating to the use of a portion of Lessor's property at Navarre, Kansas, as a site for coal bin as assigned under date of June 1, 1921, to the Farmers Union Co-operative Association, (to all of whose rights and obligations in said agreement the Lessee has succeeded), shall be and the same is hereby terminated as of the effective date hereof.

In Witness Whereof, This instrument has been duly executed in duplicate by the parties hereto the day and year first above written.

~~THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY~~ (Lessor).

Approved as to description: By [illegible]

Its ~~Assistant to General Manager~~

Chief Engineer.

~~THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATIO~~

By C. Z. Shank Pres.

Its (Lessee)

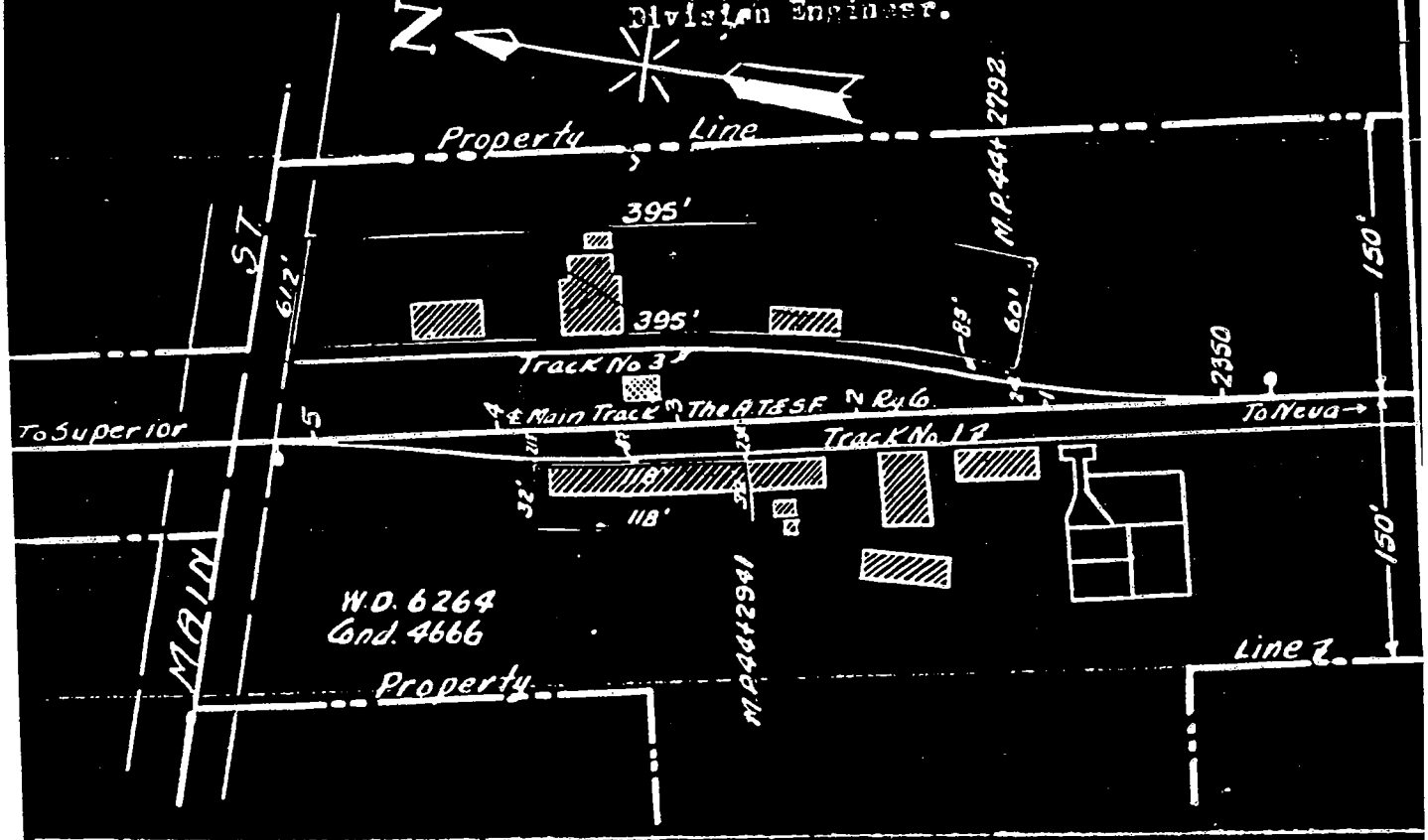
[redacted]

EXHIBIT "A"
To be attached to agreement between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division, Strong City District
and
THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION
covering lease of site for elevator, coal bins,
bulk oil station and other buildings.
At Navarre, Dickinson County, Kansas
Scale 1"=100' DEO Newton, Kansas, May 31, 1934

[illegible] site for [illegible] coal bins,
[illegible] station and other buildings.
[illegible], Dickinson County, Kansas
[illegible] Newton, [illegible], May 21, 1924

Identified by,

Division Engineer.



Area of site 27,476 square feet.

Value of site $535.00

DEC [illegible]

STRAIGHT

DUPLICATE
The A. T. & S. F. Ry. Co.
74021

Form 1616 Standard
(Approved by General Solicitor)

RIGHT OF WAY LEASE

E. T. NELSON, PRESIDENT H. R. TURNER, VICE PRESIDENT D. C. MEULI, CASHIER

THE FIRST NATIONAL BANK 23

12,384

HOPE, KANSAS, 19

RESOLUTION PASSED March 27th 1940, BY THE OFFICERS AND BOARD OF DIRECTORS OF THE NAVARRE FARMERS' UNION CO*OPERATIVE ASSOCIATION

WHEREAS, it is required by Section 142 of Chapter 152, of the 1939 Session Laws of the State of Kansas, that every corporation shall maintain a Registered Office and Resident Agent in this State, it is therefore now and hereby

RESOLVED and ORDERED, by the Officers and Directors of the NAVARRE FARMERS' UNION CO-OPERATIVE ASSOCIATION, meeting in Special Session this 27 Day of March A. D. 1940, that the REGISTERED OFFICE of this corporation shall be at Navarre, Kansas, at the office of the Elevator owned and operated by this corporation at said place; and that H. Cottrell shall be hereby designated as the RESIDENT AGENT of this Corporation, his address being Navarre Kansas.

A. L. Schaub
President

s e a l

H. C. Bowden
Secretary

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 13th day of April, 19 49, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a a Kansas corporation (hereinafter called "Lessor"), and NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION, a Kansas corporation, (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of Dickinson, State of Kansas, outlined in red coloring on the print hereto attached, No DEO SL-M-240, dated April 5, 1949, marked "Exhibit A" and made a part hereof, for a term beginning on January 17, 1949, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will not unreasonably interfere with the use of the Premises by Lessee for the purpose specified in paragraph 6 hereof.

3. Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, a sum equal to six per cent (6%) of the fair rental value of the Premises, but not less than ** Twelve and No/100 ** Dollars ($ 12.00). For the purposes of this lease the fair rental value of the Premises at the effective date hereof is agreed to be ** Six Hundred Seventy-six and No/100 ** Dollars ($ 676.00), and the initial rental shall be ** Forty and 56/100 ** Dollars ($ 40.56) per annum. Such fair rental value shall be increased from time to time by the amount of any governmental charge or assessment (except general property taxes) payable on account of or in respect to the Premises for the construction of public improvements.

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same become delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as a site for elevator, coal bins, bulk oil station and other buildings.

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary, and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

Form 1616 Standard

(Approved by General Solicitor)

Secretary's File No.....

Lease of Land

(Short Term)

.....

TO

.....

.....

Site for.....

.....Station.

.....Division.

In effect.....19.....

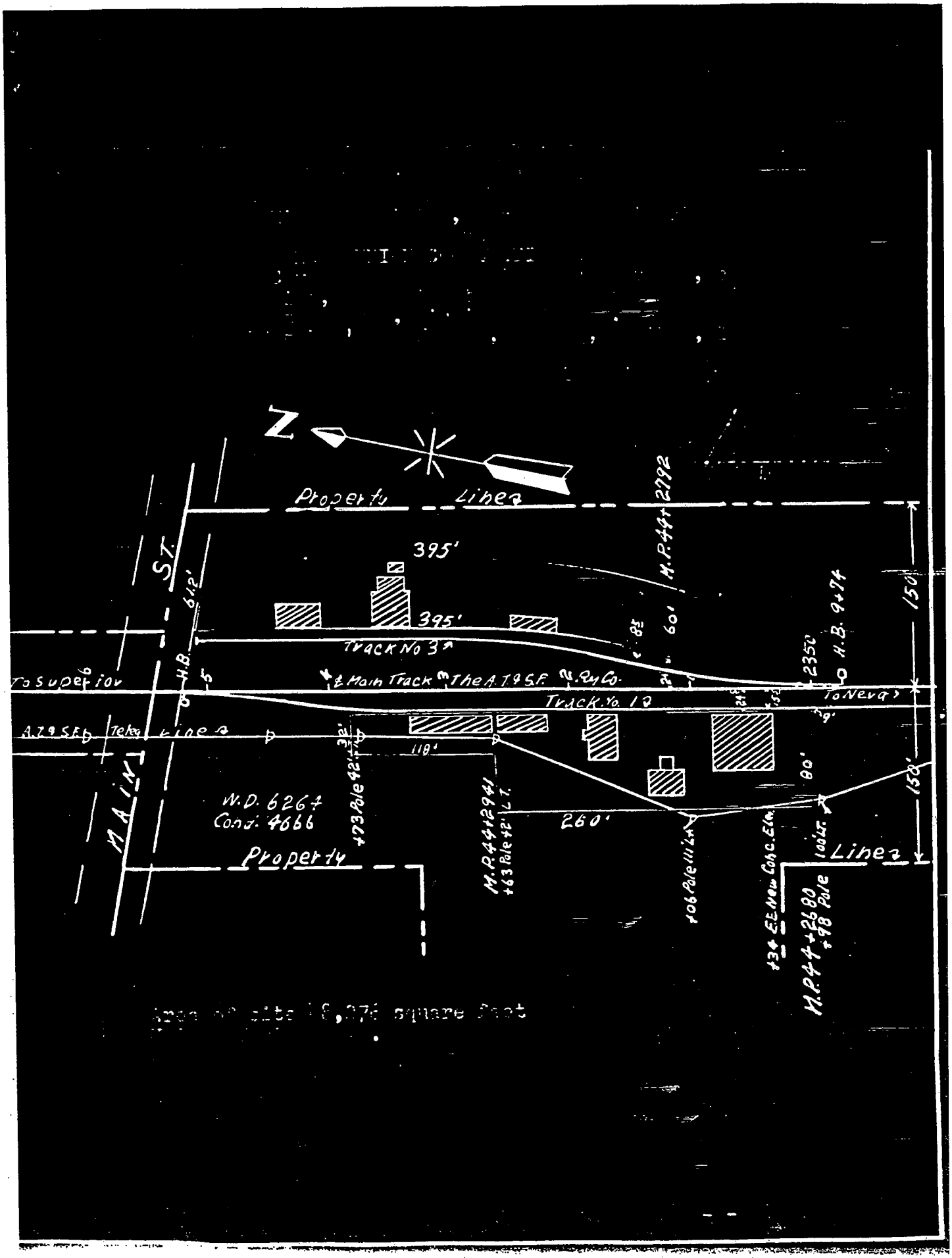
EXPIRES ON THIRTY DAYS' NOTICE.

Div. Supt's No.....

Chief Engineer's No.....

Hall 9 48 3M 8330

(Lessee.)


N
Property Lines
395'
395'
M.P. 44+2792
ST.
612'
H.B.
TRACK No 3
60'
H.B. 9+74
150'
To Superior
5
& Main Track 3 The A.T.&S.F. 2 Ry Co.
2350'
TRACK No. 13
To Nevada
A.T.&S.F. Tele. Lines
32'
118'
80'
150'
MAIN
W.D. 6267
Conf. 4666
+73 Pole 42'
M.P. 44+2941
+63 Pole 42' L.T.
260'
+06 Pole 111'
100 Lin.
Property
Lines
+34 E.E. New Conc. Elm.
M.P. 44+2680
+98 Pole
Area of site 18,074 square feet

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 8th day of October, 19 52, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY a Kansas corporation (hereinafter called "Lessor"), and NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION, a Kansas corporation (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of Dickinson, State of Kansas, outlined in red coloring on the print hereto attached, No. DEO SL-N-240, dated April 5, 1949, revised October 1, 1952, marked "Exhibit A" and made a part hereof, for a term beginning on October, 1, 19 52, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will not unreasonably interfere with the use of the Premises by Lessee for the purpose specified in paragraph 6 hereof.

3. Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, a sum equal to six per cent (6%) of the fair rental value of the Premises, but not less than Twelve and No/100 Dollars ($ 12.00). For the purposes of this lease the fair rental value of the Premises at the effective date hereof is agreed to be Four Hundred Ninety-two and No/100 Dollars ($ 492.00), and the initial rental shall be Twenty-nine and 52/100 Dollars ($ 29.52) per annum. Such fair rental value shall be increased from time to time by the amount of any governmental charge or assessment (except general property taxes) payable on account of or in respect to the Premises for the construction of public improvements.

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same become delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as a site for elevator, coal bins, bulk oil station and other buildings

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary, and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereon Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improvements shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Lessee shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau o Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump houses warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handled o stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation an any other electrical installation upon the Premises shall at all times conform to and be maintained in accordanc with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardou locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration o repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authorize to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by la to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take an such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clea of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twenty five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on an railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes c other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any tim project or extend in the direction of such track except when crane or device is being used for loading or unloadin freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of th rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail c such track; provided, however, if by statute or order of competent public authority different clearances shall be re quired, then Lessee shall strictly comply with such statute or order.

10. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor ma sustain, incur or become liable for, including loss of or damage to property or injury to or death of persons and fine or penalties imposed upon or assessed against Lessor, arising in any manner out of (a) the use of the Premises c Improvements by Lessee, (b) any breach by Lessee of the terms, covenants or conditions in this instrument containe or (c) the sole or contributing acts or omissions of Lessee or the employes, agents, patrons or invitees of Lessee in, o or about the Premises or Improvements, except that if Lessor shall participate in any such contributing acts or omi sions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally; provide however, that Lessee hereby assumes the risk of, and agrees to indemnify Lessor against liability for, loss of or damag to the property of Lessee or of others upon the Premises (except any rolling stock or shipments in the course of tran portation and except any property of Lessor or others placed or kept on the Premises pursuant to paragraph 2 hereo due to fire communicated from locomotives while being operated by Lessor upon any tracks within or in the vicini of the Premises, regardless of Lessor's negligence, if any.

11. Neither Lessee, nor the heirs, legal representatives, successors or assigns of Lessee, nor any subseque assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or transf this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premise Lessor shall not be liable to Lessee for any damage of any nature whatsoever, or to refund any rental paid hereunde except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be due and unpaid, or if default shall be made in any of the covenants or agre ments of Lessee herein contained, or in case of any assignment or transfer of this lease by operation of law, Less may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver l Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subseque default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice termination upon the other party, stating therein the date that such termination shall take place, and upon the piration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease a determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate p of any rentals paid in advance.

15. Any notice to be given by Lessor to Lessee hereunder shall be deemed to be properly served if the same delivered to Lessee, or if left with any of the agents, servants or employes of Lessee, or if posted on the Premises, if deposited in the Post Office, postpaid, addressed to Lessee at Navarre, Kansas

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Les the possession of the Premises and shall remove the Improvements and restore the Premises to substantially state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (days after the date of such termination to make such removal or restoration, then Lessor may, at its election to exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the acco of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Les for the cost so incurred, or may take and hold the Improvements as its sole property.

of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Les for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilitie and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no terminatior hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resultin from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improve ments are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

20. It is agreed that the certain agreement dated June 5, 1934 (Lessor's Secretary's Contract No. 74024) between the parties hereto, relating to the use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, as a site for elevator, coal bins, bulk oil station and other buildings, is hereby terminated effective as of the date hereof.

IN WITNESS WHEREOF, This lease has been duly executed in duplicate by the parties hereto as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessc

Approved as to description:

By

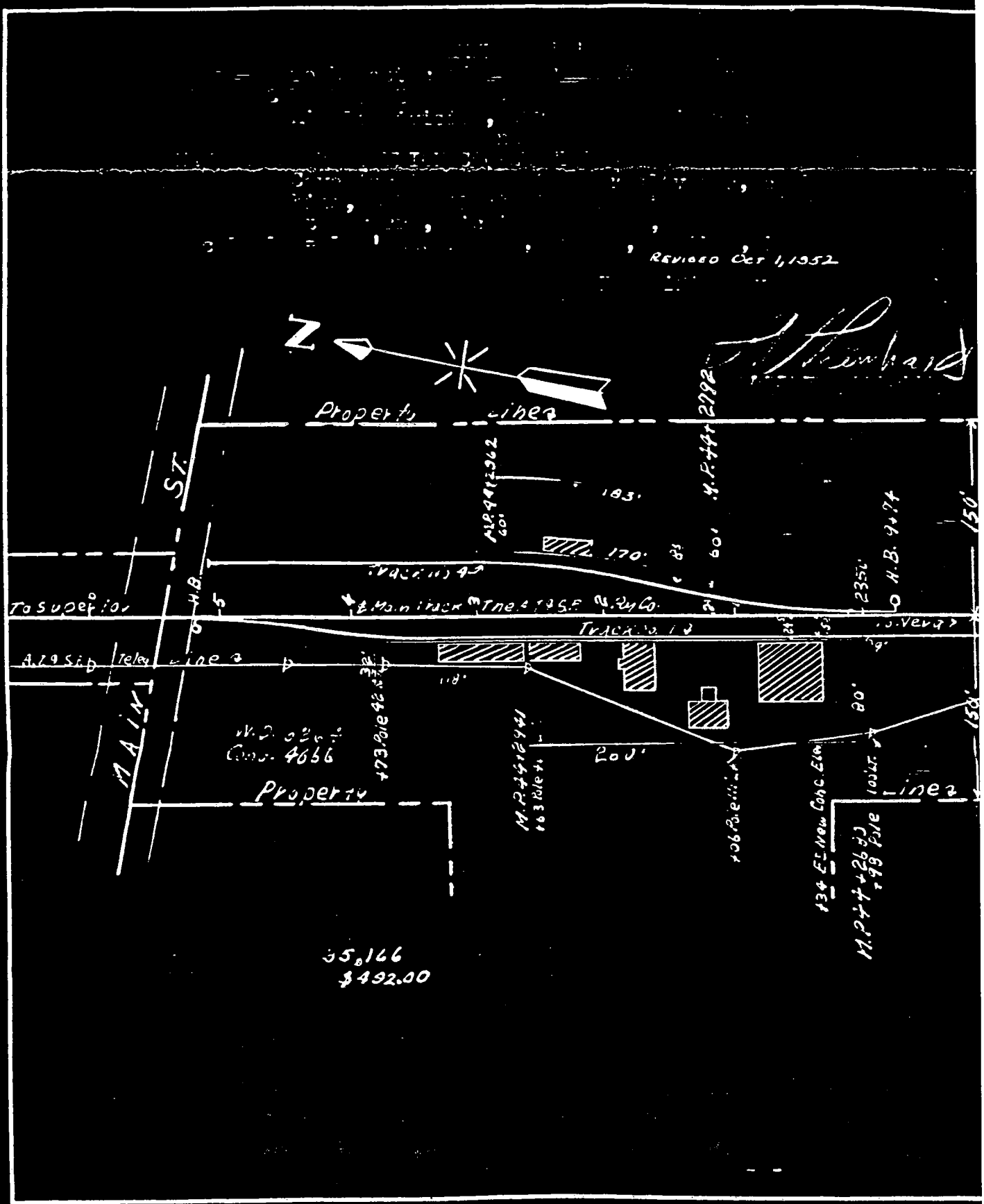
Its Assistant to General Manager

Chief Engineer.

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION,

By M. E. Rohner

Its President (Lessee)


Revised Oct 1, 1952
N
Property lines
ST.
MAIN
Property
183'
170'
150'
200'
80'
118'
Tracks
To Superior
Tracks
Alongside Tele. lines
Lines
35,166
$492.00

CANCELLATION AND SURRENDER

The parties mutually agree that the foregoing lease is hereby cancelled as of the.....
day of....., 19....., and the premises therein described surrendered to the Lessor.

Dated this.....day of....., 19.....

.....

By.....

Its.....
(Lessor.)

.....

.....
(Lessee.)

Form 1616 Standard
(Approved by General Solicitor)

Secretary's File No.....

Lease of Land
(Short Term)

TO

.....

.....

.....

Site for.....

Station.....

Division.

In effect.....19.....

EXPIRES ON THIRTY DAYS' NOTICE.

Div. Supt's No.....

Chief Engineer's No.....

Hall 5 61 3M 3117

Return to
Secretary, The A. T. & S. F. Ry. Co. Topeka

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 21st day of June, 1954, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY a Kansas corporation (hereinafter called "Lessor"), and COMMODITY CREDIT CORPORATION, a Government Agency (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of Dickinson, State of Kansas, outlined in red coloring on the print hereto attached, No. DEO SL-N-259, dated June 11, 1954, marked "Exhibit A" and made a part hereof, for a term beginning on May 15, 1954, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will not unreasonably interfere with the use of the Premises by Lessee for the purpose specified in paragraph 6 hereof.

3. Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, a sum equal to six per cent (6%) of the fair rental value of the Premises, but not less than Twelve and No/100 Dollars ($ 12.00). For the purposes of this lease the fair rental value of the Premises at the effective date hereof is agreed to be Five Hundred Twenty Six and 85/100 Dollars ($ 526.85), and the initial rental shall be Thirty One and 61/100 Dollars ($ 31.61) per annum. Such fair rental value shall be increased from time to time by the amount of any governmental charge or assessment (except general property taxes) payable on account of or in respect to the Premises for the construction of public improvements.

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same become delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as a site for grain storage bins.

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereon, Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders, or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improvements shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Lessee shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau of Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump houses, warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handled or stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation and any other electrical installation upon the Premises shall at all times conform to and be maintained in accordance with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardous locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration or repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authorized to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by law to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take any such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twenty-five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on any railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes or other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any time project or extend in the direction of such track except when crane or device is being used for loading or unloading freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of the rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required, then Lessee shall strictly comply with such statute or order.

10. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor may sustain, incur or become liable for, including loss of or damage to property or injury to or death of persons and fines or penalties imposed upon or assessed against Lessor, arising in any manner out of (a) the use of the Premises or Improvements by Lessee, (b) any breach by Lessee of the terms, covenants or conditions in this instrument contained, or (c) the sole or contributing acts or omissions of Lessee or the employes, agents, patrons or invitees of Lessee in, on or about the Premises or Improvements, except that if Lessor shall participate in any such contributing acts or omissions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally; provided, however, that Lessee hereby assumes the risk of, and agrees to indemnify Lessor against liability for, loss of or damage to the property of Lessee or of others upon the Premises (except any rolling stock or shipments in the course of transportation and except any property of Lessor or others placed or kept on the Premises pursuant to paragraph 2 hereof) due to fire communicated from locomotives while being operated by Lessor upon any tracks within or in the vicinity of the Premises, regardless of Lessor's negligence, if any.

11. Neither Lessee, nor the heirs, legal representatives, successors or assigns of Lessee, nor any subsequent assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or transfer this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premises, Lessor shall not be liable to Lessee for any damage of any nature whatsoever, or to refund any rental paid hereunder, except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be due and unpaid, or if default shall be made in any of the covenants or agreements of Lessee herein contained, or in case of any assignment or transfer of this lease by operation of law, Lessor may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver by Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subsequent default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice of termination upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease and determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate part of any rentals paid in advance.

15. Any notice to be given by Lessor to Lessee hereunder shall be deemed to be properly served if the same be delivered to Lessee, or if left with any of the agents, servants or employes of Lessee, or if posted on the Premises, or if deposited in the Post Office, postpaid, addressed to Lessee at

Abilene, Kansas

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Lessor the possession of the Premises and shall remove the Improvements and restore the Premises to substantially the state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (30) days after the date of such termination to make such removal or restoration, then Lessor may, at its election to be exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the account of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilities and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no termination hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improvements are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

IN WITNESS WHEREOF, This lease has been duly executed in duplicate by the parties hereto as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessor)

Approved as to description:

R. H. Carnell
For Chief Engineer.

By [signature]

Its Assistant to General Manager

COMMODITY CREDIT CORPORATION

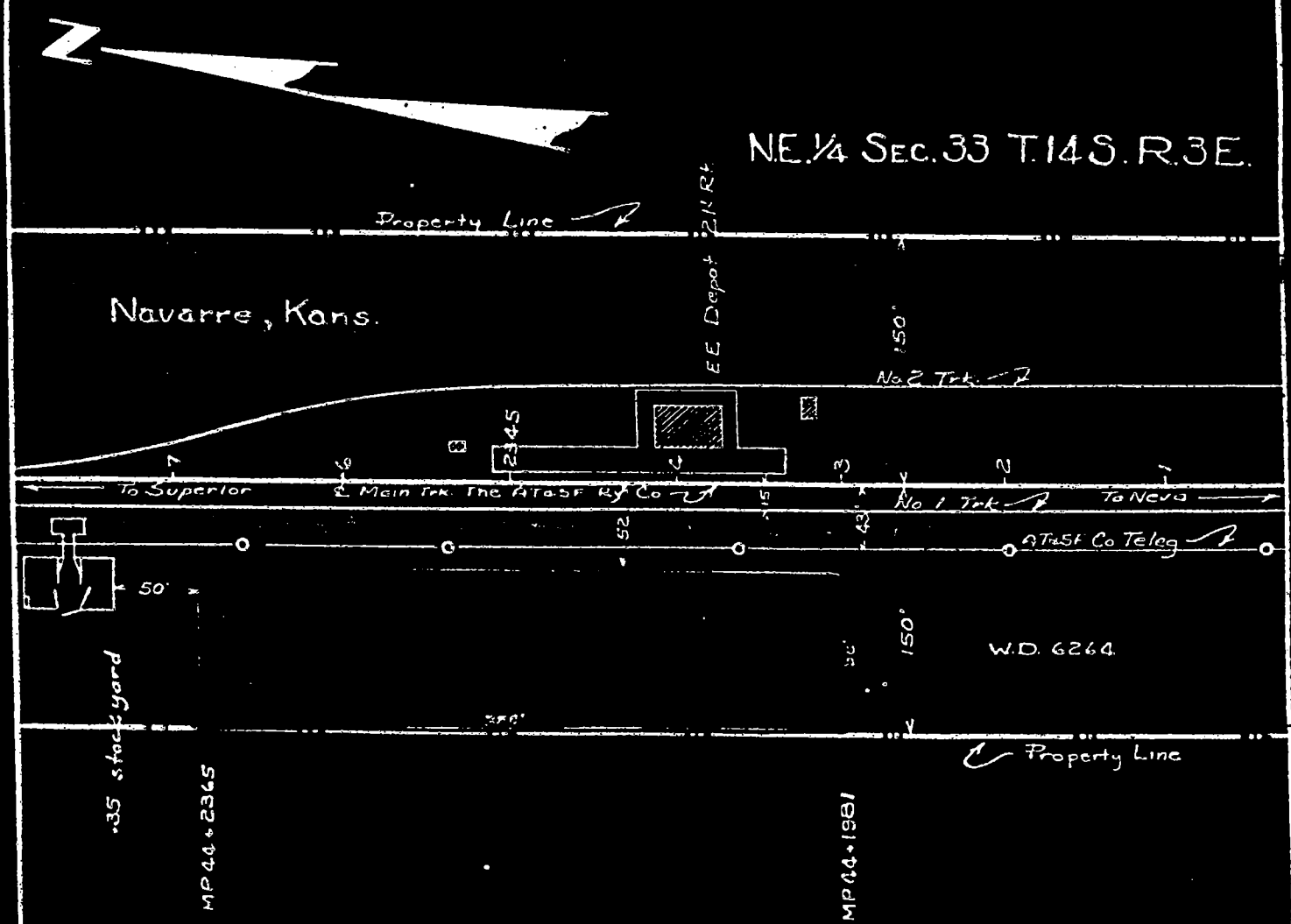
By [signature]

Its Chairman, Dickinson County ASC Committee (Lessee).

To Customer Relations
THE ATCHISON TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division Storm City District

COMMODITY GRAIN INSPECTION
Covering lease of site for grain storage bins at
Navarre, Dickinson County, Kansas
Scale 1" = 100' DEO Newton, Kansas, No. CI-N-259
Dated June 11, 1954 Prepared by

Division Engineer



Area [illegible] 37,[illegible]32 square feet
Value of site 2,[illegible]26.85

DEO DRAWING NO. CI-N-259

IN WITNESS WHEREOF, the parties hereto have executed this Supplemental Agreement in duplicate the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

FORM APPROVED
W.E. Treadway
ATTORNEY

By _____

Its Assistant to General Manager

COMMODITY CREDIT CORPORATION

By _____ Chairman, Dickinson ASC County Committee

Its ~~Agent~~

(Lessee)

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereo Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orde or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improv ments shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Less shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump house warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handled stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation a any other electrical installation upon the Premises shall at all times conform to and be maintained in accordan with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardo locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authoriz to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by l to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take a such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely cle of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twent five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on a railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any ti project or extend in the direction of such track except when crane or device is being used for loading or unloadi freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of t rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail such track; provided, however, if by statute or order of competent public authority different clearances shall be r quired, then Lessee shall strictly comply with such statute or order.

10. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor m sustain, incur or become liable for, including loss of or damage to property or injury to or death of persons and fin or penalties imposed upon or assessed against Lessor, arising in any manner out of (a) the use of the Premises Improvements by Lessee, (b) any breach by Lessee of the terms, covenants or conditions in this instrument containe or (c) the sole or contributing acts or omissions of Lessee or the employes, agents, patrons or invitees of Lessee in, or about the Premises or Improvements, except that if Lessor shall participate in any such contributing acts or om sions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally; provide however, that Lessee hereby assumes the risk of, and agrees to indemnify Lessor against liability for, loss of or dama to the property of Lessee or of others upon the Premises (except any rolling stock or shipments in the course of tra portation and except any property of Lessor or others placed or kept on the Premises pursuant to paragraph 2 here due to fire communicated from locomotives while being operated by Lessor upon any tracks within or in the vicin of the Premises, regardless of Lessor's negligence, if any.

11. Neither Lessee, nor the heirs, legal representatives, successors or assigns of Lessee, nor any subseque assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or trans this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premis Lessor shall not be liable to Lessee for any damage of any nature whatsoever, or to refund any rental paid hereund except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be due and unpaid, or if default shall be made in any of the covenants or agr ments of Lessee herein contained, or in case of any assignment or transfer of this lease by operation of law, Les may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subsequ default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice termination upon the other party, stating therein the date that such termination shall take place, and upon the piration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate p of any rentals paid in advance.

15. Any notice to be given by Lessor to Lessee hereunder shall be deemed to be properly served if the same delivered to Lessee, or if left with any of the agents, servants or employes of Lessee, or if posted on the Premises if deposited in the Post Office, postpaid, addressed to Lessee at Navarre, Kansas

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Le the possession of the Premises and shall remove the Improvements and restore the Premises to substantially state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty days after the date of such termination to make such removal or restoration, then Lessor may, at its election t exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the acco of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Le for the cost so incurred, or may take and hold the Improvements as its sole property.

the possession of the Premises and shall remove the Improvements and restore the Premises to satisfactory [illegible] state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (3 days after the date of such termination to make such removal or restoration, then Lessor may, at its election to exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the accou of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Les for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilit and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no terminati hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resulti from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improv ments are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole proper as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee here contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal rep sentatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Less

20. That in the use of the Premises, Lessee shall exercise utmost a extraordinary diligence to the end that no damage shall occur to Lessc communication line located upon the Premises, and Lessee hereby agrees to pay Lessor within twenty (20) days after rendition of bill therefor the entire cost of repairing any damage to said communication line resulting in any manner from or in connection with Lessee's use of the Premises.

21. It is agreed that the agreement dated October 8, 1952, (Lessor's Secretary's Contract No. 101411) between the parties hereto, relating the use of a portion of Lessor's property at Navarre, Dickinson County Kansas, as a site for elevator, coal bins, bulk oil station and other buildings is hereby terminated as of the effective date hereof.

IN WITNESS WHEREOF, This lease has been duly executed in duplicate by the parties hereto as of the d and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessc

Approved as to description: By

Its Assistant ~~to~~ General Manager

Chief Engineer.

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

By W. E. Rohrer

Its President (Lessc

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 4th day of August, 19 58, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY a Kansas corporation (hereinafter called "Lessor"), and NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION, a Kansas corporation (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of Dickinson, State of Kansas, outlined in red coloring on the print hereto attached, No. DEO SL-K-282, dated July 28, 1958, marked "Exhibit A" and made a part hereof, for a term beginning on November 18, 19 57, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will not unreasonably interfere with the use of the Premises by Lessee for the purpose specified in paragraph 6 hereof.

3. Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, a sum equal to six per cent (6%) of the fair rental value of the Premises, but not less than Twenty-five and No/100 Dollars ($ 25.00). For the purposes of this lease the fair rental value of the Premises at the effective date hereof is agreed to be Six Hundred Eighty-Six and No/100 Dollars ($ 686.00), and the initial rental shall be Forty-one and 16/100 Dollars ($ 41.16) per annum. Such fair rental value shall be increased from time to time by the amount of any governmental charge or assessment (except general property taxes) payable on account of or in respect to the Premises for the construction of public improvements.

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same become delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as a site for elevator, coal bins, bulk oil station, warehouse and other buildings

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary, and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereon, Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders, or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improvements shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Lessee shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau of Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump houses, warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handled or stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation and any other electrical installation upon the Premises shall at all times conform to and be maintained in accordance with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardous locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration or repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authorized to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by law to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take any such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twenty-five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on any railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes or other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any time project or extend in the direction of such track except when crane or device is being used for loading or unloading freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of the rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required, then Lessee shall strictly comply with such statute or order.

10. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor may sustain, incur or become liable for, including loss of or damage to property or injury to or death of persons and fines or penalties imposed upon or assessed against Lessor, arising in any manner out of (a) the use of the Premises or Improvements by Lessee, (b) any breach by Lessee of the terms, covenants or conditions in this instrument contained, or (c) the sole or contributing acts or omissions of Lessee or the employes, agents, patrons or invitees of Lessee in, on or about the Premises or Improvements, except that if Lessor shall participate in any such contributing acts or omissions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally; provided, however, that Lessee hereby assumes the risk of, and agrees to indemnify Lessor against liability for, loss of or damage to the property of Lessee or of others upon the Premises (except any rolling stock or shipments in the course of transportation and except any property of Lessor or others placed or kept on the Premises pursuant to paragraph 2 hereof) due to fire communicated from locomotives while being operated by Lessor upon any tracks within or in the vicinity of the Premises, regardless of Lessor's negligence, if any.

11. Neither Lessee, nor the heirs, legal representatives, successors or assigns of Lessee, nor any subsequent assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or transfer this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premises, Lessor shall not be liable to Lessee for any damage of any nature whatsoever, or to refund any rental paid hereunder, except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be due and unpaid, or if default shall be made in any of the covenants or agreements of Lessee herein contained, or in case of any assignment or transfer of this lease by operation of law, Lessor may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver by Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subsequent default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice of termination upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease and determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate part of any rentals paid in advance.

15. Any notice to be given by Lessor to Lessee hereunder shall be deemed to be properly served if the same be delivered to Lessee, or if left with any of the agents, servants or employes of Lessee, or if posted on the Premises, or if deposited in the Post Office, postpaid, addressed to Lessee at Navarre, Kansas

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Lessor the possession of the Premises and shall remove the Improvements and restore the Premises to substantially the state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (30) days after the date of such termination to make such removal or restoration, then Lessor may, at its election to be exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the account of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilities and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no termination hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improvements are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

20. It is agreed that the agreement dated April 13, 1949, (Lessor's Secretary's Contract No. 95727) between the parties hereto, relating to the use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, as a site for elevator, coal bins, bulk oil station and other buildings is hereby terminated as of the effective date hereof.

IN WITNESS WHEREOF, This lease has been duly executed in duplicate by the parties hereto as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessor)

By L L Lane

Its Assistant to General Manager

Approved as to description:

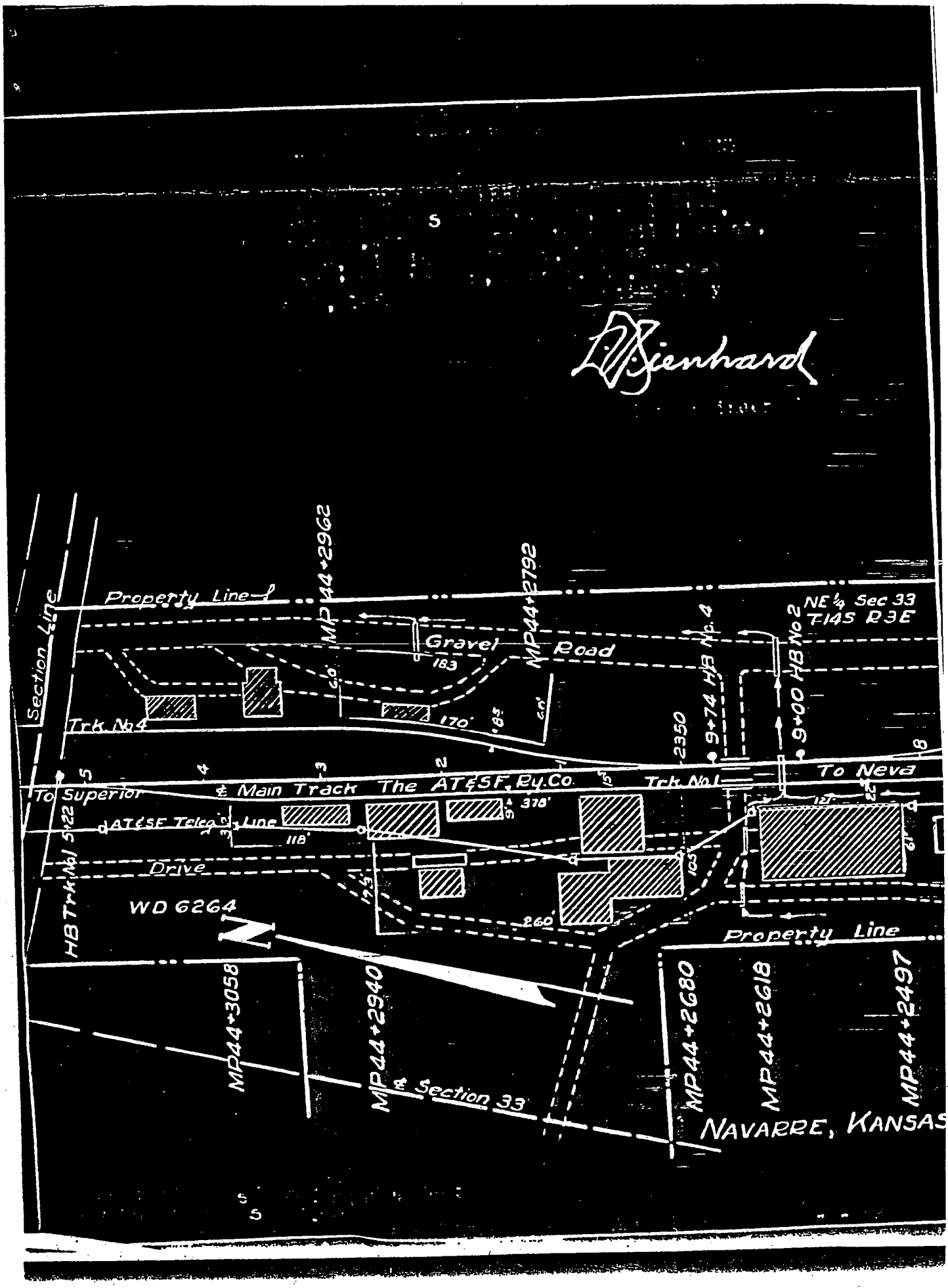
Chief Engineer.

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

By N C Bowden

Its Secretary (Lessee).

(Attach print here.)


Bjenhard
Property Line
MP44+2962
MP44+2792
NE¼ Sec 33
T14S R3E
Gravel Road
183
170'
85'
60'
HB No 4
HB No 2
9+74
9+00
2350
Section Line
Trk No 4
To Superior
& Main Track The AT&SF Ry.Co.
Trk No 1
To Neva
AT&SF Teleg. Line
118'
378'
Drive
WD 6264
HB Trk No 1
260'
Property Line
MP44+3058
MP44+2940
MP44+2680
MP44+2618
MP44+2497
& Section 33
NAVARRE, KANSAS

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements th Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, o or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Imp ments shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, I shall comply with all applicable regulations and recommendations from time to time promulgated by the Bur Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump h warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handl stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installatio any other electrical installation upon the Premises shall at all times conform to and be maintained in accor with the provisions of the then current edition of the National Electrical Code with respect to Class I haza locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alterati repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby auth to post any notices or take any other action upon or with respect to the Premises that is or may be permitted b to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to tak such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof

(Lessee.)

Form 1616 Standard
(Approved by General Solicitor)

Secretary's File No.

Lease of Land
(Short Term)

TO

Site for

Station.

Division.

In effect, 19

EXPIRES ON THIRTY DAYS' NOTICE.

Div. Supt's No.

Chief Engineer's No.

Hall 11 57 3M 1944

861

CERTIFICATE OF AMENDMENT TO ARTICLES OF INCORPORATION
OF

THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION

STATE OF KANSAS, ---------
COUNTY OF Dickinson, } ss.

We, M. E. Rohrer, President, and Dale Kauffman

Secretary of The Navarre Farmers Union Co-operative Association

a corporation organized and existing under the laws of the State of Kansas, and whose registered office is

(Street and Number) Navarre (Town or City) Dickinson (County)

Kansas, do hereby certify that at the Regular (Regular or Special) meeting of the Board of Directors of said corpo

tion held on the 19th day of October, 1959, said board adopted a re

lution setting forth the following amendment to the Articles of Incorporation and declared its advisability, to v

(Article 6-Capital Stock) That the amount of capital stock of this corporation shall be One Hundred Thousand Dollars ($100,000) consisting of Ten Thousand (10,000) shares of Ten Dollars ($10.00) per share.

That thereafter, pursuant to said resolution and in accordance with the by-laws and the laws of the Stat Kansas, said directors called a meeting of stockholders for the consideration of said amendment, and thereat

pursuant to said notice and in accordance with the statutes of the State of Kansas, on the 1st da

February, 1960, said stockholders met and convened and considered

proposed amendment.

That at said meeting the stockholders entitled to vote did vote upon said amendment, and two judges c appointed for the purpose conducted said vote deciding upon the qualification of voters and declared that the jority of voting stockholders of the corporation had voted for the proposed amendment certifying that the v

were Three Hundred and Thirty-four (334) (By class or classes) shares in favor of the proposed amendment

Thirteen (13) (By class or classes) shares against the amendment.

That the total number of members reflected by the books and records of said c

That said amendment was duly adopted in accordance with the provisions of Chapter 17, Article 42, Gen Statutes of Kansas, 1949, and amendments thereto.

That the capital of said corporation will not be reduced under or by reason of said amendment.

IN WITNESS WHEREOF we have hereunto set our hands and affixed the sea

said corporation this 31 day of May 19

[SEAL]

M. E. Rohrer
President or

Dale Kauffman
Secretary or

TOPEKA, KANSAS, June 30, 19 60

RECEIVED OF THE NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

Eighty Two and fifty/100 ---------- Dollars,

fee for filing the within Certificate of Amendment.

Paul R. Shanahan
Secretary of State.

By James L. Galle
Assistant Secretary of State.

FILED
PAUL R. SHANAHAN
JUN 30 10 24 AM 1960
SECRETARY OF STATE

RECEIVED
PAUL R. SHANAHAN
JUN 30 9 35 AM 1960
SECRETARY OF STATE

RECEIVED
PAUL R. SHANAHAN
JUN 23 9 11 AM 1960
SECRETARY OF STATE

STATE OF KANSAS,
County of McPherson } ss.

Be it remembered, that before me Delora V. Romine a Notary Public in and for the County and State aforesaid, came M. R. Rohrer President, and Dale Kauffman Secretary, of The Navarre Farmers Union Co-operative Association, a corporation, personally known to me to be the persons who executed the foregoing instrument of writing as President and Secretary respectively, and duly acknowledged the execution of the same this 31st day of May 19 60

[Seal] Notary Public.

My commission expires 1962 19

FORM NO. 3060

CHANGE OF LOCATION OF REGISTERED OFFICE
AND/OR
CHANGE OF RESIDENT AGENT

STATE OF Kansas
COUNTY OF Dickinson } ss.

We, M. E. Rohrer President and Dale Kauffman Secretary c

Navarre Farmers Union Cooperative Association

a corporation organized and existing under and by virtue of the laws of the State of Kansas

whose Registered Office in the State of Kansas is Navarre, Kansas (Street and Number)

(Town or City) Dickinson (County) Kansas (State)

do hereby certify that a Regular (Regular or Special) meeting of the Board of Directors of said corporation held

on the 27 day of March 19 61, the following resolution was duly adopted

Be it resolved that the *Registered Office* in the State of Kansas of said corporation be changed from

(Street and Number) (Town or City) (County) (State)

the same being of record in the office of the Secretary of State of Kansas to (Street and Number)

(Town or City) (County) (State)

Be it further resolved that the *Resident Agent* of said corporation in the State of Kansas be changed from

D. S. Strole (Individual or Corporation)

Navarre (Street and Number) (Town or City) Dickinson (County) Kansas (State)

the same being of record in the office of Secretary of State of Kansas to

Ralph Funston (Individual or Corporation)

(Street and Number) Navarre (Town or City) Dickinson (County) Kansas (State)

The President and Secretary are hereby authorized to file and record the same in the manner as required by law.

(Corporate)

[SEAL]

M. E. Rohrer *President.*

Dale Kauffman *Secretary.*

SS7-L

FORM No. 208C

OFFICE OF SECRETARY OF STATE

Topeka, Kansas

RECEIVED OF THE NAVARRE FARMERS' UNION COOPERATIVE ASSOCIATION

Five and no/100 ---------- Dollars,

fee for Change of Location of REGISTERED OFFICE and/or CHANGE OF RESIDENT AGENT.

Dated this 29th day of March 19 61

Paul R. Shanahan
Secretary of State.

By James L. Galle
Assistant Secretary of State.

FILED
MAR 29 1961
PAUL R. SHANAHAN
SEC'Y. OF STATE

A-26-45

MAR 29 10 02 AM 1961

STATE OF KANSAS

OFFICE OF SECRETARY OF STATE
TOPEKA

PAUL R. SHANAHAN
SECRETARY OF STATE

March 7, 1961

The Navarre Farmers Union Cooperative Association
Navarre, Kansas

Gentlemen:

IN RE: *1960 Annual Report*

An examination of the charter records filed with this office for the subject corporation reveals that the resident agent is:
D. S. Strole, Navarre, Kansas

and the location of the registered office is:
Navarre, Kansas

As shown by the last annual report, the resident agent is:
Ralph Funston, Navarre, Kansas

and the location of the registered office is
Navarre, Kansas

If there has been a change, as shown by the annual report, the enclosed blanks should be completed, in duplicate, and returned to this office, together with filing fee of $5.00. It is requested that the address of the resident agent and the address of the registered office coincide in order to conform with our interpretation of Chapter 17, Article 44, G.S. 1959 Supp.

Your cooperation in this matter will be appreciated. If you have any questions, please do not hesitate to call or write.

Sincerely yours,

James L. Galle

James L. Galle
Attorney

JLG/mc
Encls

Secretary, The A. T. & S. F. Ry. Co. Topeka

SUPPLEMENTAL AGREEMENT, Made this 12th day of April, 1961, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Kansas corporation, hereinafter referred to as "Lessor", and COMMODITY CREDIT CORPORATION, a Government Agency,

hereinafter referred to as "Lessee".

R E C I T A L S:

Lessor and Lessee are now parties to a lease dated June 21, 1954, Lessor's Secretary's Contract No. 104166 (hereinafter referred to as "Original Lease"), under which Lessee pays Lessor a rental of $31.61 per year for use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, as a site for grain storage bins.

Lessor desires to modify the Original Lease as hereinafter provided.

A G R E E M E N T:

It is mutually agreed that effective May 15, 1961, Section 3 of the Original Lease is hereby changed to read, as follows:

"Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, the sum of Thirty-six and 88/100 Dollars ($36.88) per annum. Such rental shall be subject to increase from time to time on account of any governmental charge or assessment (except general property taxes) payable in respect to the Premises for the construction of public improvements and shall also be subject to revision at any time after the end of any five (5) year period during the continuance of this lease."

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 22nd day of January, 1962
between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY,
a Kansas corporation (hereinafter called "Lessor")
and NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION, a Kansas corporation,
(hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree a follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, an upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or nea Navarre, County of Dickinson State of Kansas, outlined in red coloring on the print hereto attache No. DEO SL-N-314, dated January 2, 1962 marked "Exhibit A" and made a part hereof, for a term beginning on ....., 19..... and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtaine or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any an all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, ov or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and reloca such additional facilities of the same character as will not unreasonably interfere with the use of the Premises b Lessee for the purpose specified in paragraph 6 hereof.

3. ~~Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of th~~ lease as rental for the use of the Premises for such period, a sum equal to six per cent (6%) of the fair ~~rental value~~ the Premises, but not less than ..... Dollars ($.....
For the purposes of this lease the fair rental value of the Premises at ~~the effective~~ date hereof is agreed to be.....
..... Dollars ($.....
and the initial rental shall be.....
..... Dollars ($.....) per annum. Such fair rental value shall be increase from time ~~to time~~ by the amount of any governmental charge or assessment (except general property taxes) payabl ~~on account of or in respect to the Premises for the construction of public improvements.~~

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners there the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existi Improvements." Such improvements, if any, together with any other improvements hereafter placed upon t Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same become delinquent all taxes, charges, rates, and assessments which ma during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respe of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amou of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall p all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as ~~a site for~~ sites for elavators, coal bins, oil station, warehouse, buildings, tunnel, conveyor and overhead walk

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereon, Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders, or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improvements shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Lessee shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau of Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump houses, warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handled or stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation and any other electrical installation upon the Premises shall at all times conform to and be maintained in accordance with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardous locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration or repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authorized to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by law to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take any such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twenty-five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on any railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes or other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any time project or extend in the direction of such track except when crane or device is being used for loading or unloading freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required, then Lessee shall strictly comply with such statute or order.

10. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor may sustain, incur or become liable for, including loss of or damage to property or injury to or death of persons and fines or penalties imposed upon or assessed against Lessor, arising in any manner out of (a) the use of the Premises or Improvements by Lessee, (b) any breach by Lessee of the terms, covenants or conditions in this instrument contained, or (c) the sole or contributing acts or omissions of Lessee or the employes, agents, patrons or invitees of Lessee in, on or about the Premises or Improvements, ~~except that if Lessor shall participate in any such contributing acts~~ or omissions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally; provided, however, that Lessee hereby assumes the risk of, and agrees to indemnify Lessor against liability for, loss of or damage to the property of Lessee or of others upon the Premises (except any rolling stock or shipments in the course of transportation and except any property of Lessor or others placed or kept on the Premises pursuant to paragraph 2 hereof) due to fire communicated from locomotives while being operated by Lessor upon any tracks within or in the vicinity of the Premises, regardless of Lessor's negligence, if any.

11. Neither Lessee, nor the heirs, legal representatives, successors or assigns of Lessee, nor any subsequent assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or transfer this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premises, Lessor shall not be liable to Lessee for any damage of any nature whatsoever, or to refund any rental paid hereunder, except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be due and unpaid, or if default shall be made in any of the covenants or agreements of Lessee herein contained, or in case of any assignment or transfer of this lease by operation of law, Lessor may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver by Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subsequent default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice of termination upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease and determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate part of any rentals paid in advance.

15. Any notice to be given by Lessor to Lessee hereunder shall be deemed to be properly served if the same be delivered to Lessee, or if left with any of the agents, servants or employes of Lessee, or if posted on the Premises, or if deposited in the Post Office, postpaid, addressed to Lessee at Navarre, Kansas.

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Lessor the possession of the Premises and shall remove the Improvements and restore the Premises to substantially the state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (30) days after the date of such termination to make such removal or restoration, then Lessor may, at its election to be exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the account of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilities and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no termination hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improvements are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

20. It is mutually agreed that Rider "A" hereto attached, identified by the signature of S. S. Rose, is hereby made a part hereof.

RIDER "A"
To Lease dated January 22, 1962
Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
and

sentatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor

20. It is mutually agreed that Rider "A" hereto attached, identifie by the signature of E. S. Rose, is hereby made a part hereof.

RIDER "A"
To Lease dated January 22, 1962
Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
and
NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

21. Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, the sum of Sixty-one and 41/100 Dollars ($61.41) per annum. Such rental shall be subject to increase from time to time on account of any governmental charge or assessment (except general property taxes) payable in respect to the Premises for the construction of public improvements and shall also be subject to revision at any time after the end of any five (5) year period during the continuance of this lease.

22. That in the use of the Premises, Lessee shall exercise utmost and extraordinary diligence to the end that no damage shall occur to Lessor's communication line located upon the Premises, and Lessee hereby agrees to pay Lessor within twenty (20) days after rendition of bill therefor, the entire cost of repairing any damage to said communication line resulting in any manner from or in connection with Lessee's use of the Premises.

23. Notwithstanding anything contained in Section 9 hereof to the contrary, Lessee may, at its sole cost and expense and in a manner satisfactory to Lessor, construct, install, use and maintain an overhead screw conveyor and walk, and an underground tunnel and appurtenances over, under and adjacent to Lessor's tracks in the location indicated and in accordance with the general design shown on said Exhibit "A" in such a manner and of such material as will not at any time be a source of danger to or interference with or the safe operation of Lessor's railroad. During construction, installation, use or repairing of said tunnel and/or overhead screw conveyor and walk, and appurtenances, Lessee shall exercise utmost and extraordinary diligence to prevent damage to property of Lessor or injury to its agents or employes. If at any time during the term hereof, Lessor shall desire to make any use of its property with which said tunnel and/or overhead screw conveyor, walk and appurtenances will in any way interfere, Lessee shall, at Lessee's sole cost, within thirty (30) days after receiving written notice from Lessor to such effect, make such changes in said tunnel and/or overhead screw conveyor, walk and appurtenances as in the judgment of Lessor may be necessary to avoid interference with the proposed use of its property, and, Lessee failing so to do within said thirty-day period, Lessor may make such changes at Lessee's expense.

24. Notwithstanding anything contained in Section 10 hereof to the contrary, Lessee agrees that it will at all times indemnify and save harmless Lessor against all claims, demands, actions or causes of actions arising or growing out of loss of or damage to property including said tunnel and/or overhead screw conveyor, walk and appurtenances or injury to or death of persons, including employes of Lessor, resulting in any manner from the construction, installation, maintenance, use, state of repair or presence of said tunnel and/or overhead screw conveyor, walk and appurtenances under, over or adjacent to said tracks whether such loss, damage, injury or death be caused or contributed to by the negligence of Lessor, its agents or employes, or otherwise, and that it will promptly pay to Lessor the full amount of any loss or damage which Lessor may sustain, incur or become liable for and all sums which Lessor may pay or be compelled to pay in settlement of any claims on account thereof.

25. It is mutually agreed that the agreement dated September 20, 1960, (Lessor's Secretary's Contract No. 113081) between the parties hereto, relating to use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, as sites for elevator, coal bins, bulk oil station, warehouse and other buildings, is hereby terminated as of the effective date hereof.

E. S. Rose

IN WITNESS WHEREOF, This lease has been duly executed in duplicate by the parties hereto as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessor)

Approved as to description:

By [signature]

Its Assistant to General Manager

Chief Engineer.

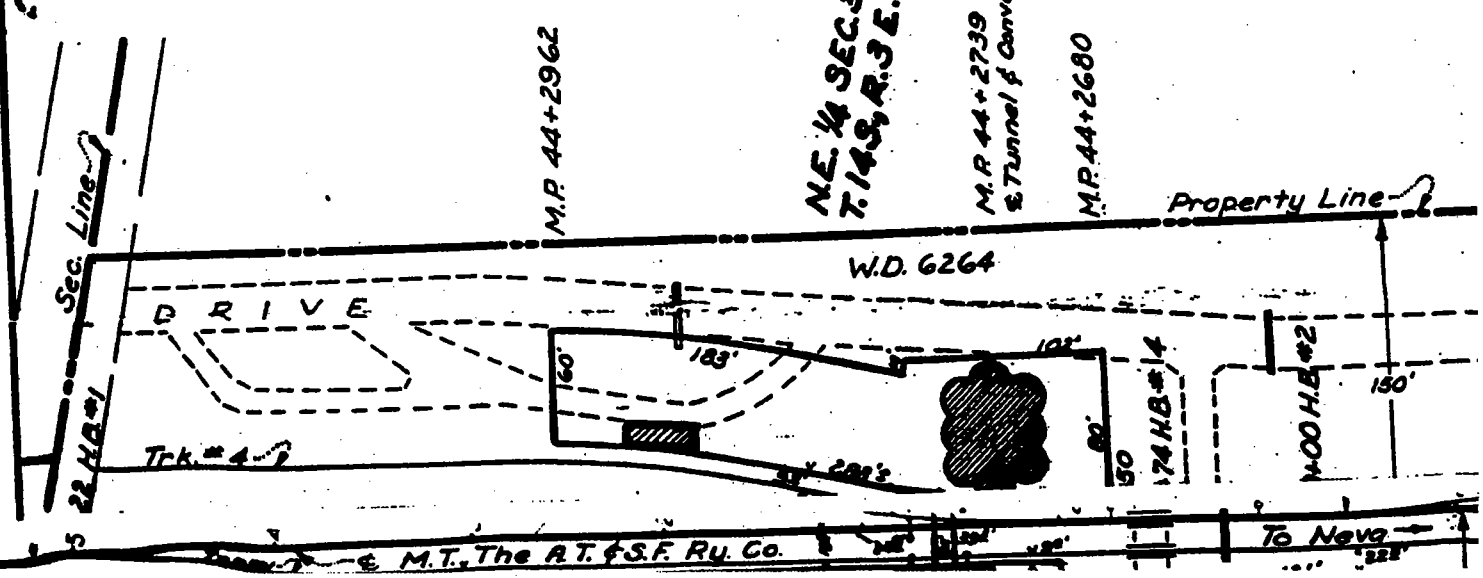
NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

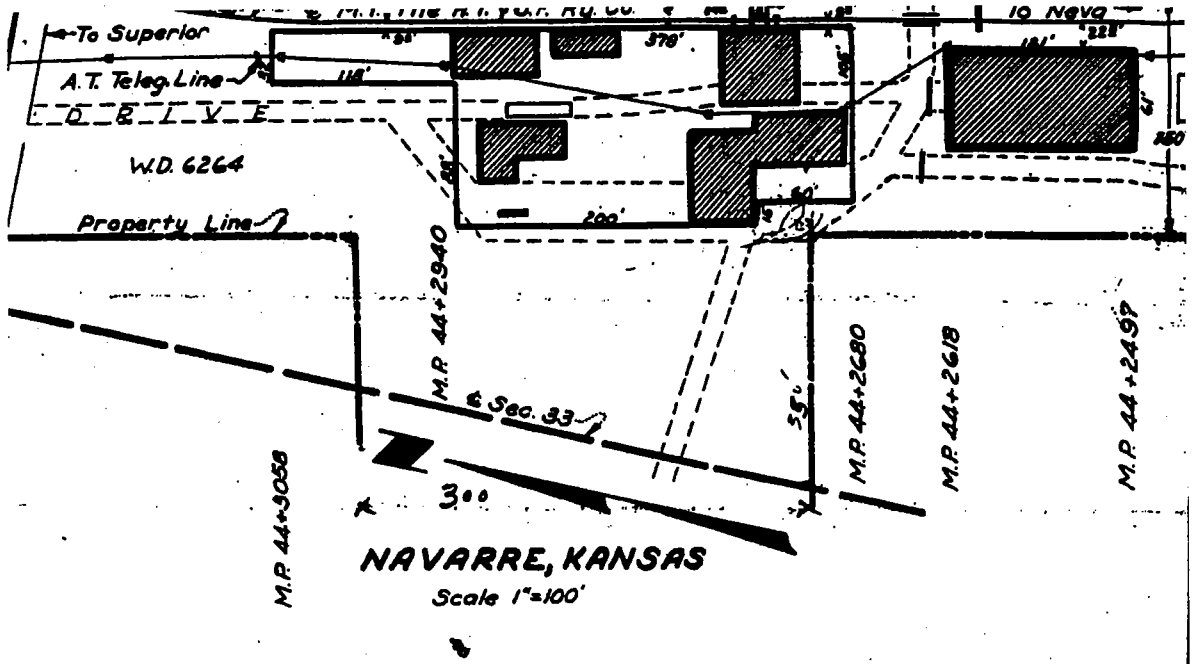
By M. E. Rohrer

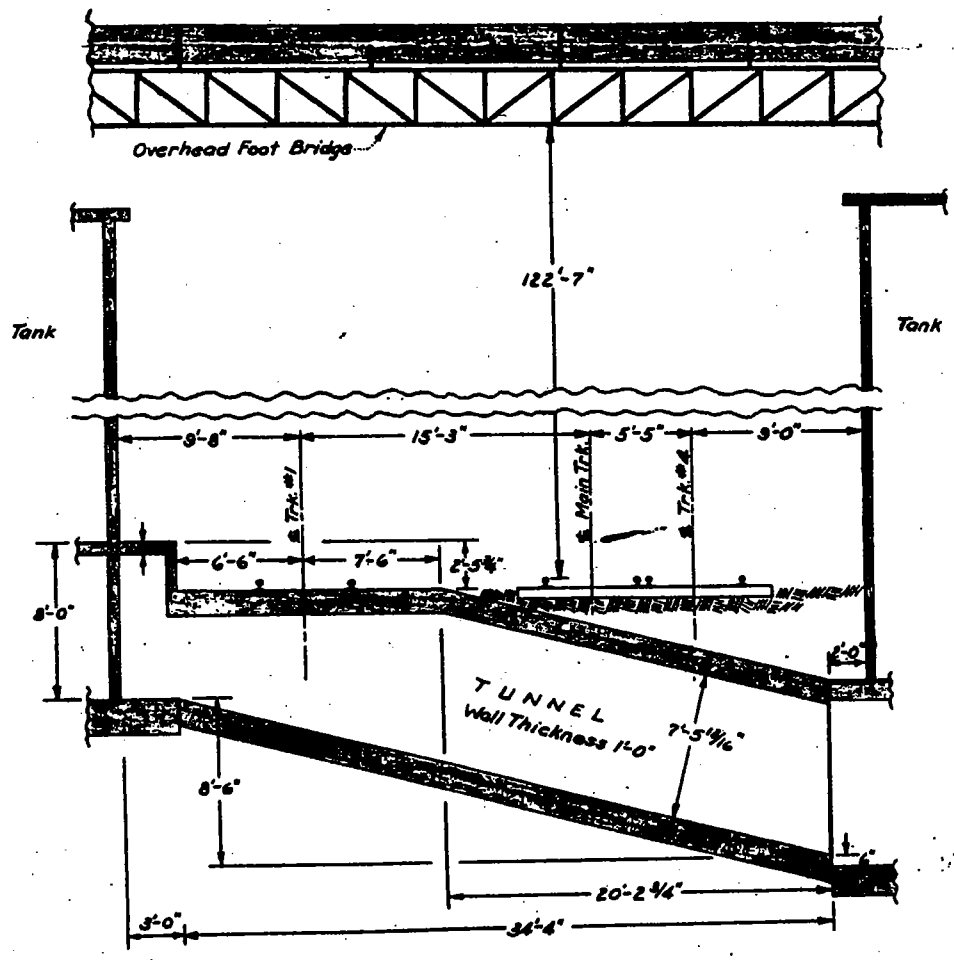
Its President (Lessee).

EXHIBIT "A"
To Contract Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division Strong City District
and
NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION
Covering lease of sites for elevators, coal bins, bulk oil station, warehouse, buildings, tunnel, conveyor and overhead walk at,
Navarre, Dickinson County, Kansas
Scale 1" = 100' DEO Newton, Kansas, No. SL-N-314
Dated January 2, 1962 Identified by

J.J. Word
Div. Engr.







SECTION THRU TUNNEL & SIDE VIEW OF OVERHEAD WALK & CONVEYOR

Scale 1/8"= 1'-0"

Area of sites 60,503 aqu[illegible] feet more or less.

1416

Form 1616 Standard

(Approved by General Solicitor)

Secretary's File No._____

Lease of Land

(Short Term)

annex.

TO

Site for_____

_____Station.

_____Division.

In effect_____, 19_____

EXPIRES ON THIRTY DAYS' NOTICE.

Div. Supt's No._____

Chief Engineer's No._____

Hall 7 61 2M 5677

CANCELLATION AND SURRENDER

...ally agree that the foregoing lease is hereby cancelled as of the_____

_____, 19_____, and the premises therein described surrendered to the Lessor.

_____day of_____, 19_____,

By_____

Its_____ (Lessor).

(Lessee.)

CHANGE OF LOCATION OF REGISTERED OFFICE
AND/OR
CHANGE OF RESIDENT AGENT

STATE OF Kansas
COUNTY OF Dickinson } ss.

We, Dale Kauffman President and Marvin ~~Foos~~ Strunk Secretary of Navarre Farmers Union Cooperative Association,

a corporation organized and existing under and by virtue of the laws of the State of Kansas

whose Registered Office in the State of Kansas is _____ (Street and Number)

Navarre (Town or City) Dickinson (County) Kansas (State)

do hereby certify that a Regular (Regular or Special) meeting of the Board of Directors of said corporation held on the 18 day of February 19 63, the following resolution was duly adopted.

Be it resolved that the *Registered Office* in the State of Kansas of said corporation be changed from

No Change (Street and Number) *Navarre,* (Town or City) *Kansas* (County) (State)

the same being of record in the office of the Secretary of State of Kansas to

No Change (Street and Number) *Navarre, Kansas* (Town or City) (County) (State)

Be it further resolved that the *Resident Agent* of said corporation in the State of Kansas be changed from

Ralph Funston ~~To--Marvin Foos~~ (Individual or Corporation)

Navarre (Street and Number) Dickinson (Town or City) Kansas (County) (State)

the same being of record in the office of Secretary of State of Kansas to

Marvin Foos (Individual or Corporation)

Navarre (Street and Number) *Dickinson* (Town or City) *Kansas* (County) (State)

The President and Secretary are hereby authorized to file and record the same in the manner as required by law.

Dale Kauffman President.
Marvin M. Strunk Secretary.

[SEAL]

567-L

Form No. 208C

0015

CHANGE OF LOCATION OF REGISTERED OFFICE
AND/OR
CHANGE OF RESIDENT AGENT

STATE OF KANSAS
COUNTY OF DICKINSON } SS.

We, ALVIN SANDOW President and CLARENCE GATCH Secretary of NAVARRE FARMER'S UNION COOP ASS'N, a corporation organized and existing under and by virtue of the laws of the State of KANSAS whose Registered Office in the State of Kansas is _____ (Street and Number) NAVARRE (Town or City) DICKINSON (County) KANSAS (State) do hereby certify that a Regular (Regular or Special) meeting of the Board of Directors of said corporation held on the 22 day of JANUARY 1965, the following resolution was duly adopted.

Be it resolved that the *Registered Office* in the State of Kansas of said corporation be changed from NO CHANGE (Street and Number) (Town or City) (County) (State) the same being of record in the office of the Secretary of State of Kansas to _____ (Street and Number) _____ (Town or City) (County) (State)

Be it further resolved that the *Resident Agent* of said corporation in the State of Kansas be changed from MARVIN FOOS (Individual or Corporation) _____ (Street and Number) NAVARRE (Town or City) DICKINSON (County) KANSAS (State) the same being of record in the office of Secretary of State of Kansas to DUANE RUFENER (Individual or Corporation) _____ (Street and Number) NAVARRE (Town or City) DICKINSON (County) KANSAS (State)

The President and Secretary are hereby authorized to file and record the same in the manner as required by law.

SEAL

Alvin L. Sandow, *President.*

Clarence Gatch, *Secretary.*

NOTE: Complete each item on form.
Address of Resident Agent and Registered Office, as set forth above, must be the same.
(Ch. 17, Art. 44, 1959 Supp.)

OFFICE OF SECRETARY OF STATE
Topeka, Kansas

RECEIVED OF THE NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

FIVE and No/100 ($5.00) Dollars,

fee for Change of Location of REGISTERED OFFICE and/or CHANGE OF RESIDENT AGENT.

Dated this 27th day of January 19 65

Frank A. Hanna, *Secretary of State.*

By Thomas R. Shaw, *Assistant Secretary of State.*

FILED
JAN 27 1965
[illegible]

30-2462-S—17-4 [illegible] 2-64-5M

FORM No. 208C

CERTIFICATE OF AMENDMENT TO ARTICLES OF INCORPORATION

OF

Navarre Farmers Union Co-operative Association

~~The Farmers Union Cooperative Association~~

D-6615

STATE OF KANSAS,
County of Dickinson } ss.

We, John Murphy, President, and Lynn Rock, Secretary of Navarre Farmers Union Co-operative Association ~~The Farmers Union Cooperative Association~~,

a corporation organized and existing under the laws of the State of Kansas, and whose registered office is

_____ (Street and Number) Navarre (Town or City) Dickinson (County)

Kansas, do hereby certify that at the regular (Regular or Special) meeting of the Board of Directors of said corporation held on the 16th day of August, 1965, said board adopted a resolution setting forth the following amendment to the Articles of Incorporation and declared its advisability, to wit:

FIRST

That the name of this Corporation shall be Navarre Farmers Union Cooperative ~~The Farmers Union Cooperative~~ Association.

SECOND

This Corporation is organized as a non-profit farmers' cooperative association, and the full nature and character of the business in which it proposes to engage is (1) to engage in any activity in connection with marketing or selling of the agricultural products of its members or with the harvesting, threshing, milling, preserving, drying, processing, canning, packing, storing, handling, shipping or utilization thereof, or the manufacturing or marketing of the by-products thereof; (2) to manufacture, sell or supply to its members, machinery, equipment, and supplies, and to engage in any activity in connection therewith; (3) to do a public warehousing business and store agricultural products in interstate commerce; (4) to engage in the financing of the above-stated activities; and (5) to handle the products of and rende any of the foregoing services to non-members; provided, that this Association shall not market, handle, process, store, or deal in the products of non-members in and amount greater in value than such as is transacted by it with members; and provided further that it shall not engage in the business of banking.

THIRD

That the place where its business is to be transacted is at Navarre, Dickinson County, Kansas.

FOURTH

That the term for which this Corporation is to exist is fifty years.

FIFTH

That the number of directors of this Corporation shall be not less than five (5) nor more than twenty-five (25) as may be provided in the bylaws of the Association.

pursuant to said notice and in accordance with the statutes of the State of Kansas, on the _____ day of October, 1965, said stockholders met and convened and considered said proposed amendment.

That at said meeting the stockholders entitled to vote did vote upon said amendment, and the majority of voting stockholders

Hall 2 63 4M 7795

SANTA FE ORIGINAL

Form 2762 Standard

Copy FILED WITH SECRETARY'S CONTRACT NO. 104166

Filed with Contract No. 104166

Return to Secretary, The A. T. & S. F. RY. Co., Topeka

MUTUAL TERMINATION AGREEMENT

MAR

AGREEMENT Made this 2nd day of February, 19 66

between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY,

a Kansas corporation (hereinafter called "Santa Fe"),

first party, and COMMODITY CREDIT CORPORATION, a Government Agency

second party.

IT IS MUTUALLY AGREED that the instrument(s) described as follows.

Agreement dated June 21, 1954, Santa Fe's Secretary's Contract No. 104166, between the parties hereto, relating to use of a portion of Santa Fe's property at Navarre, Dickinson County, Kansas, as a site for grain storage bins, as modified by Supplemental Agreement dated April 12, 1961, increasing the rental from $31.61 to $36.88 per annum, effective May 15, 1961,

is hereby terminated as of January 17, 1966. Such termination shall not release any party hereto from any liability or obligation under the instrument(s) hereby terminated, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or thereafter in case by the terms of said instrument(s) it is provided that anything shall or may be done after termination thereof.

IN WITNESS WHEREOF the parties hereto have executed this agreement in duplicate the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY,

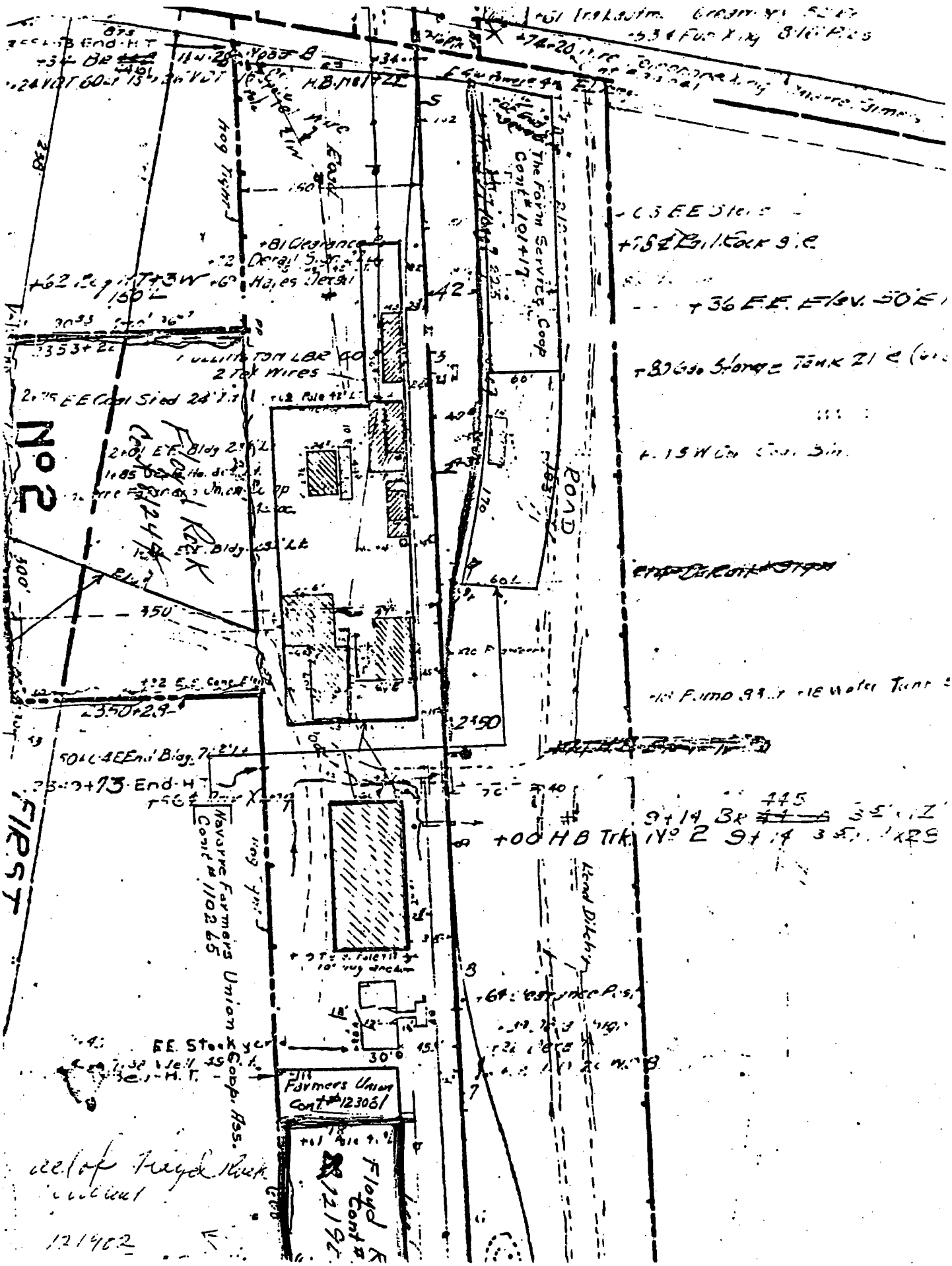
By

Its Assistant to General Manager

COMMODITY CREDIT CORPORATION

By J W Romberger

Its Contracting Officer


Hog Trap
The Farm Service Coop
POND
Flood Rock
No 2
FIRST
Navarre Farmers Union Coop Ass.
Farmers Union
Flood Cont
Head Ditch
Hog Trap

CERTIFICATE OF REINSTATEMENT, RESTORATION, OR RENEWAL

STATE OF KANSAS
COUNTY OF Dickinson } ss.

We, Alvin Sandow, and Warren Rock, being the last acting President, Secretary, or Treasurer of The Navarre Farmers Union Co-op Ass'n, or other officers elected as provided by law, herewith file in behalf of said corporation this certificate for reinstatement, renewal, revival, restoration, and extension of its corporate existence or authority to engage in business in the State of Kansas:

(A) The correct name of the corporation is Navarre Farmers Union Cooperative Association.

(B) The location of the corporate registered office in the State of Kansas is Box 85 (Street and Number) Navarre (Town or City) Dickinson (County)

(C) The name and address of the corporate resident agent in the State of Kansas is Duane Rufener (Name) Navarre (Street and Number) Dickinson (Town or City) (County)

(D) This corporation was duly organized under the laws of the State of Kansas on the 18 day of April, 19 19.

(E) The corporate existence, or authority to engage in business in the State of Kansas:

(1) Has expired, or will expire, by reason of time on the 18 day of April, 1969, and said corporate existence, or authority to engage in business, is hereby extended for a period of fifty years from the 18 day of April, 19 69.

(2) Has been declared canceled by the Charter Board of the State of Kansas because said corporation failed to file its annual report and pay its annual fee provided by law for the year _____.

(3) Has been renewed, but through failure to comply strictly with the provisions of law, the validity of the renewal has been brought into question; hence, the corporate existence, or authority, is hereby extended for fifty years from the _____ day of _____, 19 _____.

(F) This certificate is filed by authority of the duly elected directors or managers of the corporation in compliance with the provisions of Chapter 17, Article 43, G. S. of Kansas, 1949 and all amendments thereto.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed the seal of the corporation this 24 day of February, 19 69.

Alvin Sandow
President.

Warren Rock
Secretary or Treasurer.

(SEAL)

(Complete Jurat on reverse side)

STATE OF Kans.
COUNTY OF McPherson } ss.

Be it remembered, that before me Rueland Lake, a Notary Public in and for the County and State aforesaid, came Alvin Sandstrom and Warren Post, personally known to me to be the persons who executed the foregoing instrument of writing, and duly acknowledged the execution of the same this 26 day of Feb., 1969.

(SEAL)

Rueland Lake
Notary Public.

My commission expires June 28, 1972.

FORM No. 207C

OFFICE OF THE SECRETARY OF STATE

Received of The THE NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

Ten and no/100 Dollars

fee for the renewal, reinstatement or extension of the corporate existence or authority to engage in business in the State of Kansas of said corporation.

Dated this 26th day of February 19 69

Secretary of State.

By

Assistant Secretary of State.

FILED
FEB 26 1969
ELWILL M. SHUCKIAN
SECY. OF STATE

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 21st day of November, 1969, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Kansas corporation (hereinafter called "Lessor"), and THE NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION, a Kansas corporation (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of Dickinson, State of Kansas, outlined in red coloring on the print hereto attached, No. SL-N-375, dated November 5, 1969, marked "Exhibit A" and made a part hereof, for a term beginning on June 19, 1969, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will [illegible] with the use of the Premises by Lessee for the purpose specified in paragraph

3. Lessee shall pay to Lessor as rental for the use of the Premises the sum of Eighty-five and No/100 Dollars ($85.00) per year, payable in advance. Said rental shall be subject to revision at five (5) year intervals.

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same became delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as a site for handling liquid and bulk fertilizer storing of fertilizer equipment and portable unloader.

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary, and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereon, Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders, or regulations of any governmental body having jurisdiction thereover. In the event [illegible]

8. In using the Premises, and in constructing, maintaining, operating and using the Improvements thereon, Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders, or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improvements shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Lessee shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau of Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump houses, warehouses, or other enclosures upon the Premises, where oil or other inflammable fluid supplies are handled or stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation and any other electrical installation upon the Premises shall at all times conform to and be maintained in accordance with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardous locations. Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration or repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authorized to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by law to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take any such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor may sustain, incur or become liable for, including loss of or damage to property or injury to or death of persons and fines or penalties imposed upon or assessed against Lessor, arising in any manner out of (a) the use of the Premises or Improvements by Lessee, (b) any breach by Lessee of the terms, covenants or conditions in this instrument contained, or (c) the sole or contributing acts or omissions of Lessee or the employes, agents, patrons or invitees of Lessee in, on or about the Premises or Improvements, except that if Lessor shall participate in any such contributing acts or omissions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally.

10. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twenty-five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on any railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes or other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any time project or extend in the direction of such track except when crane or device is being used for loading or unloading freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of the rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required, then Lessee shall strictly comply with such statute or order. Irrespective of anything in Section 9 hereof contained, in case of a breach of the obligations contained in this Section 10, or of any of them, Lessee assumes and agrees to indemnify Lessor against all liability for loss, damage, injury and death resulting therefrom, and to reimburse Lessor for any sums which Lessor may have been required to pay in the way of damages, fines, penalties or other expense resulting, in whole or in part, from the failure of Lessee to comply with any of the provisions hereinabove in this Section 10 contained.

11. Neither Lessee, nor the heirs, legal representatives, successors or assigns of Lessee, nor any subsequent assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or transfer this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premises, Lessor shall not be liable to Lessee for any damage of any nature whatsoever, or to refund any rental paid hereunder, except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be due and unpaid, or if default shall be made in any of the covenants or agreements of Lessee herein contained, or in case of any assignment or transfer of this lease by operation of law, Lessor may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver by Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subsequent default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice of termination upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease and determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate part of any rentals paid in advance.

15. Any notice hereunder to be given by Lessor to Lessee shall be deemed to be properly served if it be deposited in the United States mail, postage prepaid, [illegible]

15. Any notice hereunder to be given by Lessor to Lessee shall be deemed to be properly served if it be deposited in the United States mail, postage prepaid, addressed to Lessee at Navarre, Kansas.

Any notice to be given hereunder by Lessee to Lessor shall be deemed to be properly served if the same be deposited in the United States mail, postage prepaid, addressed to Lessor's Superintendent at 201 East Sixth Street, Newton, Kansas 67114.

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Lessor the possession of the Premises and shall remove the Improvements and restore the Premises to substantially the state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (30) days after the date of such termination to make such removal or restoration, then Lessor may, at its election to be exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the account of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilities and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no termination hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improvements are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

20. It is mutually agreed that Rider "A" hereto attached, identified by the signature of D. E. Barnes, is hereby made a part hereof.

RIDER "A"
Attached to Lease Dated November 21, 1969
Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
and
THE NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

21. Lessee agrees that it will at all times, except when in actual use, keep said portable unloader or any portion or appurtenances thereof a distance of not less than six (6) feet from the nearest rail of Lessor's Track No. 1.

22. Notwithstanding anything contained in Section 9 hereof to the contrary, Lessee agrees that it will at all times indemnify and save harmless Lessor against all claims, demands, actions or causes of action, arising or growing out of loss of or damage to property, including but not limited to said portable unloader and appurtenances, and injury to or death of persons, including but not limited to employes of Lessor, resulting in any manner from the maintenance, use, state of repair or presence of said portable unloader upon said premises or upon and adjacent to said Track No. 1, whether such loss, damage, injury or death be caused or contributed to by the negligence of Lessor, its agents or employes, or otherwise, and that it will promptly pay to Lessor the full amount of any loss or damage which Lessor may sustain, incur or become liable for and all sums which Lessor may pay or be compelled to pay in settlement of any claims on account thereof.

23. It is mutually agreed that the agreement dated August 5, 1966, (Santa Fe's Secretary's Contract No. 123081) between the parties hereto relating to use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, is hereby terminated as of the effective date hereof.

Identified By D. E. Barnes

[illegible] Lessor, [illegible] ing in any manner from the maintenance, use, state of repair or presence of said portable unloader upon said premises or upon and adjacent to said Track No. 1, whether such loss, damage, injury or death be caused or contributed to by the negligence of Lessor, its agents or employes, or otherwise, and that it will promptly pay to Lessor the full amount of any loss or damage which Lessor may sustain, incur or become liable for and all sums which Lessor may pay or be compelled to pay in settlement of any claims on account thereof.

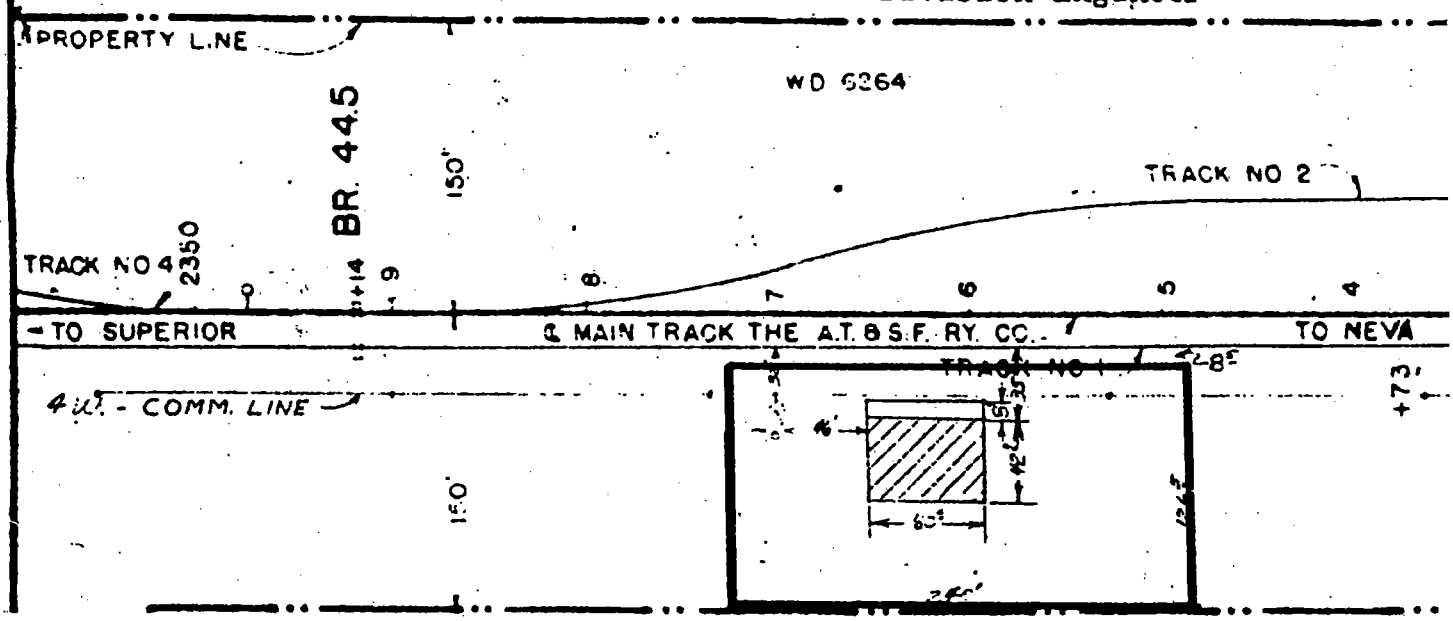
23. It is mutually agreed that the agreement dated August 5, 1966, (Santa Fe's Secretary's Contract No. 123081) between the parties hereto relating to use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, is hereby terminated as of the effective date hereof.

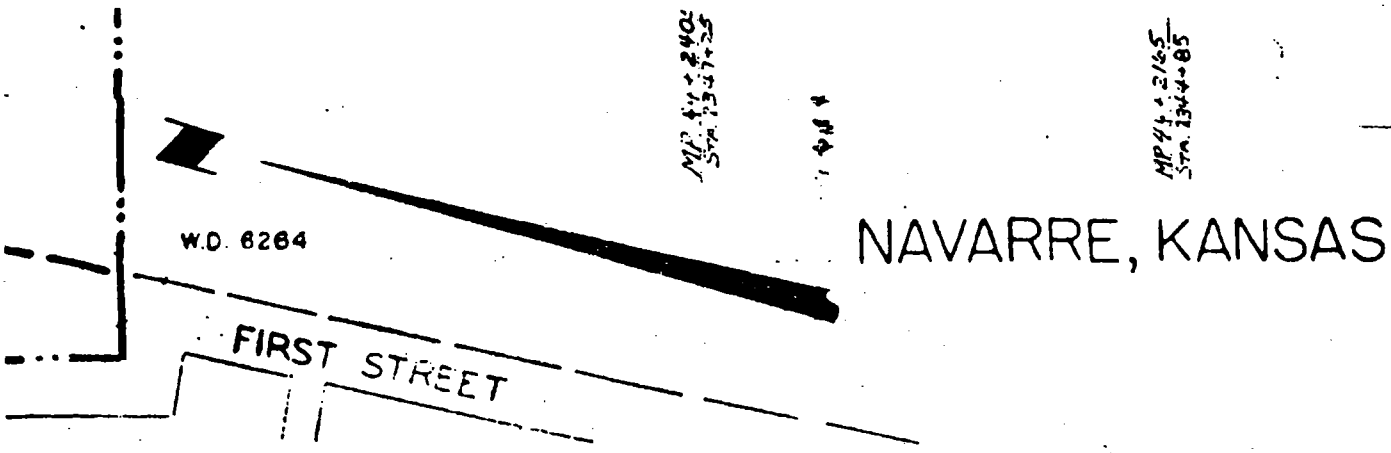
Identified By _____

EXHIBIT "A"
To Contract Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division Strong City District
and
THE NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION
Covering site for handling liquid and bulk fertilizer
and storing of fertilizer equipment at,
Navarre Dickinson County, Kansas
Scale 1" - 100' DEO Newton, Kansas NO. SL-N-375
Dated: November 5, 1969

Identified

Division Engineer

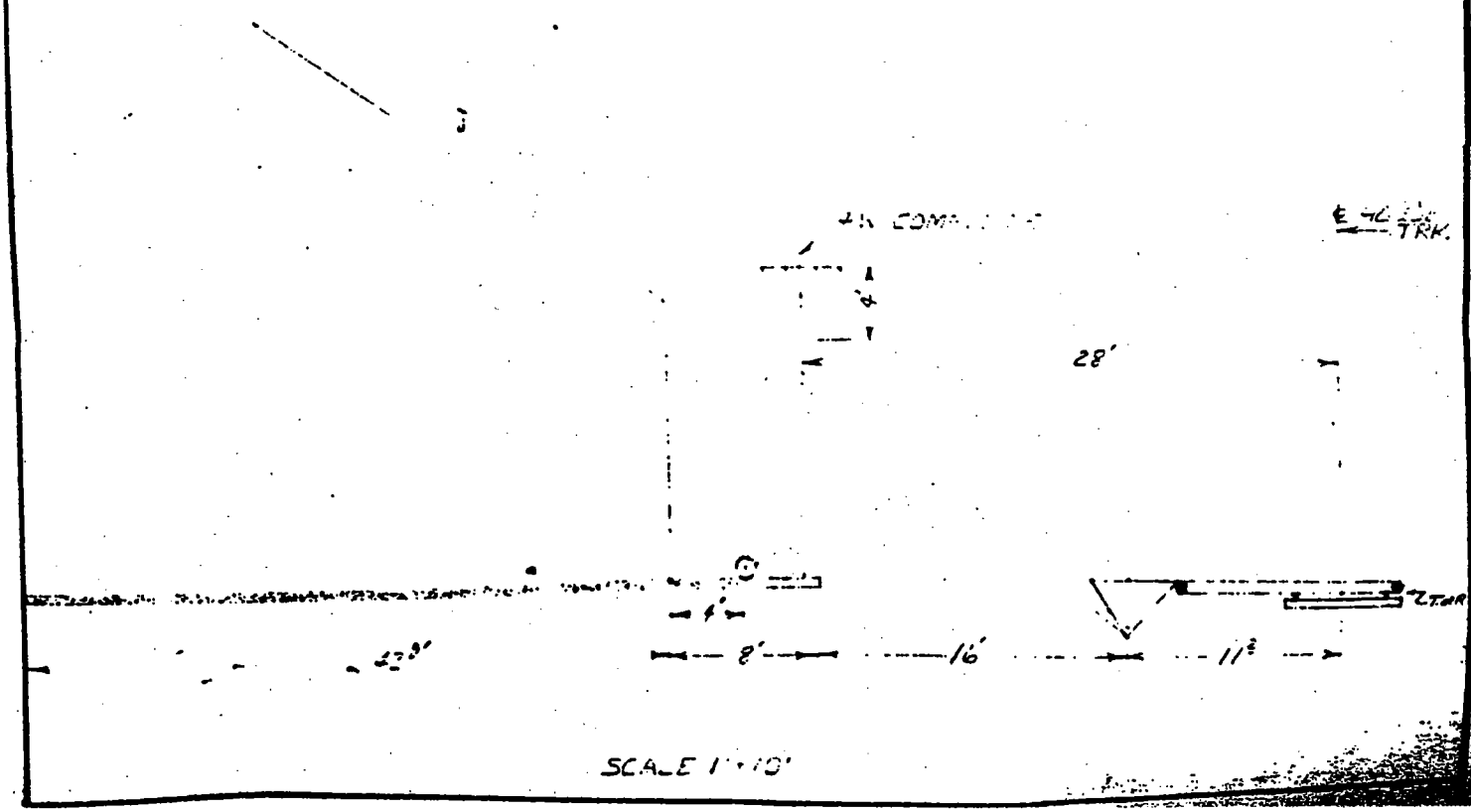




Area of site: 30,360 sq. ft.

DEO Drawing Number SL-[illegible]-375

Correspondence File Number 66-34219



Form 1659-AC Standard

(Approved by General Solicitor)

CONTRACT FOR INDUSTRY TRACK

AGREEMENT, Made ~~this~~ as of the 10th day of December, 19 71 between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY a Delaware corporation, hereinafter called the "Railway Company," party of the first part, and NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION, a Kansas corporation hereinafter (whether one or more persons or corporations) called the "Industry," party of the second part.

RECITALS:—The Industry has requested the Railway Company to operate and maintain a track or track extension, as the case may be, about 378 feet in length, hereinafter in its entirety referred to as "The Track," at or near the station of Navarre, Dickinson County, Kansas to serve a grain, coal and bulk oil handling facility (hereinafter called the "Plant"), to be operated by the Industry. The Track is shown by red coloring upon the print hereto attached, marked "Exhibit A" and made a part hereof.

AGREEMENT:

ARTICLE I.

In consideration of the covenants of the Railway Company, the Industry agrees as follows:

1. That it will and hereby does grant to the Railway Company for the term of this agreement, free of cost, a right of way, eight and one-half (8½) feet on each side of the center line thereof, for all that portion, if any, of The Track located on property belonging to the Industry, with the right to maintain and operate The Track thereon, and where any part of The Track lies on a public street or alley, or upon property belonging to third persons or corporations, that it will secure to the Railway Company by ordinance or grant, as the case may be, in form satisfactory to the Railway Company's counsel, and without cost to the Railway Company, the right to maintain and operate The Track thereon, together with the right to remove the same; in the case of a grant, the right of way shall be eight and one-half (8½) feet on each side of the center line of The Track.

2. That it will pay to the Railway Company, in advance, the estimated cost of

No cost to be borne by the Industry under this section.

the cost so to be paid by the Industry

being hereby estimated at _____ Dollars ($_____). If the actual cost shall be more or less than such estimated cost, the difference shall be promptly paid by the Industry or repaid by the Railway Company, as the case may be.

3. That it will pay to the Railway Company, from time to time, within twenty (20) days after bills are rendered therefor, the entire cost (or an equitable share thereof in case other industries shall be served by The Track or a part thereof, or in case the Railway Company shall make any other use of The Track in the exercise of the right given in Article III, Section 1) of maintaining and renewing that portion of The Track beyond the clearance point, the Railway Company to be the judge of the necessity for and character of maintenance required on The Track. It is understood that the expense of maintaining and renewing The Track shall include any expense to which the Railway Company may be put in the way of paving, sewers, crossing protection or other work, because of the existence of The Track.

4. That it will operate the Plant during the term hereof.

5. The Industry agrees to indemnify and hold harmless the Railway Company for loss, damage or injury from any act or omission of the Industry, its employes or agents, to the person or property of the parties hereto and their employes, and to the person or property of any other person or corporation, while on or about The Track; and if any claim or liability shall arise from the joint or concurring negligence of both parties hereto, it shall be borne by them equally.

6. That it will at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort and will observe an overhead clearance of not less than twenty-five (25) feet above the top of rail; but, nevertheless, the Industry may erect loading platforms which shall not be higher than three (3) feet and six (6) inches above the top of the rails and which at no point shall be nearer than four (4) feet to the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required than those provided for in this Section 6, then the Industry shall strictly comply with such statute or order. In case of a breach of these obligations, or any of them, the Industry assumes and agrees to indemnify the Railway Company against all liability for loss, damage, injury and death arising therefrom and to reimburse the Railway Company for any sums which the Railway Company may have been required to pay in the way of damages, fines, penalties or other expense resulting from the violation by the Industry of any statute or order as aforesaid.

ARTICLE II.

In consideration of the covenants of the Industry, and the faithful performance thereof, the Railway Company subject to the provisions of Sections 2 and 3 of Article I hereof, agrees to maintain The Track during the term of this agreement, unless its obligation so to maintain it may be sooner terminated as herein provided, and to transfer cars, loaded or empty, thereover to and from the Plant subject to any lawful charges that may be imposed by the Railway Company for such transfer.

ARTICLE III.

The parties mutually agree as follows:

1. The title to The Track and to all property furnished in the maintenance thereof shall be in the Railway Company. The Railway Company shall have the right to use The Track for other than the express purpose of serving the Plant.

2. If the Industry shall fail for a period of six (6) months in any period of twelve months to operate the Plant, or shall fail or refuse to comply with or carry out any of the covenants or agreements herein contained, the Railway Company may, at its option, expressed in writing, terminate this agreement; but no termination shall release the Industry from any liability or obligation under this agreement (whether of indemnity or otherwise) resulting from any acts, omissions or events happening prior to the date of termination.

3. Unless earlier terminated as herein provided, this agreement shall be in force for the term of ~~SIX MONTHS~~ ONE MONTH from its date and thereafter until terminated by either party giving to the other ~~six~~ thirty days' written notice of its desire to terminate the same. Upon such or any other termination, the Railway Company shall have the right to remove The Track and every part thereof. This agreement shall also terminate forthwith in the event the Railway Company shall be dispossessed of the right to operate over any privately owned track of which The Track or any part thereof is an extension.

4. Any notice to be given by the Railway Company to the Industry hereunder shall be deemed to be properly served if the same be delivered to the Industry, or if left at the Plant with any of the agents, servants or employes of the Industry, or if posted on the Plant, or if deposited in the postoffice, postpaid, addressed to the Industry at Navarre, Kansas.

5. In the event that the Industry embraces two or more persons or corporations, all the covenants and agreements of the Industry herein shall be the joint and several covenants and agreements of such persons or corporations.

6. All the covenants and provisions of this agreement shall be binding upon the successors, legal representatives and assigns of the Industry to the same extent and effect as the same are binding upon the Industry, and each and every covenant herein shall inure in favor of and run to the successors and assigns of the Railway Company and to each and every person, firm or corporation which may hereafter own or be in possession of or operate the railroad of the Railway Company to the same extent and as fully as though such person, firm or corporation were specifically named in this agreement in the place and stead of the Railway Company; provided, however, no assignment hereof by the Industry, its successors, legal representatives or assigns, or any subsequent assignee, shall be binding upon the Railway Company without the written consent of a Vice-President or a General Manager of the Railway Company in each instance.

as of

IN WITNESS WHEREOF, the parties have executed this agreement in duplicate the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

By [illegible]

Its Assistant to General Manager

Approved:
As to Form

General Attorney.

As to Description

Chief Engineer.

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

By [illegible]

Its President

(Attach print here.)

Form 1659-AC Standard

CONTRACT

FOR

INDUSTRY TRACK

.... Railway Company.

....

.... Industry.

Location ....

Length ....

To Serve .... Plant

Term Six Months from

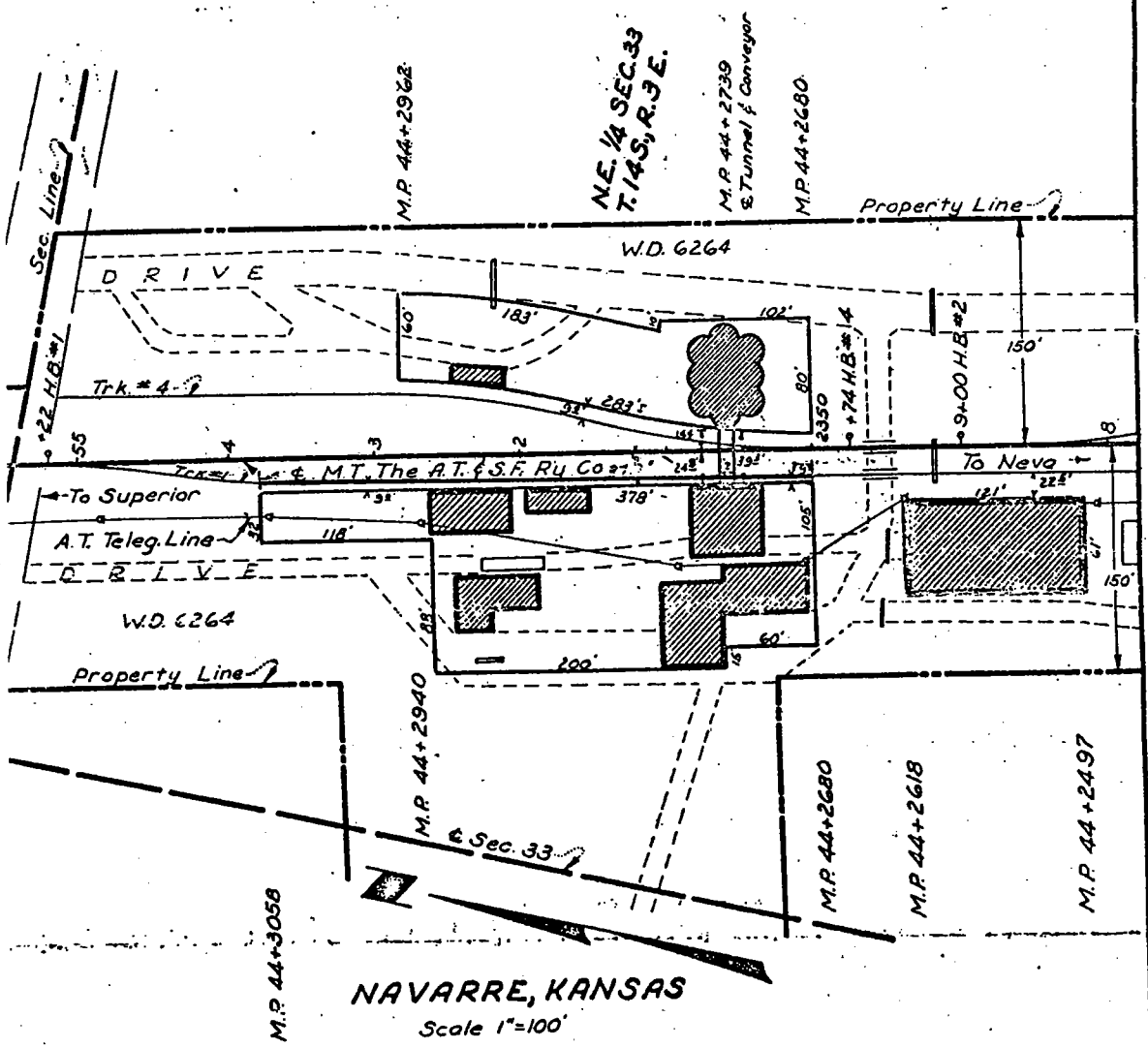
...., 19......

and thereafter until terminated by either party on six months' written notice.

Hall 3 71 3550 4420

EXHIBIT "A"
To Contract Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division Strong City District
and
NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION
Covering industry track at,
Navarre, Dickinson County, Kansas
Scale 1" - 100' DEO Newton, Kansas No. SL-N-409
Dated: August 20, 1970 Identified by

Division Engineer



Description: Track No. 1, 1,787 feet in length, 378 feet being used by industry as shown by red coloring.

DEO Drawing No. SL-N-409
Correspondence File No. 66-34219

The Atchison, Topeka and Santa Fe Railway Company

A Santa Fe Industries Company

201 East Sixth Street
Newton, Kansas 67114
January 14,1974

66-34219

Mr. Duane Rufener, Manager
Navarre Farmers Union Cooperative Association
Navarre, Kansas 67469

Dear Sir:

This has reference to your telephone conversation with my Contract Clerk, Mr. Danby, concerning the possibility of leasing a portion of our right of way at Navarre, presently under lease to Mr. Floyd Rock, for expansion of your facilities for construction of a new office and scale.

Upon checking our records, we find that we have three contracts with Mr. Floyd Rock at Navarre; in view of which, I am not just sure of which property you are referring to; however, am attaching a print from portion of our station grounds which I believe includes the area in which you are interested.

Will you please indicate on the sketch the area desired by Navarre Farmers Union Cooperative and return the sketch for further consideration.

Yours truly,

E. Gillmore

E. Gillmore
Superintendent

221

Mr Barnes

JOINT TENANCY QUIT CLAIM DEEL ollowing Kansas Statutory Form)

Tract 7 TL BC 14
Entered in Transfer Record in my office this
14th day of Marchmonth A.D. 1973
Clerk.
By Muriel Fleming

Tora G. Rock, a widow; Clayton R. Rock and Lucille B. Rock, his wife; Phyllis Hasselman and Eddie Hasselman, her husband; Camren R. Dalton, a single person, and Teresa Ann Dalton, a single person,

QUIT CLAIM TO

Simon M. Sheets and Leona L. Sheets, husband and wife,

as JOINT TENANTS and not as tenants in common, with full rights of survivorship, the whol estate to vest in the survivor in the event of the death of either, all the following described REA ESTATE in the County of Dickinson

and the State of Kansas, to-wit:

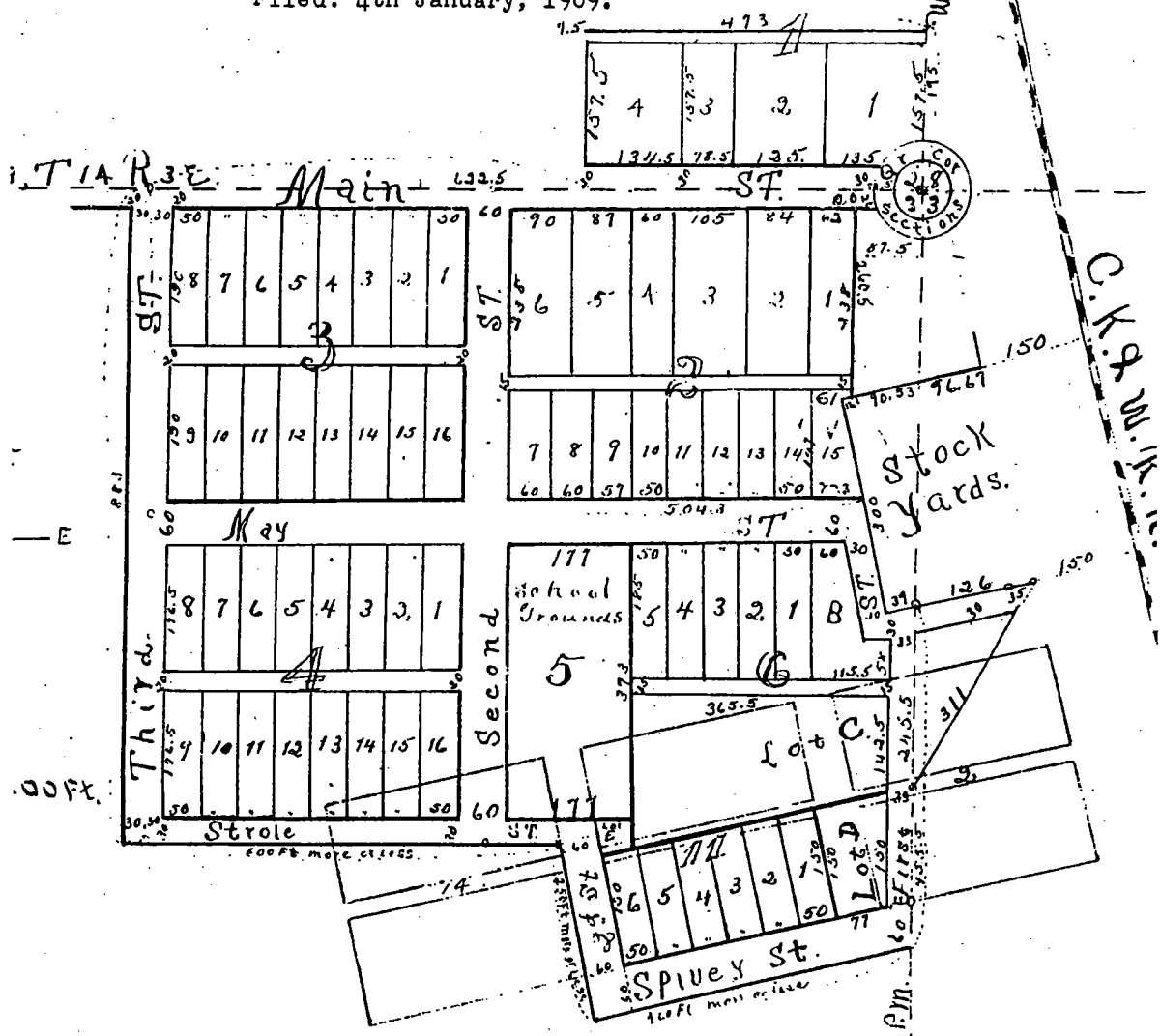
Commencing on the North line of Section Thirty-three (33), Township Fourteen (14) South, Range Three (3) East of the 6th P. M., at a point where said line intersects the west line of the right-of-way of the Chicago, Kansas and Western Railroad, running thence west eighty-five feet (85'); thence south to the north line of the Stockyards of said railroad; thence east to the west line of the right-of-way of said railroad; thence northwesterly along the west line of the right-of-way of said railroad to the place of beginning.

for the sum of One Dollar ($1.00) and other valuable consideration. (Gift, in connection with sale of home. Above tract is small surplus footage of nominal value.)

Tora G. Rock
Tora G. Rock
Clayton R. Rock

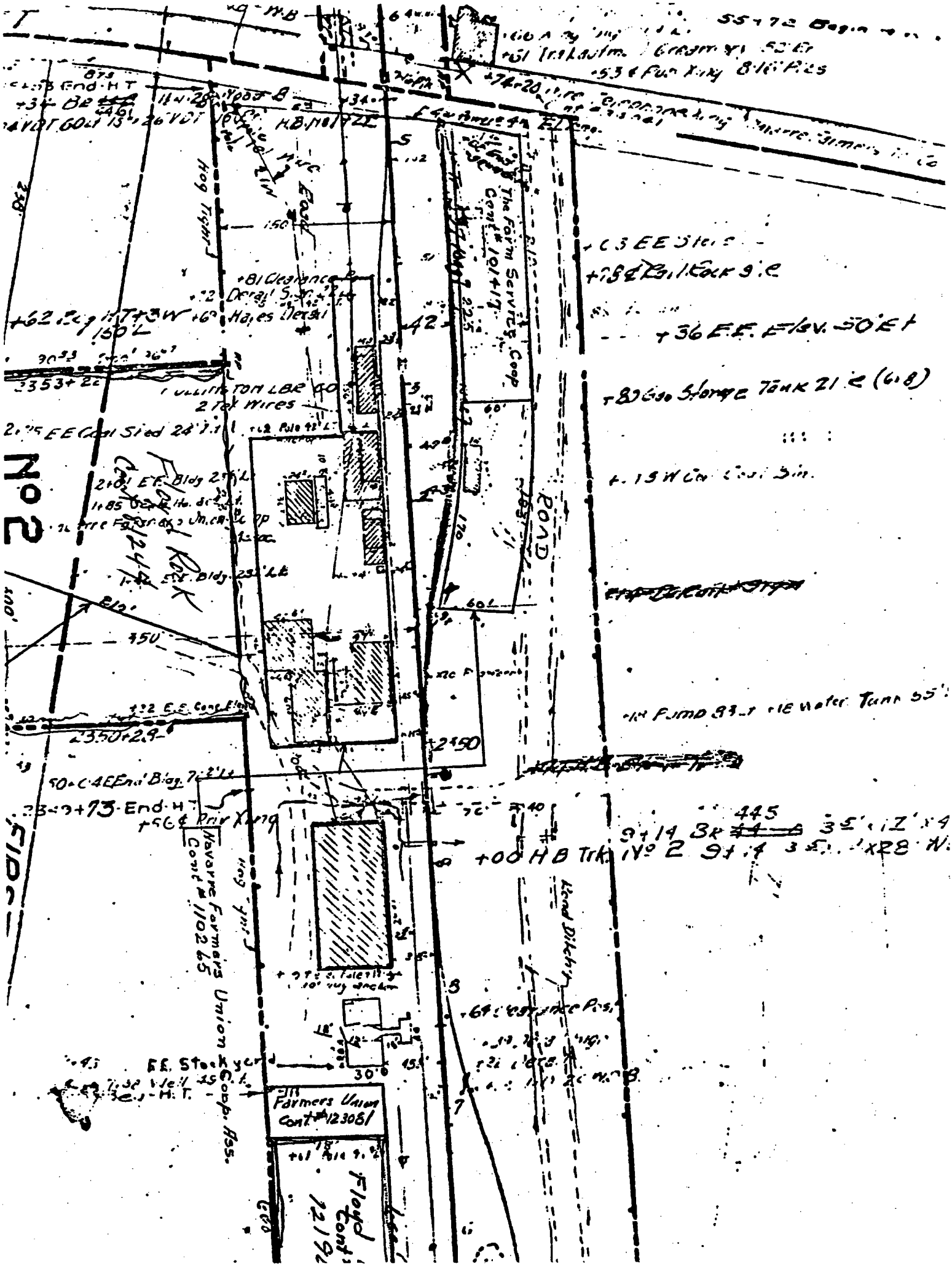
NEW NAVARRE

Plat Book C Page 21
Filed: 4th January, 1909.



Vacation of Lot "C" in Block 6 and Block 11 of Dickinson County, Kansas and Spivey street south of Block 11, and second street lying east of Block 11.

See Record see MR 86 page 41


Hog Tight
Fence
The Farm Service Coop
Cont 101417
Pond
Hayes Dental
Cleanance
Gas Storage Tank 21 ℄ (6.8)
Fullerton Lbr Co
2 Tel Wires
Flat Rock
No 2
Water Tank
Pond Dikes
Wavarre Farmers Union Coop Ass.
Cont # 110265
Farmers Union
Cont # 123081
Floyd
Cont
End H.T.
Prir X'ing
HB Trk No 2
445

D-6615

CERTIFICATE OF AMENDMENT TO ARTICLES OF INCORPORATION OF

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

STATE OF KANSAS,
County of Dickinson } ss.

APR -4 3 04000 ****2

We, Marvin Strunk, President, and Dale Kauffman,

Secretary of Navarre Farmers Union Cooperative Association

a corporation organized and existing under the laws of the State of Kansas, and whose registered office is

(Street and Number) Navarre (Town or City) Dickinson (County)

Kansas, do hereby certify that at the Regular (Regular or Special) meeting of the Board of Directors of said corporation held on the 9th day of January, 1975, said board adopted a resolution setting forth the following amendment to the Articles of Incorporation and declared its advisability, to wit:

RESOLVED, that Article VI of the Articles of Incorporation be changed to read as follows:

SIXTH

That the amount of the capital stock of this corporation shall be five hundred thousand dollars ($500,000) and shall be divided into fifty thousand (50,000) shares of common stock of the par value of $10 per share.

'75 APR 7 PM 4:14
FILED
SECRETARY OF STATE
KANSAS

That thereafter, pursuant to said resolution and in accordance with the by-laws and the laws of the State of Kansas, said directors called a meeting of stockholders for the consideration of said amendment, and thereafter, pursuant to said notice and in accordance with the statutes of the State of Kansas, on the 27th day of January, 1975, said stockholders met and convened and considered said proposed amendment.

That at said meeting the stockholders entitled to vote did vote upon said amendment, and the majority of voting stockholders of the corporation had voted for the proposed amendment certifying that the votes were 59 (By class or classes) shares in favor of the proposed amendment and 8 (By class or classes) shares against the amendment.

That said amendment was duly adopted in accordance with the provisions of K. S. A. 1972 Supp. 17-6602.

That the capital of said corporation will not be reduced under or by reason of said amendment.

IN WITNESS WHEREOF we have hereunto set our hands and affixed the seal of said corporation this 2nd day of April 1975

[SEAL]

Marvin M. Strunk
President or Vice-President.

Dale Kauffman

STATE OF KA. .S,

County of DICKINSON } ss.

Be it remembered, that before me Duane. W. Kaufman a Notary Public in and for the County and State aforesaid, came Marvin Sinook President, Vice-President and Dale Kaufman Secretary, Assistant Secretary of Havana Farmers Union Co-op a corporation, personally known to me to be the persons who executed the foregoing instrument of writing as President and Secretary respectively, and duly acknowledged the execution of the same this 22nd day of April 19 75

Duane W. Kaufman
Notary Public.

My commission expires April 28 19 76

DUANE W. KAUFMAN NOTARY PUBLIC DICKINSON CO. KS.

205C

Submit in this office in duplicate.

A fee of $20.00 must accompany this form.

Form 1616 Standard
(Approved by General Solicitor)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 25th day of April, 19 75, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY a Delaware corporation (hereinafter called "Lessor"), and THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION, a Kansas corporation (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of DICKINSON, State of Kansas, outlined in red coloring on the print hereto attached, No. SL-N-444, dated February 19, 1975, marked "Exhibit A" and made a part hereof, for a term beginning on May 1, 19 75, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will not unreasonably interfere with the use of the Premises by Lessee for the purpose specified in paragraph 6 hereof.

3. Lessee shall pay to Lessor as rental for the use of the Premises the sum of Five Hundred Forty and No/100 Dollars ($ 540.00) per year, payable in advance. Said rental shall be subject to revision at ~~five (5)~~ three (3) year intervals.

4. Lessee covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same became delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as ~~a site for~~ sites for handling liquid and bulk fertilizer and storing of fertilizer equipment.

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary, and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

15. Any notice hereunder to be given by Lessor to Lessee shall be deemed to be properly served if it be deposited in the United States mail, postage prepaid, addressed to Lessee at _____ Navarre, Kansas _____

Any notice to be given hereunder by Lessee to Lessor shall be deemed to be properly served if the same be deposited in the United States mail, postage prepaid, addressed to Lessor's _____ Superintendent _____ at Newton, Kansas 67114 _____

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Lessor the possession of the Premises and shall remove the Improvements and restore the Premises to substantially the state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (30) days after the date of such termination to make such removal or restoration, then Lessor may, at its election to be exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the account of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises, upon any termination of this lease, all the liabilities and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no termination hereof shall release Lessee from any liability or obligation hereunder, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improvements are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as hereinabove in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

20. It is mutually agreed that Rider "A" hereto attached, identified by the signature of D. E. Barnes, is hereby made a part hereof.

RIDER "A"
To Lease Dated April 25, 1975
Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
and
THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION

21. That in the use of the Premises, Lessee shall exercise utmost and extraordinary diligen
o the end that no damage shall occur to Lessor's communication line located upon the Premises,
nd Lessee hereby agrees to pay Lessor within twenty (20) days after rendition of bill therefor
he entire cost of repairing any damage to said communication line resulting in any manner from
r in connection with Lessee's use of the Premises.

22. Notwithstanding anything contained in Section 9 hereof to the contrary, Lessee may, at
ts sole cost and expense and in a manner satisfactory to Lessor, construct, install, use and
aintain an overhead screw conveyor and walk, portable unloader, and an underground tunnel and
ppurtenances over, under and adjacent to Lessor's tracks in the location indicated and in ac-
ordance with the general design shown on said Exhibit "A" in such a manner and of such materia
s will not at any time be a source of danger to or interference with or the safe operation of
essor's railroad. During construction, installation, use or repairing of said tunnel and/or
verhead screw conveyor and walk, portable unloader and appurtenances, Lessee shall exercise
tmost and extraordinary diligence to prevent damage to property of Lessor or injury to its age
r employes. If at any time during the term hereof, Lessor shall desire to make any use of its
roperty with which said tunnel and/or overhead screw conveyor, walk, portable unloader and
[illegible] Lessee shall, at Lessee's sole cost, within thirty (30

RIDER "A"
To Lease Dated April 25, 1975
Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
and
THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION

21. That in the use of the Premises, Lessee shall exercise utmost and extraordinary diligence the end that no damage shall occur to Lessor's communication line located upon the Premises, Lessee hereby agrees to pay Lessor within twenty (20) days after rendition of bill therefor, entire cost of repairing any damage to said communication line resulting in any manner from in connection with Lessee's use of the Premises.

22. Notwithstanding anything contained in Section 9 hereof to the contrary, Lessee may, at sole cost and expense and in a manner satisfactory to Lessor, construct, install, use and intain an overhead screw conveyor and walk, portable unloader, and an underground tunnel and urtenances over, under and adjacent to Lessor's tracks in the location indicated and in ac-dance with the general design shown on said Exhibit "A" in such a manner and of such material will not at any time be a source of danger to or interference with or the safe operation of ssor's railroad. During construction, installation, use or repairing of said tunnel and/or erhead screw conveyor and walk, portable unloader and appurtenances, Lessee shall exercise most and extraordinary diligence to prevent damage to property of Lessor or injury to its agent employes. If at any time during the term hereof, Lessor shall desire to make any use of its operty with which said tunnel and/or overhead screw conveyor, walk, portable unloader and purtenances will in any way interfere, Lessee shall, at Lessee's sole cost, within thirty (30) ys after receiving written notice from Lessor to such effect, make such changes in said tunnel d/or overhead screw conveyor, walk, portable unloader and appurtenances as in the judgment Lessor may be necessary to avoid interference with the proposed use of its property, and, ssee failing so to do within said thirty-day period, Lessor may make such changes at Lessee's pense.

23. Notwithstanding anything contained in Section 10 hereof to the contrary, Lessee agrees hat it will at all times indemnify and save harmless Lessor against all claims, demands, action r causes of action, arising or growing out of loss of or damage to property including said unnel and/or overhead screw conveyor, walk, portable unloader and appurtenances or injury to or eath of persons, including employes of Lessor, resulting in any manner from the construction, nstallation, maintenance, use, state of repair or presence of said tunnel and/or or overhead crew conveyor, walk, portable unloader and appurtenances under, over or adjacent to said racks whether such loss, damage, injury or death be caused or contributed to by the negligence f Lessor, its agents or employes, or otherwise, and that it will promptly pay to Lessor the full amount of any loss or damage which Lessor may sustain, incur or become liable for and all sums which Lessor may pay or be compelled to pay in settlement of any claims on account thereof.

24. Lessee agrees that it will at all times, except when in actual use, keep said portable unloader or any portion or appurtenances thereof a distance of not less than six (6) feet from the nearest rail of Lessor's Track No. 1.

25. It is mutually agreed that the agreement dated January 22, 1962, (Lessor's Secretary's Contract No. 114732) between the parties hereto, relating to use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, as sites for elevators, coal bins, bulk oil station warehouse, buildings, tunnel, conveyor and overhead walk, as modified by Supplemental Agreement dated November 29, 1971 increasing the compensation to $145.00 per year, is hereby terminated a of the effective date hereof.

26. It is mutually agreed that the agreement dated November 21, 1969, (Lessor's Secretary' Contract No. 133460) between the parties hereto, relating to use of a portion of Lessor's property at Navarre, Dickinson County, Kansas, as a site for handling liquid and bulk fertilizer, storing of fertilizer equipment and portable unloader, is hereby terminated as of the effectiv date hereof.

Identified by K. E. Barnes

the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessor)

Approved as to description:

By _____

Its Assistant to General Manager

_____
Chief Engineer.

THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION

By _____

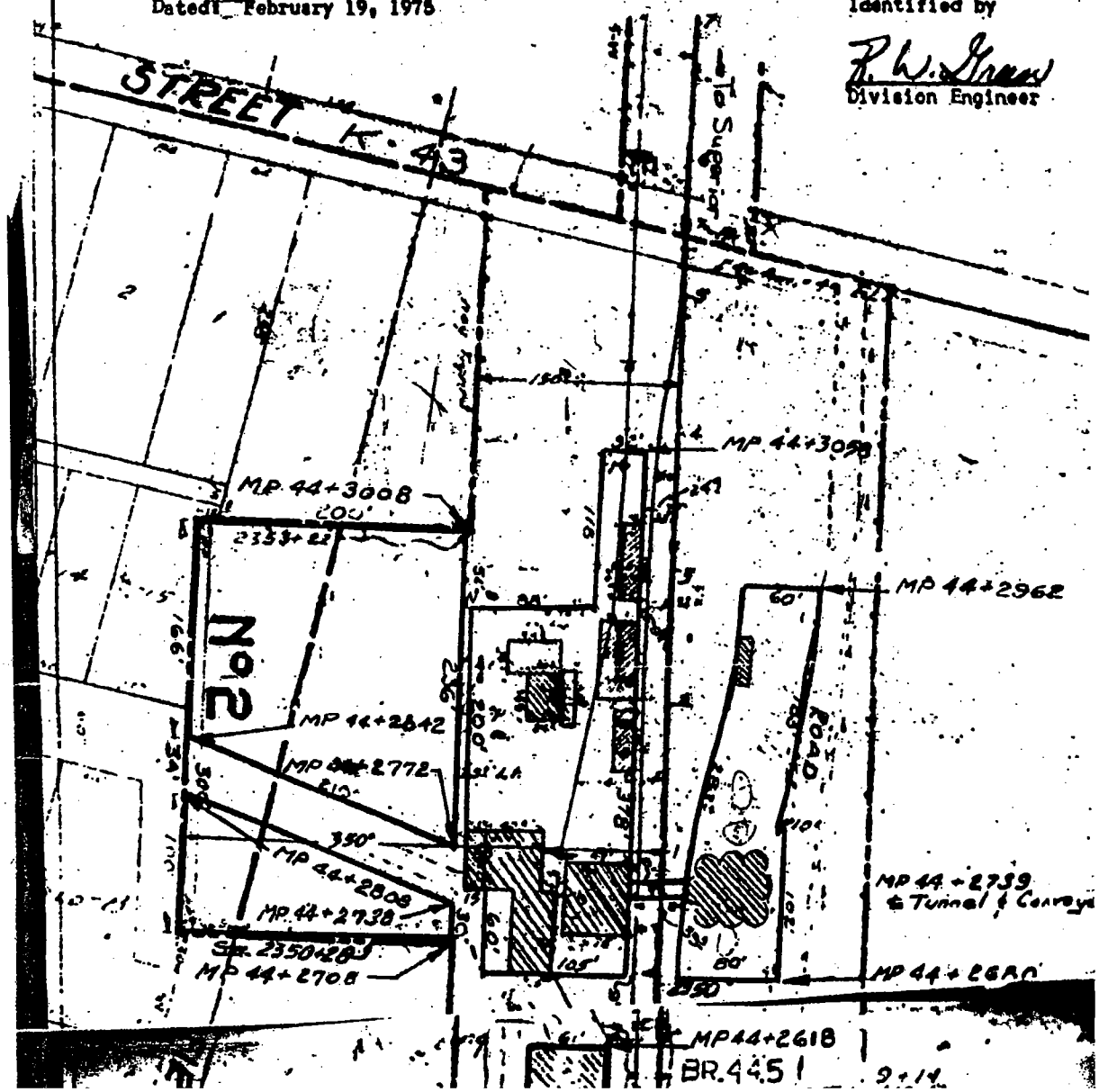
Its President (Lessee).

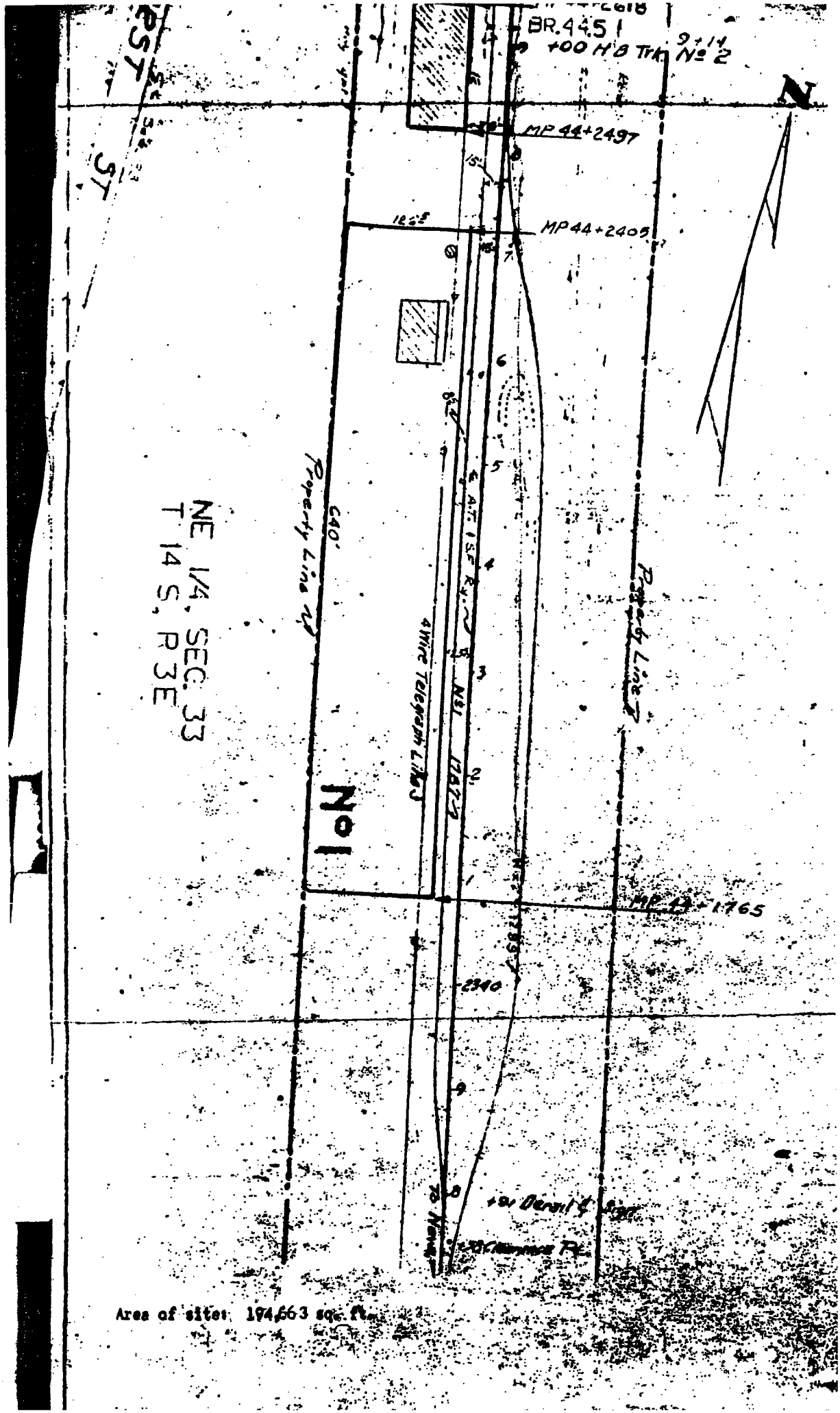
EXHIBIT "A"
To Contract Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division Strong City District
and
THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION
Covering sites for handling liquid and bulk fertilizer and storing of fertilizer equipment at
Navarre, Dickinson County, Kansas
DEO Newton, Kansas

Scale 1" = 100'
Dated February 19, 1975

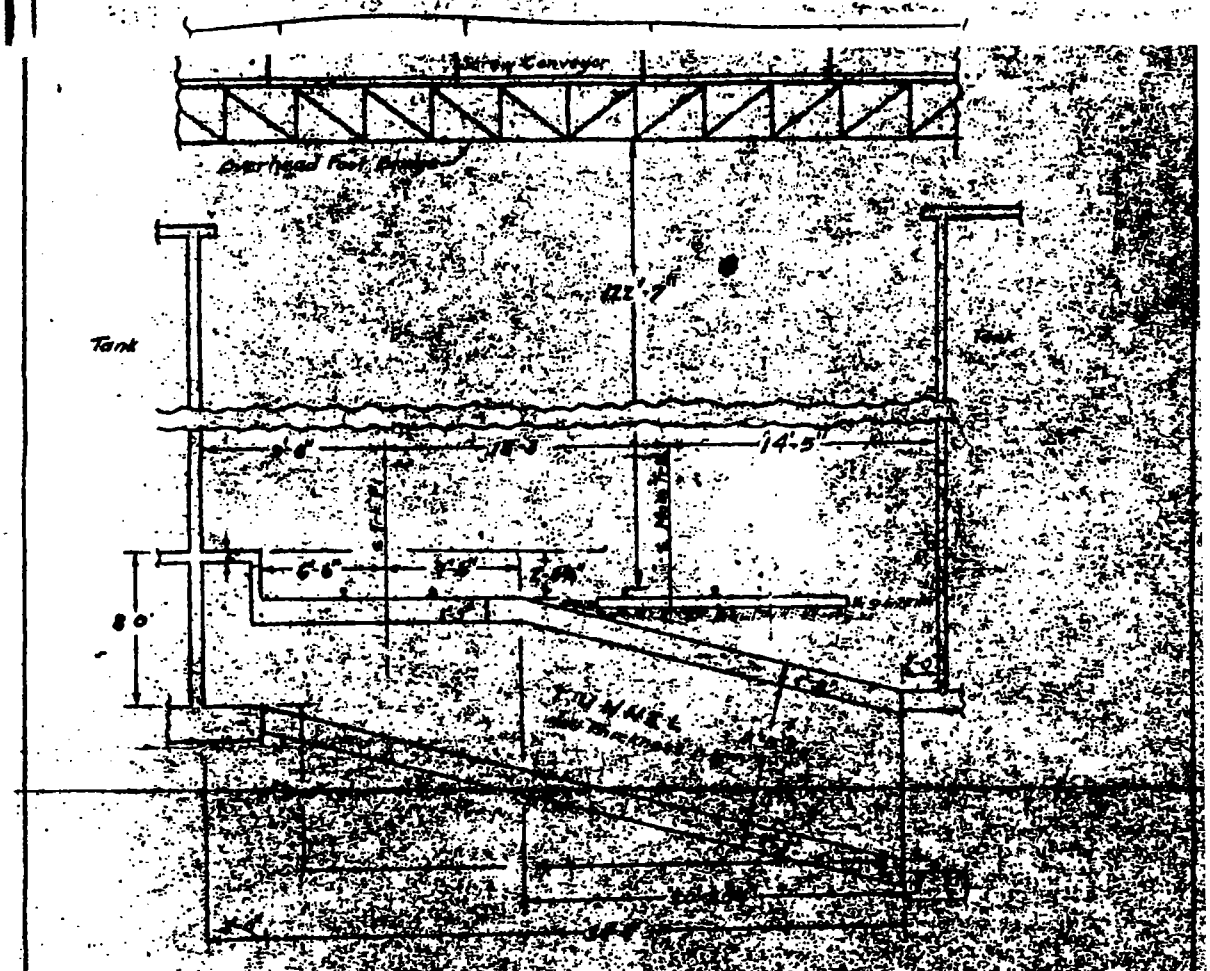
No. SL-N-444
Identified by

R. W. Green
Division Engineer

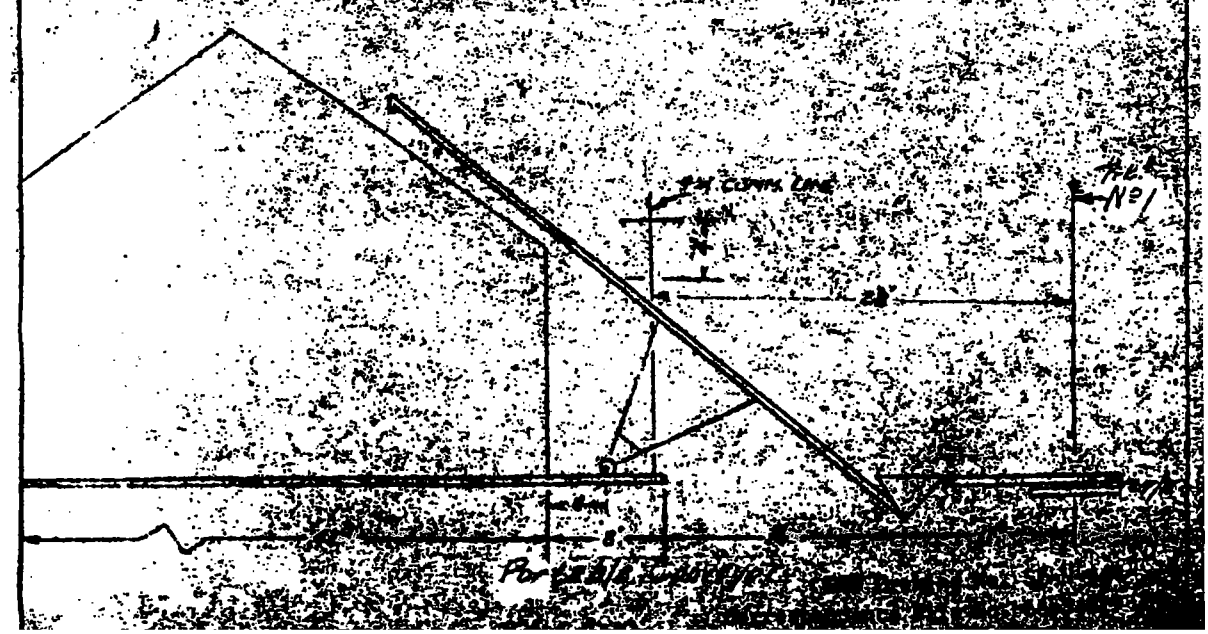



BR. 44.51
+00 H B Trk
9+14
No 2
N
MP 44+2497
MP44+2405
Property Line
640'
Property Line
NE 1/4, SEC. 33
T 14 S, R 3E
No 1
4 Wire Telegraph Lines
N&I
MP 43+1765
-2340
Area of site: 194,663 sq. ft.

Area of site: 194,663 sq. ft.



SECTION THRU TUNNEL & SIDE VIEW OF OVERHEAD WALK & CONVEYOR



The Atchison, Topeka and Santa Fe Railway Company
A Santa Fe Industries Company
P.O. Box 1738, 900 Jackson Street, Topeka, Kansas 66628
Telephone 913/235-0041
Ext. 4224

July 15, 1975

E-44391-F

The Navarre Farmers Union Co-Operative Association
Navarre, Kansas

Gentlemen:

This has reference to your request to revise your lease area at Navarre, Kansas, as covered by our Secretary's Contract Nos. 114732 and 133460, and include additional area, making a revised total square footage of 194,663 square feet of space.

As previously advised, we are agreeable to leasing the 194,663 square feet of space to you at a rental of $540.00 per year, effective May 1, 1975, and enclosed, in duplicate, is our Lease of Land, Form 1616, to cover, which agreement also provides for mutual termination of Contract Nos. 114732 and 133460.

Please have the document executed by the President or a Vice President of your firm in the space provided, retaining the duplicate copy for your records and returning the copy marked "Santa Fe Original" to this office.

We are notifying our Audit office to revise billing under Contract Nos. 114732 and 133460, prorated to the date of the new lease agreement, which you should receive shortly.

Yours truly,

C. R. Rose
Assistant General Manager

JED/nm

A G R E E M E N T

THIS AGREEMENT, Made and entered into in triplicate as of the 30th day of January, 19 76, by and between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Delaware corporation with offices at Topeka, Kansas, hereinafter called "Railroad"; FARMLAND INDUSTRIES, INC., a Kansas corporation with offices in Kansas City, Missouri, hereinafter called "Farmland"; and THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION, a Kansas corporation with offices at Navarre, Kansas, hereinafter called "Coop".

WITNESSETH THAT:

WHEREAS, Railroad permitted Coop to use certain premises at Navarre, Dickinson Co., Ks., under the terms of an agreement dated April 25, 1975, identified in the records of Railroad as Secretary's No. 147780, and

WHEREAS, Farmland has entered into an agreement with Coop for the installation and rental on said Premises of one 30,000 gallon anhydrous ammonia storage tank(s).

NOW THEREFORE, in consideration of the premises, the parties hereto agree as follows:

1. Farmland may install the aforesaid tank(s) on said premises.

2. Ownership of such tank(s) shall be and remain in Farmland at all times as personal property regardless of how attached to the land.

3. Railroad assumes no liability in connection with the installation, maintenance, operation or presence of the tank(s) upon said premises and shall not be responsible for any damage thereto regardless of the cause of such damage. Nothing contained in this agreement shall be construed to release Coop from any of its obligations, including but not limited to liability under provisions of said agreement dated April 25, 1975.

4. Farmland may remove said tank(s) at any time prior to the termination of said agreement dated April 25, 1975, and in the event of termination thereof, agrees to remove said tank(s) from said premises within thirty days after being given written notice of such termination. In event

Farmland fails to remove the tank(s) within thirty days after notice of termination, then Railroad may, at its option, remove the tank(s) from said premises at cost of Farmland or may take and hold the tank(s) as its sole property. In such event, Coop shall remain liable to the Railroad for any damages to the premises or for failure to restore said premises to its original condition.

5. Neither Farmland nor Coop, nor their legal representatives, successors or assigns shall assign or transfer this agreement or any right or interest therein, without the written consent and approval of Railroad in each instance.

IN WITNESS WHEREOF, the parties hereto have duly executed this agreement in triplicate as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

By _____

Its Assistant to General Manager

FARMLAND INDUSTRIES, INC.

By _____

Its President

THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION

By X _____

Its President

SUPPLEMENTAL AGREEMENT, made as of this 14th day of March, 19 78, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Delaware corporation, hereinafter referred to as "Santa Fe"), and THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION, a Kansas corporation

hereinafter, whether one party or more, referred to as "Second Party".

R E C I T A L S:

Santa Fe and Second Party are now parties to a contract dated April 25, 1975, Santa Fe's Secretary's Contract No. 147780, together with any and all modifications, supplements and amendments thereto, being hereinafter referred to as "Original Contract", under which Second Party pays Santa Fe a compensation of $ 540.00 per year for the use of a portion of Santa Fe property at or near Navarre, Dickinson County, Kansas as ~~a site for~~ sites for handling liquid and bulk fertilizer and storing of fertilizer equipment.

The parties desire to modify the Original Contract as hereinafter provided.

A G R E E M E N T:

IN CONSIDERATION of the sum of $1.00, and other consideration, the receipt and sufficiency of which are hereby acknowledged by Second Party, it is mutually agreed that effective May 1, 1978, the compensation section of the Original Contract is hereby changed to read, as follows:

> "Second Party shall pay to Santa Fe on or before the first day of each period of one year during the continuance of this contract as compensation for the use of the Premises for such period the sum of $ 1,000.00. Santa Fe may revise the amount of such yearly compensation after the end of each three (3) year period during which this contract may remain in effect, and without affecting the right of either party hereto to terminate this contract at any time as may be provided elsewhere herein."

IN WITNESS WHEREOF, the parties hereto have executed this Supplemental Agreement in duplicate as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

IT IS MUTUALLY AGREED that as of the effective date hereof, the provisions of Rider "A" attached hereto, identified by the signature of D. E. Barnes, are hereby made a part of the Original Contract.

By _____

Its Assistant to General Manager

THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATIC

By Phil Bryant

Its President

(Second Party)

RIDER "A"
Attached to agreement dated March 14, 1978
Between
THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

and

THE NAVARRE FARMERS UNION CO OPERATIVE ASSOCIATION

27. Notwithstanding any other provision of this lease, Lessee shall comply with all environmental statutes, ordinances, rules, regulations, orders and decisions (hereinafter referred to as "Standards"), issued by any federal, state or local governmental body or agency established thereby (hereinafter referred to as "Authority"), relating to Lessee's use of the Premises. Lessee shall maintain the Premises in full compliance with all Standards set by any Authority, including, but not limited to, Standards concerning air quality, water quality and noise. In the event Lessee fails to maintain the Premises according to the Standards set by any Authority, Lessor may, after giving reasonable notice of the failure to Lessee, take whatever action is necessary to bring the Premises into compliance. Lessee shall reimburse Lessor for all costs (including, but not limited to, consulting, engineering and legal costs) incurred by Lessor in bringing the Premises into compliance with such Standards, and also all such costs incurred by Lessor in abating a violation of such Standards, protecting against a threatened violation of such Standards, defending any claim of violation of such Standards in any proceeding before any Authority or court, and paying any fines or penalties imposed for such violations. Lessee shall further indemnify and save harmless Lessor from any claim of a violation of such Standards regardless of the nature thereof or the Authority or person asserting such claim, which results from Lessee's use of the Premises, whether such claim arises in whole or in part from the negligence of the Lessor or otherwise. Lessee at its cost, shall assume the defense of all such claims regardless of whether they are asserted against Lessee or Lessor.

Identified By D E Barnes

The Atchison, Topeka and Santa Fe Railway Company

A Santa Fe Industries Company

P.O. Box 1738, 900 Jackson Street, Topeka, Kansas 66628

Telephone 913/235-0041

March 21, 1978

E-44391-F

The Navarre Farmers Union
Co-Operative Association
Navarre, Kansas 67469

Gentlemen:

You are a party to an agreement dated April 25, 1975 with The Atchison, Topeka and Santa Fe Railway Company, and identified in Santa Fe's records as Contract No. 147780, covering your use of a portion of our property at Navarre, Kansas as a site for handling liquid and bulk fertilizer and storing of fertilizer equipment.

We have made review of this contract and now find it necessary to revise the compensation, and are attaching, in duplicate, Supplemental Agreement to the above contract, which revises the compensation to $1,000.00 per year effective May 1, 1978.

Please have the document executed by the President or a Vice-President of your firm, clearly indicating correct spelling of that officer's name, returning the copy marked "Santa Fe Original" to this office.

Yours truly,

C. R. Rose

C. R. Rose
Assistant General Manager

DJH:lr

SUPPLEMENTAL AGREEMENT, made as of this 9th day of April, 1981, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY, a Delaware corporation (hereinafter referred to as "Santa Fe"), and THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCATION, a Kansas corporation, (hereinafter, whether one party or more, referred to as "Second Party").

R E C I T A L S:

Santa Fe and Second Party are now parties to a contract dated April 25, 1975, Santa Fe's Secretary's Contract No. 147780, together with any and all modifications, supplements and amendments thereto, being hereinafter referred to as "Original Contract", under which Second Party pays Santa Fe a compensation of $1,000.00 per year for the use of a portion of Santa Fe property at or near Navarre, Dickinson County, Kansas, as sites for handling liquid and bulk fertilizer and storing of fertilizer equipment.

The parties desire to modify the Original Contract as hereinafter provided.

A G R E E M E N T:

IN CONSIDERATION of the sum of $1.00, and other consideration, the receipt and sufficiency of which are hereby acknowledged by Second Party, it is mutually agreed that effective May 1, 1981, Section 3 of the Original Contract is hereby changed to read, as follows:

> "3. Second Party shall pay to Santa Fe on or before the first day of each period of one year during the continuance of this contract as compensation for the use of the Premises for such period the sum of $1,355.00. Santa Fe may revise the amount of such yearly compensation after the end of each three (3) year period during which this contract may remain in effect, and without affecting the right of either party hereto to terminate this contract at any time as may be provided elsewhere herein."

Section 14 of the Original Contract is hereby deleted and the following substituted therefor:

> "14. This contract may be terminated at any time by either party upon thirty (30) days' notice in writing to be served upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this contract and all rights of Second Party hereunder shall absolutely cease and determine; but upon any termination of this contract, Santa Fe shall retain as a minimum charge for the use

of Santa Fe's property a sum of $ 240.00 and any rental in excess of said sum shall be apportioned between the parties, and Santa Fe hereby agrees to refund to Second Party a proportionate part of any such excess amount paid in advance."

IN WITNESS WHEREOF, the parties hereto have executed this Supplemental Agreement in duplicate as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

By E. Sullman

Its Assistant to General Manager

THE NAVARRE FARMERS UNION CO-OPERATIVE ASSOCIATION

By Ward W. Wiley

Its President

The Atchison, Topeka and Santa Fe Railway Company

A Santa Fe Industries Company

P.O. Box 1738, 900 Jackson Street, Topeka, Kansas 66628

Telephone 913/235-0041

Ext. 4826

April 21, 1981

E-44391-F

The Navarre Farmers Union Co-Operative Association
Navarre, Kansas 67469

Gentlemen:

You are a party to an agreement dated April 25, 1975 with The Atchison, Topeka and Santa Fe Railway Company, and identified in Santa Fe's records as Contract No. 147780, covering sites for handling liquid and bulk fertilizer and storing of fertilizer equipment at Navarre, Dickinson County, Kansas.

We have made review of this contract and now find it necessary to revise the compensation, and are attaching, in duplicate, Supplemental Agreement to the above contract, which revises the compensation to $1,355.00 per year, effective May 1, 1981.

Please have the document executed by the President or a Vice President of your firm, clearly indicating correct spelling of that officer's name, returning the copy marked "Santa Fe Original" to this office.

Yours truly,

H. J. Briscoe

H. J. Briscoe
General Manager

LMR bjt 169

00460159

COOP MKT

State of Kansas/Not For Profit

Form NP

Corporate Annual Report

1. Tax Closing Date 10-31-91

2. State of Incorporation Kansas

In this box, enter the exact corporation name and mailing address. If a preprinted name and address is shown, correct if necessary.

DOC. 6615

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

BOX 85

NAVARRE, KS 67469

Do not write in this space.

000001 10 2863 12-26-91
CORPORATION A/R
0066157 050 5.00
40 TRANS TOTAL

(Complete all items or make corrections to existing information in the space provided below.)

3. Officers	Name	Residential Address	City, State, Zip Code	Director Y/N
Pres.	David Baler, Jr.	Route 2	Abilene, KS 67410	x
Sec.	Gregg Beemer	Route 2	Abilene, KS 67410	x
Treas.	Gregg Beemer	Route 2	Abilene, KS 67410	x

4. Board of Directors	Name (If not listed above)	Residential Address	City, State, Zip Code
	Lester Hill	Route 1	Hope, KS 67451
	Dwight Meull	Route 2	Abilene, KS 67410
	Kevin Murphy	Route 2	Hope, KS 67451
	Jim Griffin	Route 3	Abilene, KS 67410
	Lynn Kauffman	Route 1	Enterprise, KS 67441
	Gary Foltz	Route 3	Abilene, KS 67410
	Vance Hassler	Route 2	Abilene, KS 67410

5. Shares Issued & Type

Shares Issued & Type	* Stock Paid Up (if applicable)
19,293 Common	$ 192,930.00
	$
	$
	$

* Must be same as item 9 on balance sheet

6. Number of Memberships 867

7. FEIN No. 48-0349050

8. Phone No. 913/479-2221

9. Does the corporation own or lease land in Kansas that is suitable for use in agriculture? This question does not apply to: 1). Tracts of land of less than 10 acres; 2). Contiguous tracts of land that in the aggregate are less than 10 acres; 3). State-assessed railroad operating property.

▼ YES ___ Complete items 10, 11 and 12 on back. ▼ NO _x_ Skip question 11 and complete items 10 and 12 on back.

ASSETS	AMOUNT	TOTAL
in		
ce notes & accounts receivable		
ess allowance for bad debts		
entories		
overnment obligations		
, S and instrumentalities		
State, subdivisions thereof, etc.		
Other current assets		
oans to shareholders		
Mortgage and real estate loans		
Other investments		
Buildings and other fixed		
epreciable assets		
Less accumulated depreciation		
Depletable assets		
Less accumulated depreciation		
Land (net of any amortization)		
Intangible assets (amortizable only)		
Less accumulated amortization		
Other assets		
TOTAL ASSETS		

LIABILITIES AND SHAREHOLDERS' EQUITY	AMOUNT	TOTAL
o. Accounts payable		
p. Mortgages, notes, bonds payable in less than 1 year		
q. Other current liabilities		
r. Contributions, gifts, grants payable		
s. Mortgages, notes, bonds payable in 1 year or more		
t. Other liabilities		
u. Total liabilities		
v. Capital stock:		
• Stock		
• Principal fund		
w. Paid-in or capital surplus		
x. Retained earnings		
y. Income fund		
z. Less cost of treasury stock	( )	
aa. Net worth (total shareholders' equity)		
bb. TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		

SEE EXHIBIT ATTACHED

(Lines w. and bb. must be identical)

11. Agricultural Land

a Total number of stockholders of the corporation _____

b Value of agricultural and non-agricultural assets that are owned and controlled by the corporation, both within and outside Kansas, and location of land:

		Value	Where Located
Within Kansas	Agricultural	$	
	Non-Agricultural	$	
Outside Kansas	Agricultural	$	
	Non-Agricultural	$	

c. Provide information on each lot, tract or parcel of agricultural land in Kansas that is owned or leased by the corporation. If extra space is needed, attach additional pages.

Location of tract or lot					Was this tract acquired after July 1, 1961?		Purpose for which land is owned or leased	Indicate for each tract or parcel if the tract is . . .			
County	Section	Township	Range	Number of acres in tract or lot	Yes	No		OWNED BY the corporation	LEASED TO the corporation	LEASED BY the corporation	If leased by the corporation, indicate to whom leased

d. Provide total agricultural acres for:

1 Total acres owned and operated _____

2 Total acres owned and operated and irrigated _____

3 Total acres leased by the corporation _____

4 Total acres leased by the corporation and irrigated _____

5 Total acres leased to the corporation _____

6 Total acres leased to the corporation and irrigated _____

12. I declare (or verify, certify or state) under penalty of perjury that the annual report is true and correct. Executed on this _____ day of 12 11, 1991

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION

Name (printed or typed)

David W. Bair

President

Title/Position

NAVARRE FARMERS UNION COOPERATIVE ASSOCIATION
Navarre, Kansas

BALANCE SHEETS
October 31, 1991/1990

ASSETS

	1991	1990
Current Assets - Note 7		
Cash	$ 25,342.07	$ 98,161.92
Accounts Receivable - Trade - Note 2	288,901.28	272,008.86
Grain Receivables - Trade	47,249.47	76,324.27
Grain Storage Receivable	15,225.21	44,589.53
Other Receivables	126,027.79	20,277.64
Inventories - Note 3	1,001,202.10	536,678.16
Prepaid Expenses	21,746.10	22,024.00
Total Current Assets	$1,525,694.02	$1,070,064.38
Investments - Note 4		
Corporate Stock	$ 460,534.56	$ 454,484.25
Property, Plant, and Equipment - Notes 5, 7, and 11		
Cost	$1,753,436.00	$1,717,273.00
Less - Accumulated Depreciation	1,244,964.00	1,159,930.00
Net Property, Plant, and Equipment	$ 508,472.00	$ 557,343.00
Other Assets - Note 6		
Accounts and Notes Receivable - Trade	$ 17,977.50	$ 31,993.76
Total Assets	$2,520,678.08	$2,113,885.39

See Accompanying Notes to Financial Statements

LIABILITIES AND MEMBERS' EQUITY

	1991	1990
Current Liabilities		
Accounts and Grains Payable	$ 148,865.27	$ 128,815.67
Taxes and Expenses Payable	29,076.68	56,997.38
Collections Received in Advance	24,454.16	4,689.02
Grain Storage Collected in Advance	841.35	5,997.27
Current Maturities of Bank Loans and Notes Payable - Note 7	533,000.00	100,000.00
Current Maturities of Certificates of Indebtedness and Patron Notes Payable - Note 7	174,583.28	167,679.60
Income Taxes Payable	-0-	262.33
Total Current Liabilities	$ 910,820.74	$ 464,441.27
Long-Term Liabilities, Excluding Current Maturities - Note 7		
Bank Loans and Notes Payable	$ 100.00	$ 100.00
Members' Equity		
Common Stock - 50,000 Authorized Shares $10.00 Par Value; Issued and Outstanding 1991 - 19,293 Shares, 1990 - 19,930 Shares	$ 192,930.00	$ 199,300.00
Stock Credits	2,007.04	2,231.40
Deferred Patronage Dividends	986,308.44	998,257.45
Per-Unit Retains	5,142.12	5,142.12
Retained Earnings	423,369.74	444,413.15
Total Members' Equity	$1,609,757.34	$1,649,344.12
Commitments - Notes 9 and 10		
Total Liabilities and Members' Equity	$2,520,678.08	$2,113,885.39

0 1 7 9 2

CERTIFICATE

STATE OF KANSAS)
) ss:
DICKINSON COUNTY,)

This is to certify that the undersigned and made a thorough and complete check of the records of the Register of Deeds office of said county and state relating to the following described lands, subsequent to January 1, 1900.

All that part of the North half of Section 33, Township 14 South, Range 3 East bounded and described as follows:

Commencing at the intersection of the center line of Main track of the Chicago, Kansas and Western Rail Road (Strong City Extension) with the South line of said hald Section, thence East on said South line to a point 150 feet distant at right angles from said center line; thence Northerly on a line 150 feet from and parallel to said center line to the North line of said Section 33, thence west on said North Line to a point West of and 150 feet distant at right angles from said center line, thence southerly on a line 150 feet from and parallel to said center line to a point 300 feet Northerly from the North line of May Street in the Town of South Navarre, Dickinson County, Kansas according to the recorded plat of said Town; thence Westerly on a line 300 feet from and parallel to said North line of May street to a point 350 feet distant at right angles from said center line; thence southerly 350 feet from and parallel to said center line to the North line of May Street; thence Easterly along the North line of May Street 200 feet; thence Southerly on a line 150 feet from and parallel to said center line to the South line of said half Section; thence East on said South line to the place of commencement.

Record Owner: The Atchison, Topeka and Santa Fe Railway Company.

and

A tract of land beginning at a point 30 feet South of the STOCK YARDS PLAT on the one-half Section line, running thence South on said line 240 feet, running thence directly east to the K.C. & R. R. right-of-way, running thence North along said right-of-way, to a point 40 feet South of the STOCK YARDS PLAT, running thence West to the point of beginning, said tract being located in the North East Quarter of Section 33, in Township 14 South, Range 3 East of the d6th. P.M., Dickinson County, Kansas.

Record Owner: Irene E. Larsen

and

Commencing on the North line of Section 33, Township 14 South, Range 3 East of the Sixth P.M., at a point where said line intersects the West line of the right of way of the Chicago, Kansas and Western Railroad, running thence West 85 feet; thence South to the North line of the Stockyards of said railraod; thence East ot the West line of the right of way of said railraod; thence Northwesterly along the West line of the right of way of said railroad to the place of beginning.

(continuted)

Record Owner: Navarre Farmers Union Cooperative Association.

That the only lease of record as to any portion of said lands lying west of the center line of the railroad right of way is a certain Lease dated June 21, 1954, from The Atchison, Topeka and Santa Fe Railway Company and Commodity Credit Corporation, filed July 22, 1954 and recorded in Misc. Record Book 172 Page 416. (copy attached).

Dated at Abilene, Kansas this 18th day of March, A.D. 1992.

THE DICKINSON COUNTY TITLE CO.

By David J. Robson

David J. Robson
Licensed Abstracter

Misc. Book ____ Page ____
SANTA FE ORIGINAL

Form 1010 Standard
(Approved by Central Editors)

LEASE OF LAND (Short Term)

THIS LEASE, Made as of the 21st day of June, 1954, between THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY a Kansas corporation (hereinafter called "Lessor"), and COMMODITY CREDIT CORPORATION, a Government Agency (hereinafter, whether one party or more, called "Lessee").

WITNESSETH, That the parties hereto for the considerations hereinafter expressed covenant and agree as follows:

1. Lessor hereby leases to Lessee, subject to the rights and easements hereinafter excepted and reserved, and upon the terms and conditions hereinafter set forth, the land (hereinafter called "Premises") situated at or near Navarre, County of Dickinson, State of Kansas, outlined in red coloring on the print hereto attached, No. DEO SL-N-259, dated June 11, 1954, marked "Exhibit A" and made a part hereof, for a term beginning on May 15, 1954, and ending when this lease shall be terminated as hereinafter provided.

2. Lessor hereby excepts and reserves the right, to be exercised by Lessor and by any others who have obtained or may obtain permission or authority from Lessor so to do, (a) to operate, maintain, renew and relocate any and all existing pipe, power, and communication lines and appurtenances and other facilities of like character upon, over or under the surface of the Premises; and (b) from time to time to construct, operate, maintain, renew and relocate such additional facilities of the same character as will not unreasonably interfere with the use of the Premises by Lessee for the purpose specified in paragraph 6 hereof.

3. Lessee shall pay to Lessor on or before the first day of each period of one year during the continuance of this lease as rental for the use of the Premises for such period, a sum equal to six per cent (6%) of the fair rental value of the Premises, but not less than Twelve and No/100 Dollars ($ 12.00). For the purposes of this lease the fair rental value of the Premises at the effective date hereof is agreed to be Five Hundred Twenty Six and 85/100 Dollars ($ 526.85), and the initial rental shall be Thirty One and 61/100 Dollars ($ 31.61) per annum. Such fair rental value shall be increased from time to time by the amount of any governmental charge or assessment (except general property taxes) payable on account of or in respect to the Premises for the construction of public improvements.

4. Lessor covenants and warrants that Lessee either owns, or has obtained from the owner or owners thereof the right to use, any improvements now on the Premises shown or described on said Exhibit A as "Lessee's Existing Improvements." Such improvements, if any, together with any other improvements hereafter placed upon the Premises by or for account of Lessee are hereinafter called "Improvements."

5. Lessee shall pay before the same become delinquent all taxes, charges, rates, and assessments which may, during the term of this lease, be levied upon, or assessed against, or be equitably chargeable to or assessed in respect of the Improvements; and where any such tax, rate, charge, or assessment may be embraced in the general amount of taxes charged upon the Premises separately or in connection with other property of Lessor and Lessor shall pay all of said taxes, then Lessee shall promptly repay or refund to Lessor the amount or part of the tax, charge, rate or assessment equitably or fairly apportionable to the Improvements.

6. Lessee shall use the Premises exclusively as a site for grain storage bins.

7. Lessee shall keep and maintain the Premises and Improvements in such safe, sanitary, and sightly condition as shall be satisfactory to Lessor, and, if required by Lessor, shall paint the Improvements with paints of a color approved by Lessor; and if Lessee fails or refuses within fifteen (15) days after receipt of any request by Lessor so to do, Lessor may, at its option, perform such work, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred.

8. In using the Premises, and in constructing, maintaining or using and using the Improvements thereon, Lessee shall comply with any and all requirements imposed by federal or state statutes, or by ordinances, orders, or regulations of any governmental body having jurisdiction thereover. In the event the Premises or Improvements shall be used for the loading, unloading, storing, or otherwise handling of any petroleum products, Lessee shall comply with all applicable regulations and recommendations from time to time promulgated by the Bureau of Explosives of the Association of American Railroads, or any successor agency. All artificial lighting in pump houses, warehouses, or other buildings upon the Premises where oil or other inflammable fluid supplies are handled or stored by Lessee, except in unbroken original containers, shall be by electricity, and such electrical installation and any other electrical installation upon the Premises shall at all times conform to and be maintained in accordance with the provisions of the then current edition of the National Electrical Code with respect to Class I hazardous locations." Lessee shall promptly pay and discharge any and all liens arising out of any construction, alteration or repair work done, or suffered or permitted to be done, by Lessee on the Premises, and Lessor is hereby authorized to post any notices or take any other action upon or with respect to the Premises that is or may be permitted by law to prevent the attachment of any such liens to the Premises; provided, however, that the failure of Lessor to take any such action shall not relieve Lessee of any obligation or liability under this or any other paragraph hereof.

9. Lessee shall at all times keep a space of six (6) feet from the nearest rail of any railroad track entirely clear of structures, material and obstructions of every sort and shall observe an overhead clearance of not less than twenty-five (25) feet above the top of rail; but, nevertheless, for convenience in handling freight to and from cars on any railroad track serving the Premises, the Lessee may install, use and maintain (a) loading or unloading cranes or other devices not nearer than six (6) feet from the nearest rail of such track and no part of which shall at any time project or extend in the direction of such track except when crane or device is being used for loading or unloading freight and (b) platforms which shall be not more than three (3) feet and six (6) inches higher than the top of the rails, and which at no point shall be nearer than four (4) feet to the nearest side of the head of the nearest rail of such track; provided, however, if by statute or order of competent public authority different clearances shall be required, then Lessee shall strictly comply with such statute or order.

10. Lessee agrees to indemnify and save harmless Lessor against all loss, damage or expense which Lessor may sustain, incur or be or may be liable for, including loss of or damage to property or injury to or death of persons and fines or penalties imposed against or assessed against Lessor, arising in any manner out of (a) the use of the Premises or Improvements by Lessee or any other party through Lessee of the terms, covenants or conditions in this instrument contained, or (b) the sole or contributing acts or omissions of Lessee or the employees, agents, patrons or invitees of Lessee in, on or about the Premises or Improvements, except that if Lessor shall participate in any such contributing acts or omissions, then the loss, damage or expense arising therefrom shall be borne by the parties hereto equally; provided, however, that Lessor hereby assumes the risk of, and agrees to indemnify Lessor against liability for, loss of or damage to the property of Lessee or of others upon the Premises (except any rolling stock or shipments in the course of transportation and except any property of Lessor or others placed or kept on the Premises pursuant to paragraph 2 hereof) due to fire communicated from locomotives while being operated by Lessor upon any tracks within or in the vicinity of the Premises, regardless of Lessor's negligence, if any.

11. Neither Lessee nor the heirs, legal representatives, successors or assigns of Lessee, nor any subsequent assignee, shall underlease or sublet the Premises or the Improvements, or any part thereof, nor assign or transfer this lease or any interest herein, without the written consent and approval in each instance of Lessor.

12. In case of the eviction of Lessee by anyone owning or claiming title to or any interest in the Premises, Lessor shall not be liable to Lessee for any damages of any nature whatsoever, or to refund any rental paid hereunder, except the proportionate part of any rental paid in advance.

13. If any rental hereunder shall be [illegible] unpaid, or if default shall be made in any of the covenants or agreements [illegible] of this lease by operation of law, Lessor may, at its option, terminate this lease by serving five (5) days' notice in writing upon Lessee; but any waiver by Lessor of any default or defaults shall not constitute a waiver of the right to terminate this lease for any subsequent default or defaults.

14. This lease may be terminated at any time by either party by serving thirty (30) days' written notice of termination upon the other party, stating therein the date that such termination shall take place, and upon the expiration of the time specified in such notice this lease and all rights of Lessee hereunder shall absolutely cease and determine; but upon any such termination Lessee shall be entitled to have refunded by Lessor a proportionate part of any rental paid in advance.

15. Any notice to be given by Lessor to Lessee pursuant hereto shall be deemed to be properly served if the same be delivered to Lessee, or if left with any of the agents, servants or employees of Lessee, or if posted on the Premises, or if deposited in the Post Office, postpaid, addressed to Lessee at

Abilene, Kansas

16. Upon the termination of this lease in any manner herein provided, Lessee shall forthwith surrender to Lessor the possession of the Premises and shall remove the Improvements and restore the Premises to substantially the state in which they were prior to the construction of the Improvements, and in case Lessee shall fail within thirty (30) days after the date of such termination to make such removal or restoration, then Lessor may, at its election to be exercised within thirty (30) days thereafter, either remove the Improvements and restore the Premises for the account of Lessee, and in such event Lessee shall within thirty (30) days after the rendition of bill therefor reimburse Lessor for the cost so incurred, or may take and hold the Improvements as its sole property.

17. If Lessee fails to surrender to Lessor the Premises upon any termination of this lease, all the liabilities and obligations of Lessee hereunder shall continue in effect until the Premises are surrendered; and no termination of this lease by Lessor from any liability or obligation hereunder, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or the date, if later, when the Improvements are removed and the Premises restored or Lessor elects to take and hold the Improvements as its sole property as herein provided in paragraph 16 provided.

18. In the event that Lessee consists of two or more parties, all the covenants and agreements of Lessee herein contained shall be the joint and several covenants and agreements of such parties.

19. All the covenants and agreements of Lessee herein contained shall be binding upon the heirs, legal representatives, successors and assigns of Lessee, and shall inure to the benefit of the successors and assigns of Lessor.

IN WITNESS WHEREOF, This lease has been duly executed in duplicate by the parties hereto as of the day and year first above written.

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY (Lessor)

By

Its Assistant to General Manager

Approved as to description:

Chief Engineer.

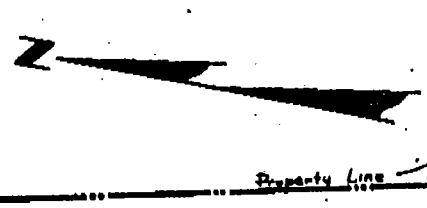
COMMODITY CREDIT CORPORATION

By

Its (Lessee).

EXHIBIT "A"
To Contract Between
THE ATCHISON TOPEKA AND SANTA FE RAILWAY COMPANY
Middle Division Strong City District
and
COMMODITY CREDIT CORPORATION
Covering lease of site for grain storage bins at
Navarre, Dickinson County, Kansas
Scale 1" = 100' DEO Newton, Kansas, No. GL-N-259
Dated June 11, 1954 Identified by

Division Engineer



(Lessee.)

Lease of Land
(Short Form)

To

Site for ..... Station.

..... Division

In office 19

EXPIRES ON THIRTY DAYS NOTICE

Div. Supt's No.

Chief Engineer's No.

STATE OF KANSAS, }ss
Dickinson County }

JUL 22 1953

Chief Engineer

Environmental Science Division
Argonne National Laboratory
9700 South Cass Avenue, Bldg. 203
Argonne, IL 60439-4843
www.anl.gov

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