DOE/NV/10845-50
UC-703

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SEPTEMBER 1994

Publication #45129

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Publication No. 45129

prepared for
Nevada Operations Office
U.S. Department of Energy
Las Vegas, Nevada

September 1994

The work upon which this report is based was supported by the U.S. Department of Energy under Contract #DE–AC08–90NV10845.

ABSTRACT

More than 500 domestic, agricultural, and monitoring wells were identified in the Amargosa Valley. From this list, 80 wells were identified as potential hydrologic characterization wells, in support of the U.S. Department of Energy (DOE) Underground Test Area/Remedial Investigation and Feasibility Study (UGTA/RIFS). Previous hydrogeologic studies have shown that groundwater flow in the basin is complex and that aquifers may have little lateral continuity. Wells located more than 10 km or so from the Nevada Test Site (NTS) boundary may yield data that are difficult to correlate to sources from the NTS. Also, monitoring well locations should be chosen within the guidelines of a hydrologic conceptual model and monitoring plan. Since these do not exist at this time, recompletion recommendations will be restricted to wells relatively close (approximately 20 km) to the NTS boundary.

Recompletion recommendations were made for two abandoned agricultural irrigation wells near the town of Amargosa Valley (previously Lathrop Wells), for two abandoned wildcat oil wells about 10 km southwest of Amargosa Valley, and for Test Well 5 (TW-5), about 10 km east of Amargosa Valley.

CONTENTS

FIGURES

OBJECTIVE

Existing wells are identified that may be used to characterize the hydrogeologic conditions of Amargosa Valley. These wells include active and abandoned agricultural, domestic, and monitoring wells. Hydrologic data from these wells will be used to develop a conceptual model of the hydrogeology downgradient of the Nevada Test Site (NTS), in support of the Underground Test Area Remedial Investigation and Feasibility Study (UGTA/RIFS) program. This report includes a brief review of the hydrologic literature related to the Amargosa Valley and vicinity, a list of wells that could be evaluated in the future, and a list of recommendations for the recompletion of wells near the NTS boundary.

INTRODUCTION

Past hydrogeologic studies were conducted to evaluate the water-resources potential of the area (Malmberg and Eakin, 1962; Walker and Eakin, 1963), evaluate the impacts of groundwater pumping (Dudley and Larson, 1976), estimate groundwater recharge from wash infiltration (Osterkamp et al., 1994), and evaluate regional groundwater flow (Rush, 1971; Blankennagal and Weir, 1973; Winograd and Thordarson, 1975; Claassen, 1975; Czarnecki and Waddell, 1994; Waddell et al., 1984; Bedinger et al., 1989; Harrill et al., 1988; Dettinger, 1989; Burbey and Prudic, 1991). Specific hydrologic studies were conducted by Akers (1974) to evaluate the hydrologic relation of groundwater in the Amargosa Desert to spring discharge in Death Valley. Groundwater levels in the Amargosa Desert were most recently evaluated by Kilroy (1991) and a report is currently being drafted on the hydrogeology and geochemistry of the area (Czarnecki, 1994, personal communication).

The evapotranspiration rate in the area is high, particularly in the summer, because of the low humidity and the high temperatures. Studies conducted in the area by Nichols (1987) suggest that nearly 1.9 m of water are lost to evapotranspiration annually.

The geology of the area is complex, both lithologically and structurally. The oldest geologic units in the area are paleozoic rocks of various lithologies: carbonate (limestone and dolomite) and non-carbonate (shale, quartzite, siltstone, etc.). These units are depositionally overlain by Tertiary volcanic ash-fall tuff, sedimentary valley-fill, playa, and lakebed deposits, and Quaternary alluvium. Several major faults have been mapped in the area which in some cases may disrupt lateral continuity of aquifers or in other areas may form conduits for groundwater flow.

Springs and seeps in the area issue primarily from carbonate-rock aquifers and to a lesser extent from non-carbonate aquifers. Water from the Paleozoic aquifers are generally from regional groundwater flow systems (Mifflin, 1968; Dettinger, 1989). Previous studies suggest that regional groundwater flow systems may be interconnected from Death Valley to the White River flow system, some 483 km northeast of Death Valley.

Most groundwater is pumped from valley-fill and alluvial aquifers overlying the bedrock aquifers. The impact of pumping in the sedimentary aquifers on the underlying carbonate aquifers

is poorly understood. At Ash Meadows, direct connections between pumping from the alluvial aquifers and water level declines in the carbonate rocks were demonstrated. Groundwater development near Devil's Hole lowered water levels by more than 30 cm in the carbonate aquifers between 1969-72 (Bateman et al., 1974; Dudley and Larson, 1976). The water levels recovered slowly over a period of about 15 years after pumping ceased. A study conducted by Akers (1974) showed that heavy pumping in the Amargosa hydrologic basin may produce decreased spring flow in Death Valley in 10 to 40 years.

Only small amounts of surface water are found within the area. Several small springs exist near Beatty, in the Amargosa Desert and in Death Valley. Discharge from the springs varies from a seep to over 378 liters per minute, all of which either is collected for consumptive use or flows a short distance before percolating into sedimentary units and/or being evapotranspired. Additionally, several small ponds exist in Amargosa Valley at the locations of borrow pits, where the water table has been intersected. Runoff from intensive precipitation may occur for short periods of time in washes or streambeds in the area.

AVAILABLE WELLS IN AMARGOSA VALLEY

Upon review of the literature, the most extensive inventories of wells in the area were contained in two U.S. Geological Survey (USGS) reports (Thordarson et al., 1967; Thordarson and Robinson, 1971; Kilroy, 1991). For this study, a database of approximately 500 wells was constructed from a USGS database. Wells north of 36°40'23" and east of 116°29'46" (within the NTS) were removed from the database. The remaining 611 records are listed in Appendix A. Two "wild cat" oil wells in Amargosa Valley were also added to Appendix A. Of the 613 records, there were 526 wells (i.e., 87 wells have duplicate entries with the same location). All 526 wells are shown on the location map (Figure 1).

Eight wells (Army Well 1, Army 6, Army 6A, Camp Desert Rock, and four wells east of Yucca Mountain), were excluded from the list, as these are considered part of the "on-site" DOE programs. An additional 34 shallow monitoring wells are associated with the U.S. Ecology disposal facility and will not be further evaluated. The remaining wells are sparsely distributed between Beatty and Pahrump, with clusters of wells near Pahrump and the area southwest of the town of Amargosa Valley.

Most of the wells in Amargosa Valley are shallow (15 to 30 m deeper than the water table). The scope of this study was to identify wells that may used to help develop a conceptual model of the regional hdyrogeology. Therefore, wells near the NTS, where sparse data exist, and wells that penetrate more than 50 m of saturated interval, were deemed potential hydrologic characterization wells. Based on these criteria, 80 wells were identified as potential hydrologic characterization wells (Figure 2, Appendix B).

Many of these wells are U.S. Park Service monitoring wells and are shown as being owned by the "USGS" or "US BORAX" in Appendix B. These wells primarily parallel the California/Nevada

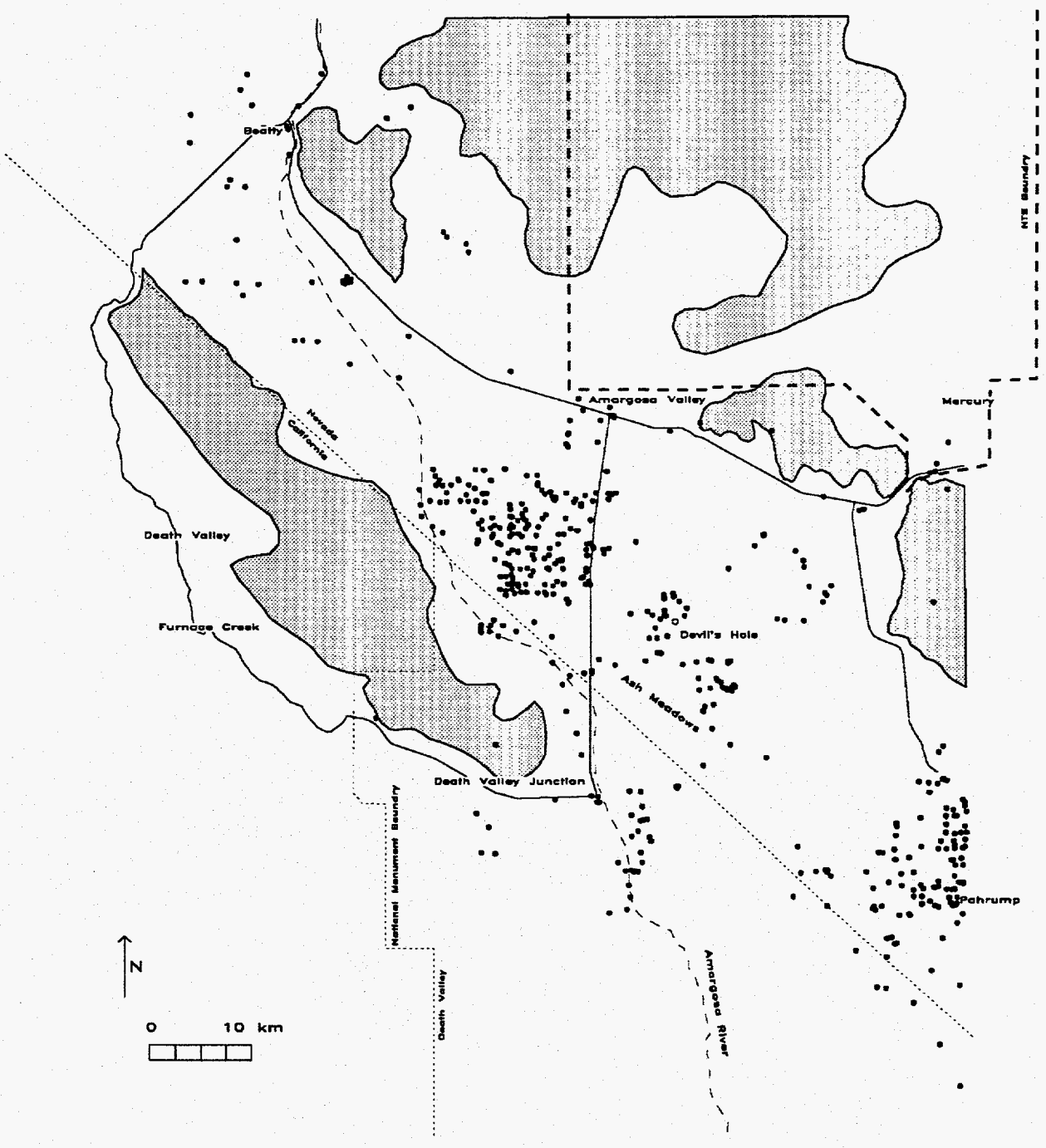

Figure 1. General location map of Amargosa Valley (526 wells are represented with dots, bed-rock areas are shaded).

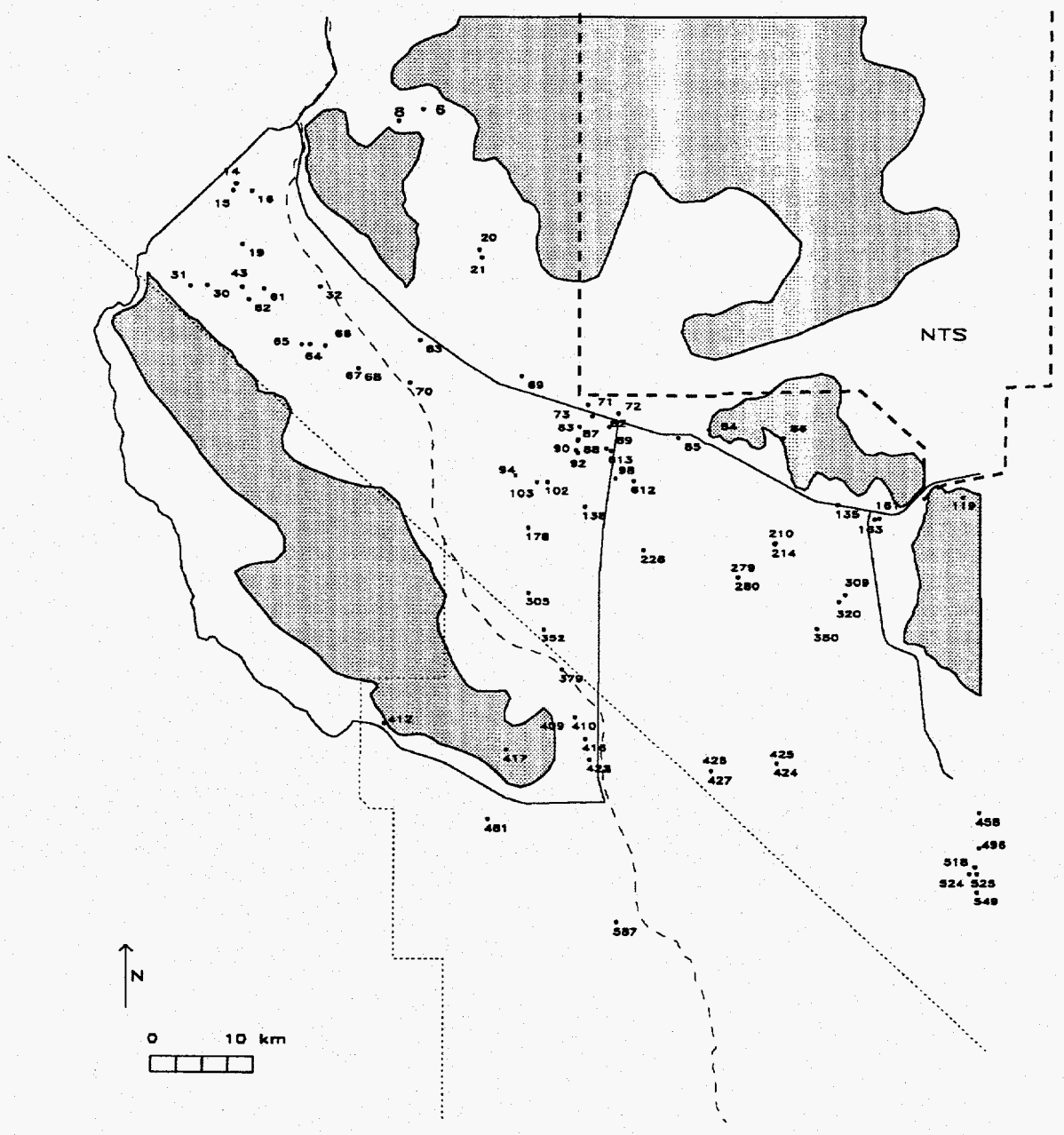

Figure 2. Location map of potential groundwater characterization wells in Amargosa Valley (80 wells are represented with dots, numbers correspond to site numbers in the appendices, and bed-rock areas are shaded).

border from Beatty to Site 68 (Figure 2), and are completed at various depths, ranging from 98 to 762 m. Most of these wells were drilled specifically for the purpose of monitoring and therefore do not require recompletion.

Sites 6 and 8 are located between the NTS and Beatty and are in the approximate location of a gold mining operation. These wells are believed to be currently used for construction water; however, this area has not yet been field checked. Information on the lithology is not available for these wells.

Sites 71, 83, 87 and 90 are abandoned agricultural irrigation wells near the town of Amargosa Valley. These sites were visited in 1993 and their locations were confirmed with a global positioning system unit. Site 71 had an original total depth (TD) of 295 m and now has bottom-hole depth of 55 m. Site 83 currently has a shaft-driven pump installed with the motor removed. This well was drilled to a TD of 174 m and in 1987 had a depth to water of 90.1 m (Figure 3). The current depth to water is unknown. Site 87 originally had a TD of 152 m and in 1962 had a depth to water of 77.8 m. This well is currently dry. Site 90 (site 92 is thought to be the same well) was drilled to a TD of 135 m and in 1987 had a depth to water of 71.7 m (Figure 4). This well is currently open and has a depth to water of 72.1 m. These irrigation wells are all constructed with 30+ cm-diameter casing, which may be ample size for most recompletion projects.

Site 84 (TW-5, hydrologic test well 5) was drilled by the Atomic Energy Commission in 1962 to TD of 279 m (West and Garber, 1962). The well was completed with 33.8-cm-diameter conductor (cemented from land surface to 51 m deep) and 17.8-cm-diameter casing from 0 to 244 m deep (the bottom 19 m were machine-cut vertical-slot casing) (Figure 5). The bottom 230 m were completed in Paleozoic carbonate rocks of the Carrara Formation, which were overlain by Tertiary alluvium. The most recent water level measurement was made in 1962 and was 205.4 m below land surface. The road to the site has been eroded and is currently impassible.

Sites 86, 135, 161 and 163 could not be found during field investigations and are believed to have been destroyed.

Two abandoned exploration oil wells are located approximately 6 km southwest of Amargosa Valley town: Federhoff-Federal 5-1 and Federhoff-Federal 25-1 (hereon referred to as 5-1 and 25-1, respectively). These wells were drilled in September-November 1991. Well 5-1 was drilled to a total depth of 447 m and was abandoned by setting three cement bridge plugs with heavy drilling mud between the plugs (Figure 6). The upper 259 m of the hole penetrated Neogene(?) deposits followed by carbonate rocks (Harris et al., 1992). Well 25-1 was drilled to a total depth of 1530 m and was also abandoned by setting three cement bridge plugs with heavy mud between the plugs (Figure 7). The upper 671 m of the hole penetrated Neogene(?) deposits followed by 305 m of Paleozoic carbonate rocks of the Nopah Formation; the remainder of the hole is Goodwin Limestone (Harris et al., 1992). These wells were abandoned in such a way that they could be recompleted as monitoring wells. The Yucca Mountain Project originally intended to complete these as monitoring wells, but has lost interest in them in the last two years (Czarnecki, 1994, personal communication). Therefore, the wells are available for recompletion as UGTA/RIFS wells.

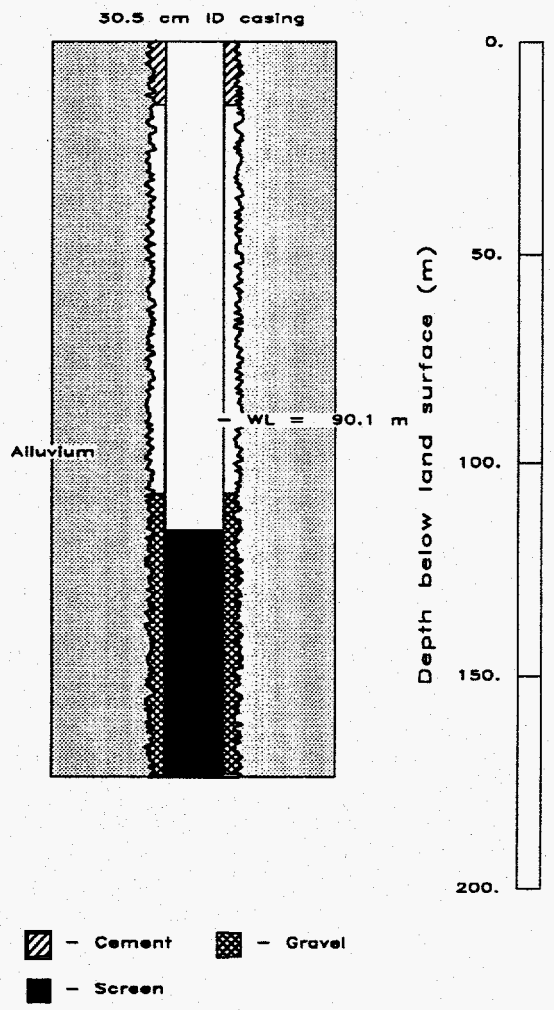

Figure 3. Generalized well completion schematic of abandoned agricultural well site 83.

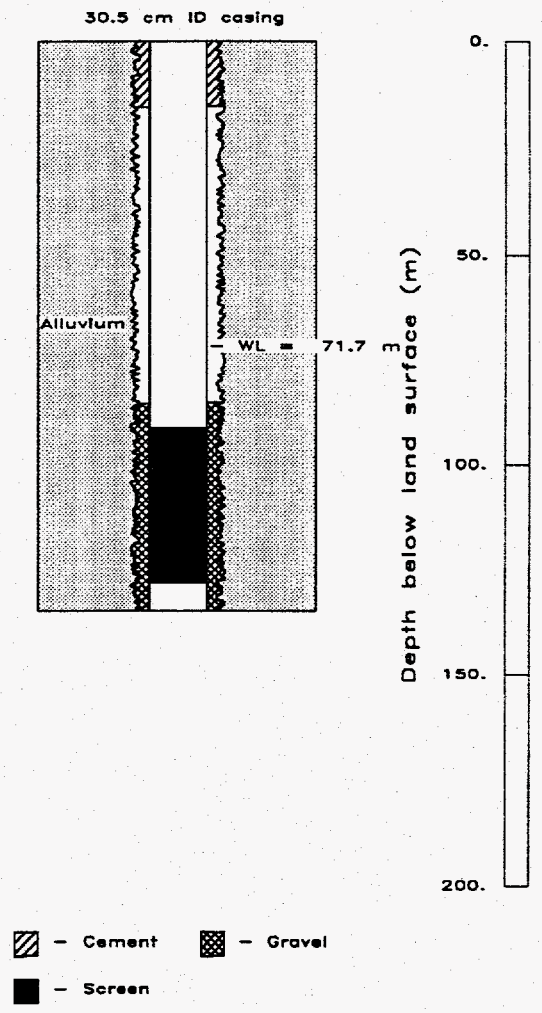

Figure 4. Generalized well completion schematic of abandoned agricultural well site 90.

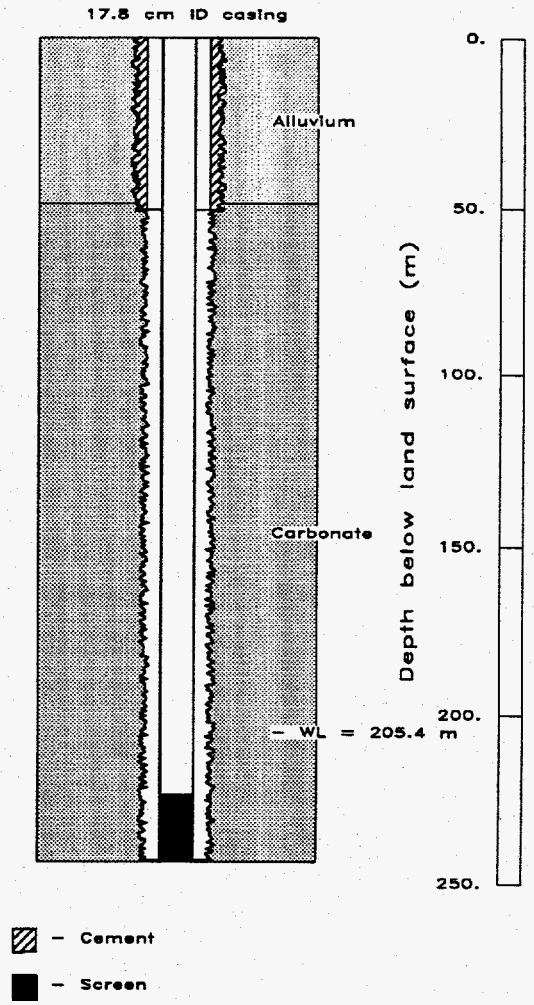

Figure 5. Generalized well completion schematic for Test Well-5 (TW-5).

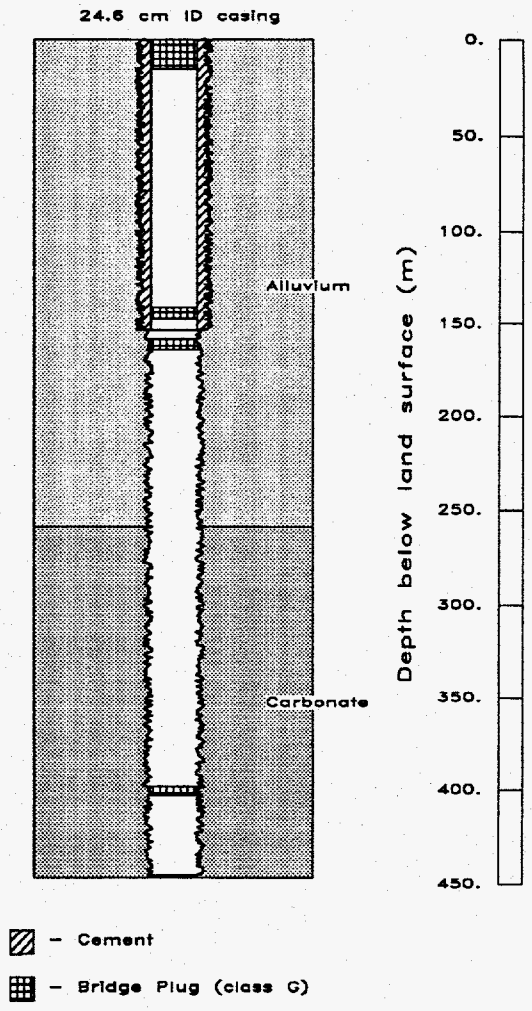

Figure 6. Generalized well completion schematic of Federhoff-Federal 5-1.

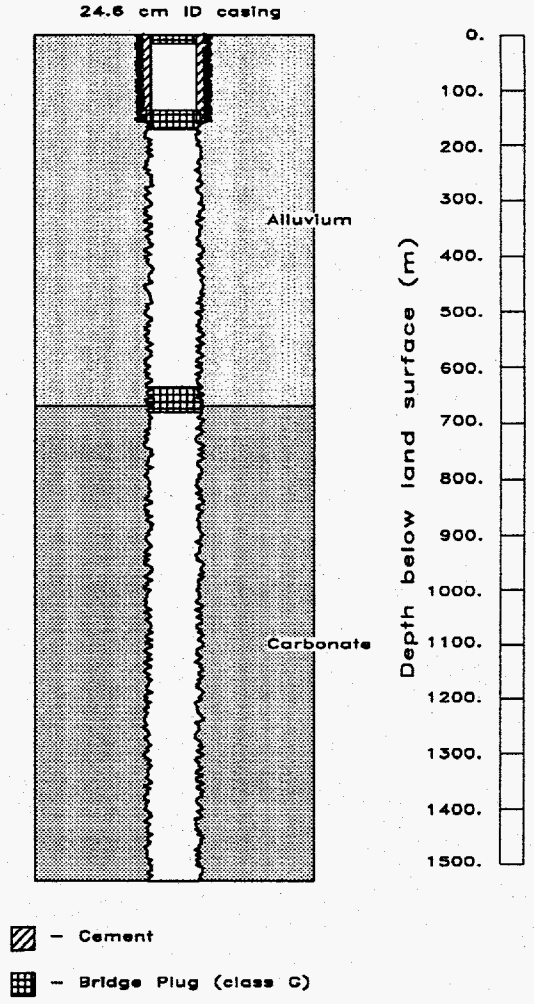

Figure 7. Generalized well completion schematic of Federhoff-Federal 25-1.

RECOMMENDATIONS

The abandoned agricultural wells near Amargosa Valley, the two abandoned oil wells, and well TW-5 appear to be the most suitable wells for recompletion as monitoring wells, based on their proximity to the NTS boundary, their downgradient hydrologic location to the NTS, and their current ownership/use. If the agricultural wells are truly abandoned, it may be possible for the Nevada State Engineer to condemn the wells and donate them to the DOE for recompletion. The oil wells and well TW-5 are currently owned by the U.S. government (Bureau of Land Management and DOE, respectively); therefore, gaining access to these wells should not be a problem.

These steps are required for the sites to be included in the UGTA/RIFS program:

Abandoned Irrigation Wells

- Establish ownership of the wells
- Remove the pump from site 83 well
- Secure well heads with locking steel plates
- Perform basic casing integrity logs and video logs
- Install pumps in sites 83 and 90 and perform single-well aquifer tests, compute hydraulic parameters
- Establish a monitoring program based on program needs

Abandoned Oil Wells

- Change ownership of the wells from BLM to DOE
- Review hole history
- Develop well completion schedule, drilling plan, etc.
- Build drill pad, locate well casings
- Drill out cement bridge-plugs
- Install single completion monitoring well string or sliding-sleeve casing
- Develop well and perform aquifer test if possible
- Establish a monitoring program based on program needs

TW-5

- Establish access permission from Nevada Department of Transportation
- Evaluate road condition, repair as needed
- Secure well head with locking steel plate
- Perform basic casing integrity log and video log
- Install a pump and perform single-well aquifer tests, compute hydraulic parameters
- Establish a monitoring program based on program needs

CONCLUSIONS

Of the 524 wells in Amargosa Valley, 80 were identified as potential hydrologic characterization wells. Five wells within a 10-km radius of the town of Amargosa Valley were discussed and recommendations were made related to recompletion strategies. Based on previous experience drilling monitoring wells on the NTS, recompleting existing wells may save as much as 40 percent when compared to spudding new holes. Of the five wells described in the recommendation section, the work at TW-5 would require the least work and therefore may be the least expensive, followed by the abandoned agricultural wells, and finally the abandoned wildcat wells. Although the wildcat wells may be the most expensive to recomplete, they intersect more saturated interval and would yield valuable information about the regional carbonate aquifer.

It is recommended that a recompletion schedule be prioritized as follows:

1. TW-5
2. wildcat wells
3. agricultural wells

ACKNOWLEDGEMENTS

The authors would like to thank Randy Laczniak and Dave Wood of the U.S. Geological Survey for their help in developing the database for this report.

REFERENCES

Akers, J.P., 1974, "The relation of groundwater flow in Amargosa Desert, California-Nevada, to spring discharge in Death Valley California." U.S. Geological Survey Administrative Report, Menlo Park, CA, pp 9.

Bateman, M.S., Mindling, A.L. and Naff, R.L., 1974, "Development and management of groundwater in relation to preservation of desert pupfish in Ash Meadows, southern Nevada." University of Nevada, Desert Research Institute, Pub. No. 17, pp 39.

Bedinger, M.S., J.R. Harrill, W.H. Langer, J.M. Thomas and D.A. Mulvihill, 1984, "Maps showing ground water levels, springs, and depth to groundwater, basin and range province, Nevada." U.S. Geological Survey Water-Resources Investigation 83-4119-B.

Bedinger, M.S., K.A. Sargent and W.H. Langer, 1989, "Studies of the geology and hydrology in the basin and range province, southwestern United States, for isolation of high-level radioactive waste - characterization of the Death Valley region, Nevada and California." U.S. Geological Survey Professional Paper 1370-F, pp 35.

Blankennagel, R.K. and J.E. Weir, 1973, "Geohydrology of the eastern part of Pahute Mesa, Nevada Test Site, Nye County, Nevada." U.S. Geological Survey Professional Paper 712-B, pp 35.

Burbey, T.J. and Prudic, D.E., 1991, "Conceptual evaluation of regional groundwater flow in the carbonate-rock province of the Great Basin, Nevada, Utah, and adjacent states." U.S. Geological Survey Professional Paper 1409-D, pp 84.

Claassen, H.C., 1975, "Sources and mechanisms of recharge for groundwater in west-central Amargosa Desert, Nevada -- a geochemical interpretation." U.S. Geological Survey Professional Paper 712-F, pp 30.

Czarnecki, J.B. and R.K., Waddell, 1984, "Finite-element simulation of ground water flow in the vicinity of Yucca Mountain, Nevada-California." U.S. Geological Survey Water-Resources Investigations Report 84-4349, pp38.

Dettinger, M.D., 1989, "Distribution of carbonate rock aquifers in southern Nevada and the potential for their development, summary of findings, 1985-88." Summary Report 1, U.S. Geological Survey and Desert Research Institute, pp 37.

Dudley, W.W., Jr. and J.D. Larson, 1976, "Effect of irrigation pumping on desert pupfish habitats in Ash Meadows, Nye County, Nevada." U.S. Geological Survey Professional Paper 927, pp 52.

Grove, D.B., 1971, "U.S. Geological Survey tracer study, Amargosa Desert, Nye County, Nevada; Part II: an analysis of the flow field of a discharging-recharging pair of wells." U.S. Geological Survey, USGS-474-99, pp 56.

Harrill, J.R., J.S. Gates and J.M. Thomas, 1988, "Major ground water flow systems in the Great Basin region of Nevada, Utah, and adjacent states." U.S. Geological Survey, Hydrologic Atlas, 694-C.

Harris, A.G., J.E. Repetski, J. Clayton, J.A. Grow, M.D. Carr and T.A. Daws, 1992, "Results from 1991 wildcat wells near Yucca Mountain, Nevada." Geological Society of America, Abstracts with Programs, Vol. 24, No. 6.

Kilroy, K.C., 1991, "Groundwater conditions in Amargosa Desert, Nevada-California, 1952-87." U.S. Geological Survey Water-Resources Investigations Report 89-4101, pp 93.

Malmberg, G.T. and T.E. Eakin, 1962, "Groundwater appraisal of Sarcobatus Flat and Oasis Valley, Nye and Esmeralda Counties, Nevada." State of Nevada, Department of Conservation and Natural Resources, Groundwater Reconnaissance Series, report 10, pp 39.

Mifflin, M.D., 1968, "Delineation of groundwater flow systems in Nevada." Desert Research Institute, Water Resources Center, Technical Report Series H-W, No. 4, pp 111.

Nichols, W.D., 1987, "Geohydrology of the unsaturated zone at the burial site for low-level radioactive waste near Beatty, Nevada, Nye County, Nevada." U.S. Geological Survey Water-Supply Paper 2312, pp 52.

Osterkamp, W.R., L.J. Lane and C.S. Savard, 1994, "Recharge estimates using a geomorphic/ distributed-parameter simulation approach, Amargosa River Basin." Water Resources Bulletin, Vol 30, No. 3, pg 493-507.

Rush, F.E., 1971, "Regional groundwater systems in the Nevada Test Site area, Nye, Lncoln, and Clark Counties, Nevada." State of Nevada, Department of Conservation and Natural Resources, Water Resources Reconnaissance Series, Rpt. No. 54, pp 25.

Thordarson, W., R.A. Young and I.J. Winograd, 1967, "Records of wells and test holes in the Nevada Test Site and vicinity (through December 1966); U.S. Geological Survey, TEI-872, pp 26.

Thordarson, W. and B.P. Robinson, 1971, "Wells and springs in California and Nevada within 100 miles of the point 37°15' N., 116°25' W., on the Nevada Test Site." U.S. Geological Survey, USGS-474-85, pp 178.

Walker, G.E. and T.E. Eakin, 1963, "Geology and groundwater of Amargosa Desert, Nevada-California." State of Nevada, Department of Conservationandf Natural Resources, Groundwater Reconnaissance Series, report 14, pp 45.

Waddell, R.K., J.H. Robinson and R.K. Blankennagel, 1984, "Hydrology of Yucca Mountain and vicinity, Nevada-California--investigation results through mid-1983." U.S. Geological Survey, Water-Resources Investigations Report 84-4267, pp 72.

West, L.R. and M.S. Garber, 1962, "Summary of hydraulic tests and abridged lithologic log for groundwater test well 5, Nye County, Nevada." U.S. Geological Survey Technical Letter: NTS-34, pp 7.

Winograd, I.J. and W. Thordarson, 1975, "Hydrogeologic and geochemical framwork, south-central Great Basin with special reference to the Nevada Test Site." U.S. Geological Survey Professional Paper 712-C, pp 126.

APPENDIX A

613 WELLS LOCATED IN AMARGOSA VALLEY

Appendix water level codes under the heading descriptor:

O - original
C - current

Codes:

D - dry
E - recently flowing
F - flowing
G - nearby site flowing
H - nearby site recently flowing
I - injection of water
J - nearby site injected with water
N - measurement discontinued
O - obstruction above water surface
P - pumping
R - recently pumped
S - nearby site pumping
T - nearby site recently pumping
V - foreign substance on water surface
W - well destroyed
X - surface-water affects
Z - other (explain in remarks)

Note: Latitude and Longitude (deg, min, sec)
Elevation (m above mean sea level)
Total Depth, Perforation Interval and Water Level (m below land surface)
Date (month/day/year)

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
1	365711	1643051	097.2					00-00-00				
2	365709	1164811	1292.3	211.2	61.0	210.3	53.9	08-22-88			BEATTY INDIAN SPR WELL	BEATTY WATER AND SEWER
3	365619	1164839	1286.2					00-00-00			BEATTY MIDDLE WELL	BEATTY WATER AND SEWER
4	365527	1164753	1170.4	213.3	73.1	213.3	9.1	01-15-89			BEATTY SUMMIT WELL	BEATTY WATER AND SEWER
5	365524	1164440	1097.2	61.0			29.0	00-00-00				
6	365520	1163703	1198.1	487.7	243.8	487.7	201.2	09-01-89			GEXA WELL 4	USNGS GEXA
7	365457	1165158	1341.1	53.3			24.4	00-00-00				
8	365445	1163839	1243.8	213.3	63.4	213.3	41.1	09-18-88			GEXA WELL 3	GOLD GEXA
9	365420	1164530		91.4				00-00-00			BEATTY P.S. WELL	
10	365409	1164523	1158.2	59.4			6.1	00-00-00				
11	365326	1165202	1164.3	121.9			83.1	01-06-87				FARRAGUT
12	365247	1164518	969.2	37.8	9.1	36.9	5.4	01-15-87				RANCHERS EQUIP & SUPPLY COMPANY
13	365245	1164518						00-00-00				
14	365128	1164920						00-00-00			ETH I-4	
15	365106	1164932	364.2				219.1	08-10-88			II-1	
16	365105	1164819						00-00-00			II-2	
17	364837	1163452	978.4				141.3	03-10-85			USW VH-2	USGS-WRD
18	364821	1163437	974.4	1219.1	219.4	1219.1	164.0	04-27-83			USW VH-2	U.S. GOVT
19	364814	1164854	957.0	457.2	152.4	457.2	165.9	01-11-87				USGS
20	364758	1163317	976.8				187.4	03-10-85			USW VH-1	USGS-WRD
21	364732	1163307	963.5	762.3	277.7	762.3	184.1	12-23-93	Z		USW VH-1	U.S. GOVT
22	364615	1164124	848.5	93.6	85.9	92.0	87.3	05-15-89			MW 313	US ECOLOGY
23	364615	1164124	848.4	145.4	140.5	143.9	92.7	10-10-90			U.S. ECOLOGY - MW600	U.S. ECOLOGY
24	364607	1164107	846.4	91.1	83.5	89.6	86.5	05-15-89			MW 310	US ECOLOGY
25	364603	1164121	847.0	91.7	84.1	90.2	86.7	05-15-89			MW 312	US ECOLOGY
26	364603	1164108	845.7	92.7	85.0	91.1	88.5	05-15-89			MW 316	US ECOLOGY
27	364601	1164141	848.3	110.0	103.9	110.0	103.9	10-10-90			U.S. ECOLOGY-W001	U.S. ECOLOGY
28	364600	1164109	844.8	98.8	90.8	96.9	92.3	05-15-89			MW 308	US ECOLOGY
29	364600	1164120	846.1	97.8	90.2	96.3	92.0	05-15-89			MW 314	US ECOLOGY
30	364600	1165112	1011.9	127.4				01-11-87		D		US BORAX

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
31	364559	1165219	1146.0	144.8			144.6	10-30-86				US BORAX
32	364557	1164345	859.5	122.5	116.4	122.5	103.0	08-21-83				USGS
33	364557	1164114	844.4	99.1	91.4	97.5	92.5	05-15-89			MW 311	US ECOLOGY
34	364557	1164115	844.2	131.1	126.5	129.5	98.1	10-10-90			U.S. ECOLOCY - MW604	U.S. ECOLOGY
35	364557	1164109	844.6	99.4	91.7	97.8	93.1	05-15-89			MW 309	US ECOLOGY
36	364557	1164111	844.4	99.4	91.7	97.8	93.1	05-15-89			MW 317	US ECOLOGY
37	364557	1164118	844.7	99.4	91.7	97.8	92.8	05-15-89			MW 315	US ECOLOGY
38	364557	1164112	849.7	175.3			85.9	07-12-62				NUCLEAR ENGIN
39	364557	1164130	847.3	175.3	138.1	174.6	96.0	06-27-61				US ECOLOGY
40	364557	1164130	847.3	175.3	138.1	174.6		01-07-87		P		NUCLEAR ENGINEERING CO. INC.
41	364557	1164137	846.7	115.5	107.9	114.0	108.5	10-10-90			U.S. ECOLOGY-W002	U.S. ECOLOGY
42	364556	1164135	1456.0	123.1	110.9	123.1	112.5	02-06-87			WELL MR3	USGS
43	364554	1164855	987.5	97.8			74.5	01-11-87				USGS
44	364553	1164138	846.4					00-00-00			WEST TRENCH 13	
45	364553	1164138	846.4					00-00-00			WEST TRENCH 14	
46	364553	1164138	846.4					00-00-00			WEST TRENCH 15	
47	364553	1164138	846.4					00-00-00			WEST TRENCH 16	
48	364553	1164137	846.4					00-00-00			EAST TRENCH 2	
49	364553	1164137	846.4					00-00-00			EAST TRENCH 3	
50	364553	1164137	846.4					00-00-00			EAST TRENCH 4	
51	364553	1164137	846.4					00-00-00			EAST TRENCH 5	
52	364553	1164137	846.4					00-00-00			EAST TRENCH 6	
53	364553	1164137	846.4					00-00-00			EAST TRENCH 7	
54	364553	1164137	846.4					00-00-00			EAST TRENCH 8	
55	364553	1164138	846.4					00-00-00			WEST TRENCH 9	
56	364553	1164137	846.4					00-00-00			EAST TRENCH 1	
57	364553	1164138	846.4					00-00-00			WEST TRENCH 10	
58	364553	1164138	846.4					00-00-00			WEST TRENCH 11	
59	364553	1164138	846.4					00-00-00			WEST TRENCH 12	
60	364552	1164133	847.3	126.2	86.9	126.2	109.4	02-27-85				USGS

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
61	364550	1164727	926.5	143.2			127.0	01-11-87				USGS
62	364514	1164829	981.4	115.8			108.1	01-01-87				USGS
63	364300	1163714	792.4	147.5				01-11-87		D		DALE, W.
64	364247	1164423	829.0	579.1	585.2	588.2	92.4	01-11-87				USGS
65	364246	1164457	829.0	426.7			85.8	01-11-87				USGS
66	364243	1164324	822.9	566.9	524.2	566.9	92.8	01-11-87				USGS
67	364130	1164112	800.9	292.6	283.5	286.5	82.2	08-03-86			NA-6 WELL BGMW-10	USGS
68	364130	1164112	804.6	98.4	97.5	98.4	82.1	01-11-87				USGS
69	364105	1163026	831.1	140.2	97.5	140.2	103.6	06-30-92			CIND-R-LITE WELL	CIND-R-LITE LAS VEGAS,NV
70	364044	1163753	773.5	54.3				00-00-00				
71	363934	1162558	816.5	74.1				00-00-00			VH-2	WASHBURN, RICHARD
72	363907	1162357	819.9	143.6	31.7	143.6	101.5	05-20-61				BOSSINGHAM, BEN
73	363858	1162541	804.6	23.8				11-11-53		D		WASHBURN, RICHARD
74	363842	1162353	811.3	163.1	109.4	163.1	111.2	01-03-64				COBB, FRED
75	363842	1162353	811.3	163.1	109.4	163.1	106.0	09-12-90				KAY, JOHN
76	363840	1162340	810.7	120.4	102.1	120.4	105.2	05-03-52				PEREIDRA, LOUISE
77	363840	1162350	813.8	153.9	109.7	153.9	109.7	02-28-55				WHELLOCK, BOB
78	363838	1162345	811.3	154.5	115.8	154.5	109.7	03-08-55				JOE RICHARDS
79	363838	1162345	811.3	154.5	115.8	154.5	109.7	03-08-55				PEREIDRA, LOUISE
80	363838	1162341	811.3	109.7				00-00-00				
81	363835	1162340	809.8	150.9	120.4	150.9	111.2	04-30-72			NDOT WELL	NEVADA HIGHWAY DEPARTMENT
82	363825	1162433	804.3	228.6	109.7	236.8	88.4	02-20-64			AIRPORT WELL	DOING, WARREN
83	363825	1162632	795.5	173.7	115.8	173.7	90.1	01-15-87				SHAW, JAMES H.
84	363815	1161759	931.4	243.8	224.0	243.8	205.4	07-21-62			TW-5	U.S. GOVT
85	363750	1162000						00-00-00				
86	363749	1161302	1807.4	112.8	102.1			10-01-59				JOE FALLIN
87	363744	1162637	783.9	151.8	151.8		77.8	07-12-62				WASHBURN, RICHARD
88	363740	1162639						00-00-00				
89	363715	1162445	853.4	32.0				00-00-00				NYE COUNTY LAND CO.
90	363709	1162646	775.7				71.7	01-15-87				WASHBURN, RICHARD

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
91	363707	1160103	992.4				297.2	10-00-51	W		ARMY 6	U.S. GOVT
92	363701	1162640	774.2	134.7	91.4	128.0	69.8	10-18-58				WASHBURN, RICHARD
93	363600	1160150	961.3	365.7	320.0	381.9	320.6	03-01-56			US ARMY	CAMP DESERT ROCK
94	363549	1163050	742.2	159.4	47.2	159.4	46.4	01-07-87			NYE COUNTY DEVELOPMENT CO.	
95	363548	1163537	731.8	76.2	39.6	76.2		02-13-86		O		WOOLDRIDGE, FRED
96	363547	1163243	735.1	76.2	36.6	76.2	41.4	01-07-87				KEEFE, FRED J.
97	363545	1163209	737.0	101.2	61.0	121.9	43.2	01-08-87				NICKELS, LESLIE
98	363540	1162408	771.1	94.8	46.0	94.8	45.1	09-16-63				MASON, L.
99	363540	1162408	771.1	94.8	46.0	94.8	48.9	03-13-73				MARRIOTT, EDWIN O.
100	363534	1160155	961.3	593.1	414.5		239.1	10-15-87			ARMY 1 WW	
101	363530	1160214	961.3	593.1	243.8	595.2	239.0	10-15-87	Z		ARMY 1 WW	U.S. GOVT
102	363528	1162842						00-00-00				
103	363527	1162925	744.0	106.7			47.1	01-16-87				
104	363526	1163529	730.0	73.1	36.6	73.1	38.1	03-01-63				DAVIDSON, ROBERT
105	363515	1163355	740.6	93.9	61.9	90.8	33.0	07-02-62				MANKINEN, EUGENE J.
106	363512	1163512	740.6	15.5				00-00-00				
107	363511	1163351	729.4				38.6	01-07-87		V		
108	363511	1163142	733.6	128.6	64.6	128.6	40.4	01-07-87				HEATH, DONALD O.
109	363503	1162840	740.6	61.0	48.8	61.0	48.5	01-12-87		R		RODELA, MANUEL
110	363503	1163515	727.8	50.3	42.7	48.8	37.4	01-07-87		R		KELLEY, ELVIS
111	363457	1163309	731.5	91.4	61.0	91.4	37.8	01-07-87				MONROE, WILLIAM R.
112	363457	1163423	740.6	73.8	30.5	76.2	35.1	01-07-87				DEFIR, JR., CHARLES C.
113	363456	1163525	727.0	74.1	30.5	76.2	36.6	03-24-93			DEFIR WELL	DEFIR, SR., CHARLES C.
114	363456	1162841						00-00-00				
115	363455	1163459	726.0	83.2	57.6	96.0		07-02-62			SCHULTZ, E. A.	
116	363445	1163246	727.8	97.5	45.7	97.5	35.4	01-07-87		R		MANKINEN, EDWIN H.
117	363442	1163633	725.7	61.0	42.7	61.0		01-07-87		P		STRICKLAND, BILL
118	363440	1162824	731.5	88.7			45.1	06-29-62				M MEESE
119	363437	1160108	1050.0	381.9	352.6	374.3	314.1	02-11-64			ARMY 6A	U.S. GOVT.
120	363434	1162751	741.8	91.4			45.7	07-15-58				SELBACH, THEO E.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
121	363432	1163442	723.3	105.8	32.0	105.8	33.2	01-20-84				CALDWELL, C. L.
122	363430	1162647	745.2	51.2			55.7	01-13-87				
123	363430	1162452	762.0	136.5			53.0	06-29-62				
124	363429	1163159	729.0	91.4	53.6	91.4	36.9	01-07-87				PIERCE, JAMES K.
125	363429	1162334	755.3				39.6	03-16-87				COOK, LEWIS C.
126	363428	1163215	740.6	87.8	39.6	92.0	34.1	07-04-62				PIERCE, JAMES K.
127	363428	1162812	738.2				47.8	01-12-87			AMARGOSA WATER	NYE COUNTY
128	363428	1162347	755.2	82.0	44.8	82.0	43.9	12-20-61			COOKS EAST WELL	COOK, LEWIS, C.
129	363428	1162403	754.2	95.1	54.3	91.1	33.9	04-09-91			COOKS WEST WELL	COOK, LEWIS C.
130	363425	1162350						00-00-00				
131	363425	1163320						00-00-00			FOX WAS KIRKER WELL	
132	363422	1162534	755.9	61.0			42.7	07-31-62				COOK, L.
133	363418	1162742						00-00-00				
134	363417	1162730	740.6	57.9			52.4	01-20-84				NYE COUNTY LAND
135	363415	1160926	846.4					00-00-00				
136	363411	1162738	739.1	97.5	85.3	97.5		00-00-00			AMARGOSA ELEMENTARY	NYE COUNTY SCHOOL DISTRICT
137	363411	1162729	739.1	91.4	61.0	91.4	50.3	11-19-80			AMARGOSA TOWN COMPLEX	NYE COUNTY
138	363410	1162611	743.7	204.2	64.6	204.2	52.5	01-15-87				NYE COUNTY DEVELOPMENT CO.
139	363410	1162400	749.8	53.6	44.8	87.2	26.2	03-16-87				COOK, LEWIS C.
140	363410	1162403	748.6	61.0	50.3	57.9	34.6	03-16-87				COOK, L. C.
141	363410	1162735						00-00-00				
142	363407	1162733	737.9	91.4	61.0	91.4	36.6	12-10-88			AMARGOSA VALLEY WATER	NYE COUNTY
143	363405	1163240						00-00-00				
144	363405	1163551	726.9	125.0	43.9	125.0		00-00-00				BOWLINE, ARNOLD
145	363405	1163345	723.9	76.2			27.4	08-15-58				SELBACH, EARL N.
146	363404	1162504	746.7	88.4	15.5	88.4	48.2	06-29-62				JOHNS, WILLARD
147	363404	1163239	724.2	45.7			31.5	02-26-74				MANKINEN, E. H.
148	363404	1163312	724.2	92.0	45.1	89.0	31.8	01-08-87				DANSBY, LEWIS N.
149	363402	1163442	721.4				31.9	01-07-87				
150	363401	1162617	740.6	118.9	45.7	128.0	49.8	01-20-84				JOHNS, WILMA A.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
151	363401	1163510	722.0	85.3	36.6	85.3	33.2	01-20-84				OVERHALSER, J. H.
152	363400	1163206	725.7	89.9	18.3	89.9	34.0	01-08-87				GALLAGHER, TOM
153	363356	1162945	726.9	128.0	42.7	128.0	35.4	06-28-62				HANKS, WILLIAM T.
154	363355	1162549	742.2	139.3	61.6	139.3	50.0	01-15-87				JOHNS, WILLARD
155	363353	1163033	727.2	76.2			37.2	01-08-87				PHILLIPS, TOM
156	363352	1163628	720.2	110.0	42.7	115.8	35.8	01-20-84				BELL, JOHN S.
157	363348	1162549	743.7	118.9	45.7	118.9	51.1	03-21-86				JOHNS, WILLARD
158	363338	1163031	722.3	91.4	30.5	88.4		01-08-87		D		PERRY, P. J.
159	363338	1163031	722.3	91.4	30.5	88.4	28.0	11-26-58				SCOTT, ARTHUR E.
160	363336	1162930	726.3	75.6			35.3	06-28-62				
161	363333	1160642	858.9				138.5	04-29-64	W		WELLS - STEWART	WELLS STEW
162	363332	1163250	720.5	61.0	27.4	61.0	29.4	01-08-87		R		SPEARS, I. C.
163	363330	1160700		243.8				00-00-00			PT OF ROCKS HWY-STEWART	
164	363323	1162944						00-00-00				
165	363320	1162809						00-00-00			ALBITRE WELL WAS THIEDE	
166	363316	1163624	719.3	53.3	30.5	53.3	30.1	01-07-87		R		THARP, ELDON
167	363315	1163031	721.7				28.8	05-24-56				DE LEE, MORRIS
168	363315	1163031	721.7				35.1	01-19-84				RECORDS, MARY
169	363313	1163025						00-00-00				
170	363311	1163139	718.7	100.6	24.4	100.6	33.1	01-10-87				GILLESPIE, HAROLD
171	363310	1162940	724.3	106.1			31.7	08-27-53			USBLM WELL	USBLM
172	363309	1162821	726.6	91.4	33.5	91.4	30.5	10-31-59				TRAVIS, EARL
173	363309	1162821	726.6	91.4	33.5	91.4	39.2	01-13-87				TRAVIS, MAX/EARL, JACK/CLEMENT, PAUI
174	363309	1162650	730.0	106.7	45.7	106.7	42.8	01-13-87				DALTON, RALPH C.
175	363303	1162929	723.6	146.3	39.6	146.3		12-11-63		D		MEETER, LEO
176	363303	1163001	722.6	221.0	30.5	221.0	2.1	02-15-55				MEETER, L.
177	363303	1162513	732.4	152.4	36.6	152.4	32.8	01-13-87				DALTON, RALPH C.
178	363303	1163001	722.6	221.0	30.5	221.0	2.1	02-15-55				DELEE, MORRIS
179	363303	1163001	722.6	221.0	30.5	221.0	34.8	01-10-87				RECORDS, HENRY H.
180	363303	1162929	723.6	146.3	39.6	146.3	24.4	01-25-55				RECORDS, R. D.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
181	363302	1163218	718.7	100.6	30.5	100.6	28.6	03-23-60				GILLESPIE, HAROLD
182	363252	1163230						00-00-00			RANCHO AMARGOSA WELL	
183	363249	1162919						00-00-00				
184	363248	1163028	718.4				32.6	01-10-87				DE LEE, MORRIS
185	363247	1163129	715.6	91.4	27.4	91.4	32.2	01-10-87				GILLESPIE, HAROLD
186	363246	1162922	720.1	93.6			30.0	07-09-62				L MEETER
187	363243	1163541	714.4				26.7	01-08-87				HOLTZ, CHARLES
188	363242	1162839	721.1	125.0	47.5	125.0	33.5	03-10-59				EASTABROOK, E. R.
189	363242	1163019	718.7	91.4	30.5	91.4	32.1	01-10-87				RECORDS, RUBY D.
190	363239	1163109	715.3	88.1			25.6	07-09-62				RECORDS, R.
191	363239	1163144	746.7	153.3	82.3	153.3	23.7	07-07-62				GILLESPIE, VELEPIA
192	363237	1163033	718.4	128.3	42.7	128.3	28.2	12-02-60				MEETER, LEO J.
193	363237	1162929	720.2	91.4	36.6	93.6	24.4	12-23-54				RECORDS, H. H.
194	363237	1162929	720.2	91.4	36.6	93.6	24.4	12-23-54				DAVIS
195	363237	1162929	720.2	91.4	36.6	93.6	24.4	12-23-54				DELEE, MORRIS H.
196	363237	1162929	720.2	91.4	36.6	93.6	32.7	01-10-87				MEETER, LEO J.
197	363236	1162631	722.3	112.2	37.2	112.2	34.4	07-07-61				CYPERT, KEN
198	363236	1162631	722.3	112.2	37.2	112.2	36.9	02-12-86				PINKERTON, CHARLES W.
199	363234	1163217	713.5	147.8	51.8	147.8	22.9	07-07-62				GILLESPIE, HAROLD
200	363230	1162605	723.3				36.8	01-13-87				BRIGHT, ROGER
201	363223	1163459	713.4	80.5	36.3	77.7	19.0	07-04-62				DOWNEY, JOHN W.
202	363219	1162958	715.6	90.2	57.9	81.7	27.4	04-11-66				DAVIS, KENNETH R.
203	363219	1162958	715.6	90.2	57.9	81.7	27.4	04-11-66				DELEE
204	363219	1162958	715.6	90.2	57.9	81.7		01-14-87	O			BETTLES, G.
205	363219	1163024						00-00-00				
206	363218	1163134	712.0	42.1			30.6	01-19-84				G BETTLES
207	363217	1162658	721.7	76.2	30.5	74.7	36.1	01-13-87				CLAIRE, BUDDINGTON R.
208	363217	1162718	721.7	91.4	36.6	91.4	35.4	01-13-87				WICHNER, MILTON
209	363214	1162848	717.8	61.0	53.3	61.0	31.7	01-14-87				BROCKETT, PETE
210	363214	1161335	733.0	311.5	211.8	228.6	13.5	10-18-66			AMARGOSA TRACER NO. 1	U.S. GOVT

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
211	363213	1161339	731.5	249.3			12.0	03-15-87				USGS
212	363213	1161340	733.0	188.7			13.3	03-15-87				USGS
213	363213	1161337	733.0	202.4			13.5	03-15-87				USGS
214	363213	1161338	732.2	205.7	189.0	205.7	12.5	11-21-66			TRACER WELL 3	USGS
215	363211	1163032	714.4	50.0	18.3	45.7	25.6	10-02-21				LEALAND LAND & WATER
216	363211	1161339						00-00-00				
217	363211	1163032	714.4	50.0	18.3	45.7	25.6	10-02-21				BETTLES, G.
218	363211	1163032	714.4	50.0	18.3	45.7	25.6	10-02-21				DE LEE, MORRIS
219	363211	1163032	714.4	50.0	18.3	45.7	30.9	01-08-87		R		T & T RANCH
220	363211	1162946	715.6	54.9				12-11-63		D		LEALAND LAND & WATER
221	363211	1161339						00-00-00			AMARGOSA TR HOLE 2 SUMP	
222	363211	1161339						00-00-00			AMARGOSA TR HOLE 2	
223	363210	1163138	712.6	61.0			23.7	01-01-52				DAVIS
224	363210	1163138	712.6	61.0			30.0	01-13-87				LEALAND LAND & WATER
225	363209	1163140	701.0	60.3			23.3	02-24-75				GORDON BETTLS
226	363200	1163233	710.1	61.0	19.8	61.0	16.5	03-12-56				DELPH, M. M.
227	363155	1163233	707.7	71.9	32.3	71.9	18.3	01-27-66				BARR, MILDRED A.
228	363153	1162216	723.6	30.5			30.6	03-15-87			IMV BENTONITE MINE WELL	
229	363150	1163116	709.2	15.5			20.5	07-09-62				BETTLES, G.
230	363148	1162510	716.2	59.4	41.1	59.4	40.7	01-15-87				WILBURN, M. H. /GRUBB, MARJORIE
231	363148	1163238	708.5	57.3			22.5	01-10-87				DELPH, M. M.
232	363146	1162720	717.5	91.4	35.7	91.4	29.5	06-26-62				WICHNER, MILTON
233	363146	1162527	716.5	91.4			25.1	06-26-62				BILSBOROUGH, DONALD L.
234	363145	1163106	710.1	61.0				08-16-78		D		LEALAND LAND & WATER
235	363138	1161416	722.5	8.8			21.3	01-01-07	D			MILLER
236	363138	1162505		91.4	42.7	91.4	32.6	06-26-62				RECORDS, MORNA
237	363138	1162505		61.0	45.7	61.0	38.1	06-25-61				MARTIN, JACK A.
238	363134	1162920	710.1	55.2	31.1	55.2	25.5	01-14-87				OWENS, JIM
239	363133	1162501	713.2	48.8			37.9	01-12-87				GOOD
240	363132	1162400						00-00-00				

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
241	363132	1162753	715.9	61.0	32.6	61.0	33.8	01-18-84				MASON, EVA
242	363132	1162857	712.6	25.0			24.7	06-26-62				GAMETT, LOU W.
243	363132	1162852	710.8				25.4	01-14-87				
244	363129	1162417	713.2	61.0	30.5	61.0	36.1	03-18-87				NICKELL, JERALD W.
245	363129	1162425	712.6	61.0	45.7	61.0	37.3	01-15-87				MILLS, JOHNNIE
246	363129	1162529	713.2	61.0	53.3	61.0	36.8	01-12-87				LEIS, L.
247	363128	1163024						00-00-00				
248	363128	1162531	713.5	68.0	30.5	68.0	25.9	03-15-59				MCCOY, ED
249	363123	1163000	709.0	46.6			21.2	06-26-62				G BETTLES
250	363121	1161123	745.0	45.7	29.0	45.7	30.3	08-30-62				DOOLEY, WILLIAM J.
251	363120	1163000	708.6	49.4				03-19-92		O	BETTLES	BETTLES, GORDON W.
252	363117	1163036	708.9	49.1	16.8	61.0	25.3	01-10-87		V		BETTLES, BILLIE
253	363117	1163036	708.9	49.1	16.8	61.0	14.0	02-15-56				BOYD, DAVID C.
254	363115	1162420	740.6				36.7	01-18-84				BRADLEY
255	363111	1162756	712.0	91.4	30.5	91.4	24.5	06-26-62				HODGES, MITCHELL
256	363111	1162902	709.5	26.8				06-26-62		D		HOUSSELL, J. KELL
257	363109	1162526	708.0	61.0	33.5	61.0	30.2	06-27-62				BERRY, N. O.
258	363100	1162814	707.1	77.1	28.6	75.6	24.7	01-14-87				STEPHENS, MELVIN M.
259	363058	1162705	707.1	113.4	48.8	113.4	29.3	01-16-87				HONIG, MARILYN
260	363058	1163128	703.7	91.4	21.3	91.4	19.9	01-10-87				BARR, CHARLES M.
261	363058	1162857	706.2	24.4			19.4	06-26-62				HOUSSELL, J. KELL
262	363054	1162704	706.5	91.4	32.0	91.4	27.7	07-06-62				HONIG, MARILYN
263	363053	1162720	706.5	92.0	32.3	89.0	25.0	04-16-68				NYE COUNTY DEVELOPMENT CO.
264	363053	1162710	704.7				27.7	01-14-87				
265	363050	1161050	732.4	41.1	18.3	41.1	17.7	02-01-61				WHITE, WILLIAM R.
266	363044	11627327	40.6	97.8			25.5	06-20-62				HONIG, P.
267	363044	1163050	701.9	124.0	50.3	124.0	16.5	01-14-69				WATSON, HELEN
268	363039	1163035	702.8				21.1	01-12-87				BETTLES, GORDON W.
269	363031	1161047	732.4	41.1	18.3	41.1	17.7	02-01-60			WHITE WELL	WHITE
270	363030	1162800	706.2				20.7	01-20-56				MOORE, JR., WILLIAM

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
271	363029	1162804	706.2	27.7			25.7	06-26-62				MOORE, JR., WILLIAM
272	363029	1162924	704.1	20.7			18.0	12-22-55				CLEVELAND, ELDON L.
273	363028	1162702	702.2	106.7	48.8	106.7	26.8	03-21-86				NYE COUNTY DEVELOPMENT CO.
274	363028	1163025						00-00-00				
275	363028	1162530	701.3	91.4	27.4	61.0	24.8	06-26-62				BERRY, N. O.
276	363027	1162700	702.2	179.8	67.1	179.8	25.0	10-17-62				NYE COUNTY DEVELOPMENT CO.
277	363027	1162952	702.5	47.2	20.1	47.2	20.1	01-12-87				TYNAN, J. C.
278	363026	1162756	705.6	80.5	50.6	77.4	28.2	01-12-87				STRAUSS, HERMAN
279	363026	1161604	710.1				24.5	03-09-72				SPRING MEADOWS INC.
280	363026	1161604	710.1				30.7	03-09-72				
281	363020	1162900	701.0	24.4			19.5	01-17-56				MOORE, PATRICIA
282	363017	1162530	702.5	61.0	36.6	61.0	18.3	05-07-57				BERRY, HELEN S.
283	363009	1163027	702.5	34.1	22.2	34.1	14.6	11-17-57			HALLOWELL WELL	HALLOWELL, DAVID
284	363005	1162910	700.4				17.4	01-10-56				CLEVELAND, ELDON L.
285	363002	1163107	694.9	65.2			13.3	02-14-55				ERICKSON, JULIUS
286	363002	1163107	694.9	65.2			13.6	03-13-73				HOYLE, W. G.
287	363002	1163048	698.0				17.4	01-12-87				
288	363001	1162541	698.6	58.2			21.6	06-26-62				
289	362958	1163022	701.0	61.9	18.3	61.6	17.0	01-19-84				BETTLES, ALVIN E.
290	362957	1162549	698.0				24.2	01-12-87				MARTINSON, JOSE
291	362947	1162520	694.0	64.0	32.0	64.0	21.0	01-12-87			MOUNTAIN VIEW HOMES	DOUGLAS COUNTY
292	362946	1163023	698.9	60.0	9.1	60.0	12.2	04-24-60				BETTLES, ALVIN
293	362946	1162724	698.0				21.1	09-14-62				NYE COUNTY DEVELOPMENT CO.
294	362946	1163023	701.0	32.0	13.1	32.0	12.2	06-20-60				BETTLES, ALVIN
295	362940	1162658						00-00-00				
296	362939	1162654	688.8				21.1	01-12-87				
297	362938	1163001					11.9	12-02-55				DAVIS, H.
298	362938	1163041	698.0					00-00-00			AMARGOSA WATER CO	
299	362938	1162700	695.2	91.4	30.5	91.4	23.2	01-12-87				AMARGOSA FARMS
300	362938	1162931	701.0	64.0	9.1	64.0	16.7	06-25-62				DAVIS, T.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
301	362937	1162533	693.3	48.8	13.7	48.8	20.1	01-12-87				BETTLES, GORDON
302	362936	1162812	696.3	18.0			17.6	05-11-62				CLEVELAND, ANETTA L.
303	362936	1162515		91.4	24.4	91.4	18.0	03-20-62				SIEGEL, LEE
304	362935	1163025	701.0	25.9			12.8	12-06-55				BETTLES, ALEX E.
305	362934	1162959	701.0	152.4			12.4	06-25-62				H DAVIS
306	362932	1162741	696.6	146.3	45.7	146.3	47.4	06-20-62				GEERS, RAYMOND T.
307	362932	1162741	696.6	146.3	45.7	146.3	24.4	07-14-59				WALL, STEPHEN E.
308	362930	1162959	698.0				21.8	01-12-87				
309	362929	1160857	729.7	65.5			11.2	02-04-60			CHERRY PATCH WELL	CLARK, HERSHEL & ETAL
310	362927	1161026	725.4	38.1			10.7	10-12-84				MORRELL, JEANNINE
311	362921	1163025	696.1	25.9				00-00-00				
312	362920	1163110						00-00-00				
313	362917	1163047	698.0				14.5	01-12-87		R		
314	362911	1162949	701.0				13.4	12-03-55				DAVIS, H.
315	362911	1162928	701.0	121.9			17.5	06-25-62				T DAVIS
316	362910	1162814	701.0	15.2			17.7	01-19-84				CLEVELAND, ANETTA L.
317	362909	1162842	701.0	18.6			14.9	06-25-62				CLEVELAND, FRANK R.
318	362908	1163015	701.0	62.5			15.5	10-31-62				
319	362906	1161951	690.3	47.9	2.1	47.9	0.9	07-22-93	F		SODA SPRING WELL	SPRING MEADOWS INC
320	362905	1160923	730.0	41.1	27.7	41.1	10.7	10-29-84				MADAME
321	362905	1160923	730.0	41.1	27.7	41.1		01-16-87		P		BUTLER, MIKE
322	362905	1162740	692.8				19.3	01-12-87				
323	362904	1162808						00-00-00				
324	362902	1163047	696.4	62.5			21.6	01-12-87	R	R		
325	362901	1162028	690.3	84.7	3.7	84.7	0.9	01-21-67				NYE COUNTY LAND COMPANY
326	362858	1160915	730.7	25.9			11.3	06-19-62				
327	362857	1161947	690.9	101.2	12.2	101.2		00-00-00			ROGERS SPRING WELL 2	SPRING MEADOWS INC.
328	362855	1161950	690.6	61.6	30.5	61.6	0.2	04-22-70			ROGERS SPRING WELL	SPRING MEADOWS INC.
329	362850	1162026	685.8	195.4	14.6	213.3	3.7	03-01-67				NYE COUNTY LAND COMPANY
330	362848	1162646	690.3	120.7	18.3	120.7	18.9	03-16-67			GILGANS NORTH WELL	STEELMAN, JAMES, C.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
331	362840	1161926	697.9	146.3	30.5	144.8		06-14-62		F		NYE LAND COMPANY
332	362839	1162637						00-00-00				
333	362836	1160930	729.5	42.7	11.9	42.4	10.1	10-30-61				DANIELS, JAMES M.
334	362835	1162641	690.9	126.5	16.8	126.5	17.2	09-29-67			GILGANS SOUTH WELL	STEELMAN, JAMES C.
335	362833	1160206						00-00-00				
336	362819	1161855	710.8	28.0		28.0		00-00-00			PURGATORY SPRING WELL	SPRING MEADOWS INC.
337	362811	1162024	687.3	183.5	18.3	151.5	4.6	03-01-67			NYE COUNTY LAND COMPANY	
338	362809	1162131	673.6	170.1	8.5	170.1	3.4	03-01-67				NYE COUNTY LAND COMPANY
339	362802	1162239	666.0	30.5	4.6	30.5	4.6	03-21-64			TRENARY WELL	TRENARY, DONALD G.
340	362758	1162112	673.6	61.6	2.1	61.6	1.5	06-10-68				SPRING MEADOWS INC
341	362757	1162024	682.7	152.4		91.4	5.2	05-01-71				
342	362757	1162024	682.7	152.4	30.2	152.4	6.7	04-21-70				SPRING MEADOWS INC
343	362755	1161904	721.5	37.5		30.5		05-02-90	F		FIVE SPRINGS WELL	SPRING MEADOWS INC.
344	362755	1161904	721.4	27.4		27.4	1.8	06-26-68			FIVE SPRINGS SHALLOW WELL	
345	362755	1162020	687.9	17.4			5.8	07-14-93			MINE SHAFT	
346	362745	1162040	682.7	61.6		61.6	2.4	06-30-68				SPRING MEADOWS INC
347	362744	1161243	709.6	7.6				00-00-00			AMARGOSA FLAT CORRAL WELL	
348	362743	1163134	683.9					00-00-00				
349	362740	1161210						00-00-00				
350	362738	1161049	720.8	6.7			4.8	06-09-62			BUCK MINING WINDMILL WELL	BUCK MINING CO.
351	362736	1162857	691.9	536.7	591.0	594.0	17.0	01-11-87				USGS
352	362736	1162857	691.9	30.5	29.6	30.5	15.7	01-11-87				USGS
353	362727	1163222	683.9	37.8			13.0	06-19-62				MORRIS & VAN DER LENDON
354	362726	1163144	683.3	91.4			11.2	01-13-87				MORRIS & VAN DER LENDON
355	362725	1163059	681.9	119.8			10.0	01-13-87				MORRIS & VAN DER LENDON
356	362715	1162100	672.1					03-17-87		F		
357	362715	1163223	685.0	91.4			9.8	08-03-86				MORRIS & VAN DER LENDON
358	362705	1163223	684.2				9.0	08-03-86				
359	362705	1163150	682.7				9.4	01-11-86				
360	362705	1163009	680.0	7.0			6.3	06-18-62				

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
361	362702	1163222	684.2	86.6			13.7	08-03-86				MORRIS & VAN DER LENDON
362	362650	1163115	681.1	91.4			9.8	06-19-62				MORRIS & VAN DER LENDON
363	362648	1162014	675.1	137.2	27.4	137.2	0.9	01-26-73			PETERSON WELL	SPRING MEADOWS INC
364	362648	116274668	8.8	46.0	36.3	46.0		01-15-87		P		INDUSTRIAL MINERAL VENTURES
365	362642	1162125	661.7	156.7	45.7	152.4		01-19-84				NYE COUNTY LAND CO.
366	362642	1162054	664.4					00-00-00				SPRING MEADOWS INC
367	362555	1162053	658.0	61.6	42.7	54.9	2.3	03-17-87			GARNERS WELL	
368	362554	1162040	664.4	36.6	18.3	36.6	1.8	05-25-67				MERCURY FARMS INC.
369	362535	1162442						00-00-00				
370	362532	1161727	719.3				0.5	05-15-93			DEVILS HOLE NR ASH MEADOWS	
371	362532	1161727	719.3				0.6	05-21-93			DEVILS HOLE NR ASH MEADOWS	
372	362530	1161715	732.7	61.0	14.6	61.0	14.8	04-15-80			DEVILS HOLE WELL	NYE COUNTY LAND CO
373	362530	1162140	650.7				0.1	01-15-87				
374	362529	1161558	737.6					12-21-93		O		
375	362527	1161608	741.5	80.8			23.2	05-01-70			SPRING MEADOWS 12	SPRING MEADOWS INC.
376	362526	1161818	705.6	72.5			15.5	09-01-70			SCHOOL SPRING WELL	
377	362525	1162743	664.4	14.3	6.1	7.0	3.8	01-13-87				USGS
378	362525	1162745	664.9	3.0			2.8	06-18-62				
379	362525	1162743	667.8	332.2	324.0	324.9	2.1	08-01-86			NA-9 WELL	USGS
380	362521	1161608	744.3	65.5			29.0	01-01-68			SPRING MEADOWS 11	SPRING MEADOWS INC
381	362518	1161913	672.1	157.3				03-24-6	F		SPRING MEADOWS 6	
382	362517	1162340	731.5	6.4			4.4	06-16-62				
383	362459	1162510						00-00-00				
384	362452	1162510	665.4	122.5			23.5	01-18-84				B EMBRY
385	362451	1162541						00-00-00				
386	362443	1162636	669.0	0.9				00-00-00				CALIFORNIA DIVISION OF HIGHWAYS
387	362443	116263	6658.3				7.6	01-13-87	R	R		
388	362434	1161	811685.2	85.3	25.0	85.3	5.5	09-26-69			SPRING MEADOWS 9	SPRING MEADOWS INC.
389	362432	1161657	706.7	152.4	42.4	152.4	7.3	02-13-70			POINT OF ROCKS NORTH WELL	SPRING MEADOWS INC.
390	362425	1161649	704.1	61.9	1.2	61.9	7.6	07-08-68				SPRING MEADOWS INC.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
391	362420	1161637	711.2	178.6	40.2	142.3	20.9	04-22-70			POINT OF ROCKS SOUTH WELL	NYE COUNTY LAND CO.
392	362420	1161637	711.2	178.6	40.2	142.3	20.9	04-22-70			POINT OF ROCKS SOUTH WELL	SPRING MEADOWS INC.
393	362415	1162705	659.9				9.2	01-13-87				
394	362412	1161545	713.2				20.5	03-09-72				SPRING MEADOWS INC.
395	362405	1161539	708.6	152.4	30.5	152.4	1.8	08-27-69			SPRING MEADOWS 17	SPRING MEADOWS INC.
396	362405	1161545	709.5	195.7		195.7	3.7	03-30-72			SPRING MEADOWS 16	SPRING MEADOWS INC.
397	362405	1161552	707.4	120.4	47.2	120.4	4.6	07-25-69			SPRING MEADOWS 1	SPRING MEADOWS INC.
398	362404	1161630	702.2	152.4	30.5	152.4	1.8	08-27-69			SPRING MEADOWS 4	SPRING MEADOWS INC.
399	362402	1161722	691.9	287.7	128.0	287.7	3.7	03-01-71				SPRING MEADOWS INC
400	362401	1161618	707.1					00-00-00				NYE COUNTY LAND COMPANY
401	362358	1161601	704.1					03-09-72		P		SPRING MEADOWS INC.
402	362358	1161615	702.5	85.9	12.2	85.9		12-01-88		F		SPRING MEADOWS INC.
403	362357	1161605	703.4	126.5	18.3	91.4	4.9	05-03-69			SPRING MEADOWS 2	SPRING MEADOWS INC.
404	362356	1161807	684.2	259.7	64.0	256.0		03-17-87		F		NYE COUNTY LAND CO.
405	362352	1161552	703.4	237.7	3.0	237.7		00-00-00			SPRING MEADOWS 3	SPRING MEADOWS INC.
406	362310	1161709	686.4	45.7	15.2	45.1	-0.9	09-22-79			HARRIS WELL	HARRIS, JACK
407	362303	1161745	676.6	4.6			1.8	07-23-93			IMV BOREHOLE	
408	362250	1161750	673.6				1.7	08-16-93			HALE BOREHOLE	
409	362250	1162651	664.4	512.0	502.9	505.9	23.5	10-02-87				
410	362250	1162651	664.4	37.8	30.5	31.4	22.9	10-02-87				
411	362250	1161753	673.0	30.5	11.0	30.5	1.9	08-16-93			HALE WELL	HALE, DEAN
412	362230	1163929	831.6	198.1	30.51	98.1	249.9	05-16-83			TRAVERTINE POINT 1 WELL	US BORAX
413	362153	1161715	676.0	81.4	24.4	81.4	1.8	06-19-65			EAST WEST MINERALS	
414	362153	1161715	676.0	81.4	24.4	81.4	1.8	06-19-65			ASH MEADOWS LODGE	
415	362153	1161715	674.2	53.3	24.4	53.3	1.5	12-08-79			ASH MEADOWS LODGE WELL	PENNINGTON, J.
416	362140	1162610	646.1	603.5	594.3	597.4	21.2	01-13-87				USGS
417	362105	1163128	703.7	62.8		62.8	19.5	03-18-59				BARR, CHARLES M.
418	362103	1161600	699.5	364.8	355.4	358.4	4.1	10-29-86			GS-2 DEEP	USGS
419	362103	1161600	699.5	36.6	35.7	36.6	4.0	10-29-86			GS-2 SHALLOW	USGS
420	362054	1160134	896.7	131.1	112.8		110.9	06-01-71				RIEHL AL W

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
421	362036	1160150	868.6	128.3	88.4	128.3	92.0	02-17-76				NOBLE KAY
422	362033	1162552	639.4				11.3	01-13-87				
423	362033	1162552	640.0	5.8				00-00-00				
424	362021	1161330	740.7	481.6	472.1	475.2	26.7	10-29-86			GS-1 WELL	USGS
425	362021	1161330	740.7	36.6			24.8	01-14-87				USGS
426	361957	1161752	716.6	609.6	600.1	603.2	64.7	10-29-86			GS-3 WELL	USGS
427	361957	1161752	716.6	48.8	47.9	48.8	25.1	08-23-93			GS-3 SHALLOW	USGS
428	361909	1160134	811.6	227.4			33.6	02-25-75				CNUC WELL 41
429	361908	1160134	811.3				36.4	02-17-76		S		PREF.EQUITIES
430	361907	1160135	810.1				33.6	03-08-77				
431	361903	1160120	812.3	234.7			35.3	02-17-76				TRI STATE
432	361900	1160308	810.4	45.7			34.1	02-17-76				GREGORY LESLIE H
433	361857	1160231	808.0	143.2	36.6	96.0	31.8	02-17-76				CNUC WELL 43
434	361853	1160156	808.6	114.3	61.0	114.3	31.6	02-25-75				CNUC WELL 42
435	361850	1161938	679.7	35.1			29.8	12-20-93			GA-8C	USGS
436	361850	1161938	679.7	66.1			30.0	12-20-93			GA-8D	USGS
437	361850	1161935	679.7	58.2			31.5	12-20-93			GA-8E	USGS
438	361850	1161933	679.7	76.8			33.6	12-20-93			GA-8F	USGS
439	361850	1161933	679.7	33.5			33.3	12-20-93			GA-8M	USGS
440	361849	1161942	679.7	64.9			27.7	12-20-93			GA-8B	USGS
441	361845	1161939	676.6	32.6			29.7	12-20-93			GA-8K	USGS
442	361845	1161937	676.6	25.9			25.8	12-20-93			GA-8J RATHOLE	
443	361845	1161937	676.6	30.3				12-20-93	D	D	GA-8J	
444	361835	1162245	620.8	2.1			1.4	06-19-62				CALIFORNIA DIVISION OF HIGHWAYS
445	361833	1162200	621.8					00-00-00			WELL-15	
446	361833	1162202	619.6	8.5				12-22-93		F	FRANKLIN LAKE 1	CALIFORNIA DIVISION OF HIGHWAYS
447	361826	1160228	802.8	139.3			26.7	02-17-76				CNUC WELL 44
448	361820	1162513	624.5	48.8			2.7	03-18-87				CALIFORNIA DIVISION OF HIGHWAYS
449	361817	1162447	622.3	68.6	48.8	61.0	1.0	01-22-79			DEATH VALLEY JCT WELL	ETTIE, LEE
450	361808	1162735	668.1	41.1			39.5	03-18-87				AMERICAN BORATE CORP.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
451	361802	1160016	811.9	120.4			32.4	02-17-76				STRAVER-DAWSON
452	361801	1160017	811.0	46.0			31.5	02-17-76				STRAVER-DAWSON
453	361800	1162443	621.2	21.0			1.1	01-14-87		R		LEE, E.
454	361800	1162450	620.8	42.4			0.7	06-19-62				LEE, E.
455	361753	1160009	813.2	120.4			31.9	12-16-93			STARVER	STARVER, DAWSON
456	361745	1162155	618.1	2.1			0.5	06-21-62				CALIFORNIA DIVISION OF HIGHWAY
457	361745	1162155	618.1					00-00-00				CALIFORNIA DIVISION OF HIGHWAYS
458	361741	1160010	811.3	314.5			31.5	02-17-76				STRAVER-DAWSON
459	361734	1160122	799.5	214.0			21.5	02-17-76				WOLFSON-FOWLER
460	361729	1160055	804.0	246.3	70.7	155.4	24.9	03-17-76				WOLFSEN
461	361724	1163242	823.9	609.6	600.1	603.2	116.3	08-04-86			S-1 WELL	
462	361724	1163242	819.9	137.2	134.1	137.2	121.2	01-13-8				
463	361723	1160003	811.3	164.6			30.9	02-17-76				STAVERS
464	361718	1162238	616.3	17.1				01-14-87		F	WELL-16	
465	361709	1160124	795.8	106.7			20.6	02-16-76				BELLS ALVIN
466	361709	1160051	800.4	182.9	30.5		13.4	06-18-55				BELLS ALVIN
467	361709	1160042	802.2	144.8	21.3	144.8	20.4	02-04-62				FOWLER H M
468	361705	1162135	614.1	2.4			-1.2	08-24-62				CALIFORNIA DIVISION OF HIGHWAYS
469	361704	1160303	787.3				12.0	02-18-76				
470	361703	1162150	613.7	0.9				06-21-62	F	F		CALIFORNIA DIVISION OF HIGHWAYS
471	361700	1162202	615.6	2.4			1.0	07-09-86			GS-9	
472	361700	1162202	616.9	4.9			-0.6	07-09-86			GS-10	
473	361700	1162202	614.4	1.8			0.8	07-09-86			GS-11	
474	361700	1162202	615.4	8.8			-2.3	06-24-83		G	GS-8	
475	361647	1160439	785.1	19.5			10.5	03-08-77				USGS
476	361642	1160123	795.5	152.4			14.6	04-03-61				BELLS ALVIN
477	361640	1163155	613.1	2.7			-0.2	08-24-62				CALIFORNIA DIVISION OF HIGHWAYS
478	361638	1160437	785.4	10.5			6.5	02-04-62				USGS
479	361636	1160009	805.9	335.9			6.9	11-26-52				BELLS ALVIN
480	361627	1162212	612.9	8.3			-1.6	07-09-86			GS-13	

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
481	361627	1162212	612.9	6.4			-0.1	07-09-86			GS-14	
482	361627	1162212	612.9	8.8			0.9	07-09-86			GS-12	
483	361616	1160125	794.6	61.0			12.9	02-04-62				CADWELL H.
484	361616	1160003	807.7	199.6			24.5	02-17-76				BELLS ALVIN
485	361615	116002	6801.6	163.7			21.0	02-17-76				BELLS ALVIN
486	361612	1160051	807.7	155.4			19.4	02-17-76				BELLS ALVIN
487	361610	1162237	611.6	7.3			4.0	03-22-86				GS-19
488	361608	1160441	783.3	155.4	18.3	155.4	9.7	02-17-76				BELLS ALVIN
489	361606	1162127	611.7	3.7			0.5	03-21-86			GS-2	
490	361605	1162127	612.0	2.1			0.5	03-21-86			GS-1	
491	361553	1162121	611.4	6.8			1.2	07-09-86			GS-4	
492	361553	1162121	611.5	6.5			0.2	07-09-86			GS-5	
493	361553	1162121	611.4	1.6			1.2	07-09-86			GS-6	
494	361553	1162121	612.5	8.2			-0.5	07-09-86			GS-7	
495	361553	1162121	611.4	9.8			-0.3	07-09-86			GS-3	
496	361552	1160009	803.4	261.2	73.1		18.9	02-17-76				BELLS ALVIN
497	361548	1160054	796.7	157.0			16.5	02-18-76				MCCOWAN J.
498	361548	1160145	787.6	153.6			10.7	02-18-76				LEWIS WARREN
499	361536	1160051	794.9	235.6			14.9	03-18-76				BLOSSER E.
500	361533	1161119	748.9	8.2			6.2	01-28-76				USGS
501	361530	1160010	137.2					00-00-00			WILCOX WELL	
502	361530	1160301	782.4				8.3	02-18-76				
503	361525	1160018	799.1	217.0				03-15-53	F			BLOSSER T.
504	361523	1160051	794.6	236.2				03-18-87	P		HARMER	HARMER, R. S.
505	361523	1160156	787.6	262.1			6.2	02-04-62				SANDSTEAD F W
506	361522	1160447	782.1	152.4	91.4	152.4	8.7	02-18-76				BELLS ALVIN
507	361522	1160123	790.3	85.3	73.1		10.7	02-20-73				BLOSSER T.
508	361517	1163224	853.4				20.0	01-09-86				AMERICAN BORATE CORP.
509	361517	1162201	610.5	1.2				00-00-00				CALIFORNIA DIVISION OF HIGHWAYS
510	361516	1162201	610.7	3.3			2.0	07-10-86			GS-16	

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
511	361516	1162201	610.6	9.8			1.9	07-10-86			GS-17	
512	361516	1162201	610.6	6.9			1.9	07-10-86			GS-15	
513	361513	1160550	789.4	30.5			14.8	02-17-76				LASS CARL
514	361513	1163131	829.0				31.3	01-09-86				AMERICAN BORATE CORP.
515	361512	1160532	785.1	13.4			11.6	02-17-76				USGS
516	361512	1160532	784.8	9.8			7.8	02-04-62				USGS
517	361455	1160349	779.6	36.6			7.0	02-18-76				JOHNSON H A
518	361451	1160025	801.6	251.4	51.2		13.1	02-18-76				SHURTLIFF L N
519	361449	1160442	779.9				7.6	02-18-76				
520	361446	1160103	794.0				14.4	02-18-76				
521	361446	1160056	795.2	206.6	79.2		9.7	02-18-76				MURPHY D J
522	361444	1162157	610.3	8.2	7.9	8.2	2.8	07-10-86			GS-18	
523	361443	1162331	610.9	4.6			3.1	07-10-86			WELL-13	
524	361429	1160018	797.3	234.4	58.5		11.1	02-18-76				PECHSTEIN
525	361429	1160049	793.7	226.2			13.1	02-18-76				PECHSTEIN E B
526	361417	1162240	609.6	12.2			3.2	03-13-86				
527	361415	1160918	750.7	61.0			5.5	01-18-76				COHEN ROBERT
528	361415	1162221	609.5	10.7			1.9	07-10-86			WELL- 5	
529	361415	1162221	609.6	8.2			2.3	06-14-85				
530	361415	1162221	609.6	4.6			1.4	06-14-85				
531	361415	1162221	609.5	10.7			1.9	07-10-86				
532	361415	1160926	755.0				6.7	08-23-93				
533	361415	1162302	610.2	18.0			1.4	07-10-86			WELL-14	
534	361413	1162212	609.1	6.1			3.2	06-14-85				
535	361413	1162212	609.6	6.1			3.2	03-18-86				
536	361413	1162212	609.6	9.4			2.9	06-14-85				
537	361412	1162230	607.7	12.2			2.3	07-10-86			WELL-10	
538	361411	1161003	748.9	8.2			5.3	01-28-76				USGS
539	361409	1160639	795.5	201.8				02-04-62	F			LOTTERER BLAGG
540	361408	1160918	749.8	51.8			2.6	01-28-76				

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
541	361406	1161106	749.5	12.8			7.1	01-28-76				USGS
542	361405	1160332	779.6	61.0	9.1	51.2	11.0	12-16-93			ROOKRIDGE AND CARRADO	ROOKRIDGE & CARRADO
543	361401	1160421	777.5	61.0			5.0	02-03-62				STUB I A
544	361355	1160904	751.3	36.6			3.7	01-28-76				LYON CHALMER
545	361352	1160053	791.8				12.5	02-18-76				
546	361334	1160156	786.3	118.9			9.1	02-18-76				CADWELL H L
547	361333	1160509	775.4	60.3	9.1		6.5	02-03-62				BONANITO J
548	361331	1160036	793.4				11.5	02-18-76				
549	361331	1160018	795.8	304.8	33.5		7.7	02-04-62				LOTTERER JACK J
550	361327	1162249	608.5	4.5			3.9	07-10-86			GS-20	
551	361327	1160018	795.5	198.1	61.0		-8.0	02-04-62				LOTTERER J F
552	361323	1160304	779.9	48.8	24.4	48.8	9.1	02-09-82			ANCHOR INN MOBILE HOME PRK	ANDERSON, BERNARD
553	361321	1160418	776.6				7.5	02-18-76				
554	361318	1160155	784.8	30.5	15.2	30.5	6.7	12-08-68			RANCHO VISTA NO 3	WULFENSTEIN, RAY
555	361315	1160213	785.1					00-00-00			SUNSET MOBILE HOME PARK	
556	361315	1160208	783.0					00-00-00			SUNSET MOBILE HOME PARK	
557	361313	1160612	777.2	22.9			13.2	02-20-76				USGS
558	361311	1160255	780.9				8.9	02-18-76				
559	361308	1160105	789.4	121.9			5.5	02-18-76				OWENS BOB
560	361308	1160124	788.8	121.9			7.8	02-27-75				KELLY JOE
561	361308	1160052	791.2	128.6			7.8	02-18-76				ROOT E W
562	361306	1160332	776.9	45.7	18.3	45.7	8.5	04-10-75			BASIN PARK RANCHOS	WULFENSTEIN, RAY
563	361249	1162243						00-00-00			SP-50	
564	361248	1161138	748.9	10.4	10.1		7.1	01-28-76				USGS
565	361246	1160300	781.5	243.8			11.6	06-05-74				HORGAN &
566	361246	1160331	777.8	76.2			8.8	02-18-76				LACOMP
567	361246	1160300	781.5	243.8			6.2	02-17-54				LYNSH CHARLES
568	361242	1160042	790.9				8.5	02-28-75				RUID BOB
569	361241	1160114	787.9					00-00-00			BIG VALLEY MOBILE HOME PRK	BIG VALLEY MOBILE HOME PARK
570	361231	1160229	782.7	41.1			7.1	02-04-62				FORD S

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O C	Site Name	Owner
571	361225	1160108	787.9					00-00-00		BIG FIVE TRAILER PARK	
572	361222	1160300	779.6	67.1			8.7	02-18-76			FORD STANLEY
573	361222	1160044	790.9				8.0	02-18-76			
574	361218	1160919	749.8	9.1			3.3	03-30-60			USGS
575	361218	1160051	790.3	160.0	30.5		5.0	02-18-76			WILLIAMS W J
576	361217	1160210	781.8	274.9			6.7	02-04-62			HORGAN L A
577	361217	1160100	797.9	106.7	12.2		7.5	02-18-76			WILLIAMS W. T
578	361216	1160537	774.2	167.9	18.3		11.6	02-18-76			WOODS R L
579	361216	1160609	771.4	152.4	11.0		16.1	02-18-76			TUDOR H D
580	361213	1160155	785.7	21.3			7.1	02-04-62			HORGAN
581	361213	1160155	785.7	5.5			5.0	03-23-54			HORGAN L A
582	361210	1162257	630.9	39.6	36.6	39.6	23.4	01-14-87			
583	361210	1162257	630.9		417.6	423.7	24.0	01-14-87			
584	361209	1160614	780.2	91.4	11.0	91.4	19.8	12-16-93		TUDOR	TUDOR, H. D.
585	361204	1160603	771.4	152.4	9.8	152.4	17.1	12-16-93		TURNER	TURNER, W. M.
586	361158	1162405	673.6	106.7	103.6	106.7	94.0	01-14-87			
587	361158	1162405	673.6	426.7	417.6	423.7	89.5	01-14-87			
588	361150	1160350	775.1					00-00-00		RANCHO VISTA NO 4-1	WULFENSTEIN, RAY
589	361149	1160021	798.5	106.7			3.0	02-19-76			WILLIAMS W. T
590	361146	1160428	774.8				8.4	02-18-76			
591	361145	1160346	775.1	61.0	36.6	54.9	14.9	01-23-93		RANCHO VISTA NO 4-2	WULFENSTEIN, RAY
592	361118	1160043	792.4	106.7	21.9		1.7	02-19-76			WILLIAMS W. T
593	361034	1160459	768.1	61.0	7.9		9.5	02-18-76			NV HWY DPT
594	361031	1160516	767.4	16.5			7.0	02-07-62			CRUCIE J J
595	361030	1160517	767.4				9.1	02-20-76			COLLINS FRED
596	361030	1160143	783.9	9.1			6.1	02-19-76			
597	361029	1160141	784.2	60.3			6.4	02-03-62			GORDON C. R
598	361014	1160442	768.7	77.1			10.7	02-18-76			FORD J W
599	361012	1160447	768.1	77.1	7.6	38.1	7.3	09-28-51		WHITE	WHITE, JOHN A.
600	361012	1160447	768.1	77.1	7.6	38.1	14.2	12-16-93		WHITE	FORD, J.

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
601	360951	1160722	754.6	14.3	13.7		10.7	04-17-63				USGS
602	360930	1160520	761.0	12.8			7.1	03-07-77				USGS
603	360930	1160520	761.0	6.7			5.7	02-03-62				USBLM
604	360845	1160225	773.8	17.4			13.1	02-03-62				USGS
605	360845	1160225	773.8	19.5			15.8	03-07-77				USGS
606	360756	1160035	787.3	19.5			13.2	03-07-77				USGS
607	360751	1160559	758.3	31.1	30.5		18.1	02-05-62				USGS
608	360748	1160523	758.6				18.4	03-07-77				BOWMAN OSCAR
609	360702	1160335	764.7	25.9	25.3		16.3	02-20-76				USGS
610	360445	1160154	765.0	23.5	22.9		17.3	01-23-76				USGS
611	360232	1160036	765.3	61.0	60.7		35.6	11-01-77				USGS
612	363532	1162254	772.9	446.8							FELDERHOFF-FEDERAL 5-1	US BLM
613	363707	1162426	783.9	1530.0							FELDERHOFF-FEDERAL 25-1	US BLM

APPENDIX B

80 POTENTIAL HYDROLOGIC CHARACTERIZATION RECOMPLETION WELLS

Appendix water level codes under the heading descriptor:

O - original
C - current

Codes:

D - dry
E - recently flowing
F - flowing
G - nearby site flowing
H - nearby site recently flowing
I - injection of water
J - nearby site injected with water
N - measurement discontinued
O - obstruction above water surface
P - pumping
R - recently pumped
S - nearby site pumping
T - nearby site recently pumping
V - foreign substance on water surface
W - well destroyed
X - surface-water affects
Z - other (explain in remarks)

Note: Latitude and Longitude (deg, min, sec)
Elevation (m above mean sea level)
Total Depth, Perforation Interval and Water Level (m below land surface)
Date (month/day/year)

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
6	365520	1163703	1198.1	487.7	243.8	487.7	201.2	09-01-89			GEXA WELL 4	USNGS GEXA
8	365445	1163839	1243.8	213.3	63.4	213.3	41.1	09-18-88			GEXA WELL 3	GOLD GEXA
14	365128	1164920						00-00-00			ETH I-4	
15	365106	1164932		364.2			219.1	08-10-88			II-1	
16	365105	1164819						00-00-00			II-2	
19	364814	1164854	957.0	457.2	152.4	457.2	165.9	01-11-87				USGS
20	364758	1163317	976.8				187.4	03-10-85			USW VH-1	USGS-WRD
21	364732	1163307	963.5	762.3	277.7	762.3	184.1	12-23-93	Z		USW VH-1	U.S. GOVT
30	364600	1165112	1011.9	127.4				01-11-87		D		US BORAX
31	364559	1165219	1146.0	144.8			144.6	10-30-86				US BORAX
32	364557	1164345	859.5	122.5	116.4	122.5	103.0	08-21-83				USGS
43	364554	1164855	987.5	97.8			74.5	01-11-87				USGS
61	364550	1164727	926.5	143.2			127.0	01-11-87				USGS
62	364514	1164829	981.4	115.8			108.1	01-01-87				USGS
63	364300	1163714	792.4	147.5				01-11-87		D		DALE, W.
64	364247	1164423	829.0	579.1	585.2	588.2	92.4	01-11-87				USGS
65	364246	1164457	829.0	426.7			85.8	01-11-87				USGS
66	364243	1164324	822.9	566.9	524.2	566.9	92.8	01-11-87				USGS
67	364130	1164112	800.9	292.6	283.5	286.5	82.2	08-03-86			NA-6 WELL BGMW-10	USGS
68	364130	1164112	804.6	98.4	97.5	98.4	82.1	01-11-87				USGS
69	364105	1163026	831.1	140.2	97.5	140.2	103.6	06-30-92			CIND-R-LITE WELL	CIND-R-LITE LAS VEGAS, NV
70	364044	1163753	773.5	54.3				00-00-00				
71	363934	1162558	816.5	74.1				00-00-00			VH-2	WASHBURN, RICHARD
72	363907	1162357	819.9	143.6	31.7	143.6	101.5	05-20-61				BOSSINGHAM, BEN
73	363858	1162541	804.6	23.8				11-11-53		D		WASHBURN, RICHARD
82	363825	1162433	804.3	228.6	109.7	236.8	88.4	02-20-64			AIRPORT WELL	DOING, WARREN
83	363825	1162632	795.5	173.7	115.8	173.7	90.1	01-15-87				SHAW, JAMES H.
84	363815	1161759	931.4	243.8	224.0	243.8	205.4	07-21-62			TW-5	U.S. GOVT
85	363750	1162000						00-00-00				
86	363749	1161302	1807.4	112.8			102.1	10-01-59				JOE FALLIN

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
87	363744	1162637	783.9	151.8		151.8	77.8	07-12-62				WASHBURN, RICHARD
88	363740	1162639						00-00-00				
89	363715	1162445	853.4	32.0				00-00-00				NYE COUNTY LAND CO.
90	363709	1162646	775.7				71.7	01-15-87				WASHBURN, RICHARD
92	363701	1162640	774.2	134.7	91.4	128.0	69.8	10-18-58				WASHBURN, RICHARD
94	363549	1163050	742.2	159.4	47.2	159.4	46.4	01-07-87				NYE COUNTY DEVELOPMENT CO.
98	363540	1162408	771.1	94.8	46.0	94.8	45.1	09-16-63				MASON, L.
102	363528	1162842						00-00-00				
103	363527	1162925	744.0	106.7			47.1	01-16-87				
119	363437	1160108	1050.0	381.9	352.6	374.3	314.1	02-11-64			ARMY 6A	U.S. GOVT.
135	363415	1160926	846.4					00-00-00				
138	363410	1162611	743.7	204.2	64.6	204.2	52.5	01-15-87				NYE COUNTY DEVELOPMENT CO.
161	363333	1160642	858.9			138.5		04-29-64	W		WELLS-STEWART	WELLS STEW
163	363330	1160700	243.8					00-00-00			PT OF ROCKS	HWY-STEWART
176	363303	1163001	722.6	221.0	30.5	221.0	2.1	02-15-55				MEETER, L.
178	363303	1163001	722.6	221.0	30.5	221.0	2.1	02-15-55				DELEE, MORRIS
179	363303	1163001	722.6	221.0	30.5	221.0	34.8	01-10-87				RECORDS, HENRY H.
210	363214	1161335	733.0	311.5	211.8	228.6	13.5	10-18-66			AMARGOSA TRACER NO. 1	U.S. GOVT
214	363213	1161338	732.2	205.7	189.0	205.7	12.5	11-21-66			TRACER WELL 3	USGS
228	363153	1162216	723.6	30.5			30.6	03-15-87			IMV BENTONITE MINE WELL	
279	363026	1161604	710.1				24.5	03-09-72				SPRING MEADOWS INC.
280	363026	1161604	710.1				30.7	03-09-72				
305	362934	1162959	701.0	152.4			12.4	06-25-62				H DAVIS
309	362929	1160857	729.7	65.5			11.2	02-04-60			CHERRY PATCH WELL	CLARK, HERSHEL & ETAL
320	362905	1160923	730.0	41.1	27.7	41.1	10.7	10-29-84				MADAME
350	362738	1161049	720.8		6.7		4.8	06-09-62			BUCK MINING WINDMILL WELL	BUCK MINING CO.
351	362736	1162857	691.9	536.7	591.0	594.0	17.0	01-11-87				USGS
352	362736	1162857	691.9	30.5	29.6	30.5	15.7	01-11-87				USGS
379	362525	1162743	667.8	332.2	324.0	324.9	2.1	08-01-86			NA-9 WELL	USGS
409	362250	1162651	664.4	512.0	502.9	505.9	23.5	10-02-87				

Site No	Lat	Long	Land Elev	Total Depth	Perforation top	Perforation bottom	Water Level	Measure Date	Note O	Note C	Site Name	Owner
410	362250	1162651	664.4	37.8	30.5	31.4	22.9	10-02-87				
412	362230	1163929	831.6	198.1	30.5	198.1	249.9	05-16-83			TRAVERTINE POINT 1 WELL	US BORAX
416	362140	1162610	646.1	603.5	594.3	597.4	21.2	01-13-87				USGS
417	362105	1163128	703.7	62.8		62.8	19.5	03-18-59				BARR, CHARLES M.
422	362033	1162552	639.4				11.3	01-13-87				
423	362033	1162552	640.0		5.8			00-00-00				
424	362021	1161330	740.7	481.6	472.1	475.2	26.7	10-29-86			GS-1 WELL	USGS
425	362021	1161330	740.7	36.6			24.8	01-14-87				USGS
426	361957	1161752	716.6	609.6	600.1	603.2	64.7	10-29-86			GS-3 WELL	USGS
427	361957	1161752	716.6	48.8	47.9	48.8	25.1	08-23-93			GS-3 SHALLOW	USGS
458	361741	1160010	811.3	314.5			31.5	02-17-76				STRAVER-DAWSON
461	361724	1163242	823.9	609.6	600.1	603.2	116.3	08-04-86			S-1 WELL	
496	361552	1160009	803.4	261.2	73.1		18.9	02-17-76				BELLS ALVIN
518	361451	1160025	801.6	251.4	51.2		13.1	02-18-76				SHURTLIFF L N
524	361429	1160018	797.3	234.4	58.5		11.1	02-18-76				PECHSTEIN
525	361429	1160049	793.7	226.2			13.1	02-18-76				PECHSTEIN E B
549	361331	1160018	795.8	304.8	33.5		7.7	02-04-62				LOTTERER JACK J
587	361158	1162405	673.6	426.7	417.6	423.7	89.5	01-14-87				
612	363532	1162254	772.9	446.8							FELDERHOFF-FEDERAL 5-1	US BLM
613	363707	1162426	783.9	1530.0							FELDERHOFF-FEDERAL 25-1	US BLM

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