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Key Words:
Vadose Zone
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Performance Assessment

Retention:
Permanent

Evaluation of E-Area Slit Trench Performance Under As-Filled Conditions

Prepared by:

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June 2003

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Savannah River Site
Aiken, SC 29808

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Executive Summary

Waste acceptance criteria (WAC) for the E-Area Slit Trenches are based on a Performance Assessment (PA) and subsequent Special Analyses. Because the PA was first performed prior to operation of the Slit Trenches, the eventual waste distribution and forms were unknown and hypothetical waste loading scenarios were analyzed. Generally each radionuclide was assumed to be uniformly distributed throughout the area covered by Slit Trenches #1 and #2, and reside in a solid waste form that results in an instantaneous leaching of the entire inventory to soil moisture in trenches. Slit Trenches #1 are now nearly full, and thus the actual distribution and form of solid wastes buried there are approximately known. This Special Study assesses the performance of E-Area Slit Trenches under as-filled conditions in Slit Trenches #1, and compares predicted peak aquifer concentration to PA results. Results are limited to tritium, which is the dominant contributor to the current sum-of-fractions for Slit Trenches #1.

In Slit Trenches #1, tritium comprised 85% of the sum-of-fractions through 4/16/03, and 82% of the H-3 inventory is associated with 232-F D&D operations. Tritium activity from 232-F is concentrated primarily in trench compartments 14-1B and 14-1C with a combined length of approximately 200 ft. In this area, the tritium density (Ci/ft^2) is roughly 10 times higher than the average. Although non-uniform, the as-filled distribution of tritium inventory in Slit Trenches #1 is not expected to result in peak concentrations that are significantly higher than a uniform distribution, as assumed in the PA. This conclusion is specific to the particular distribution of tritium in Slit Trenches #1.

Solid waste from 232-F is substantially in the form of concrete rubble. As discussed by Hochel and Clark (2003), tritium embedded within such concrete is expected to leach to trench soil moisture much more slowly than assumed in PA modeling. This study indicates the peak fractional flux to the water table would be approximately 4 times lower for tritium in cementitious wastes compared to instantaneous leaching. Corresponding peak H-3 groundwater concentrations are about 3 times lower for cementitious (e.g. 232-F) wastes. Consideration of waste form could offer an important opportunity to reduce conservatism in PA-based Waste Acceptance Criteria for tritium or other radionuclides.

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Acronyms and Abbreviations

D&D	Decontamination and Decommissioning
LAW	Low Activity Waste
PA	Performance Assessment
pCi/L	picocuries per liter
WAC	Waste Acceptance Criteria
WITS	Waste Information Tracking System
WSRC	Westinghouse Savannah River Company

Introduction

Waste acceptance criteria (WAC) for the E-Area Slit Trenches are based on a Performance Assessment (PA) and subsequent Special Analyses (WSRC 2002; McDowell-Boyer et al. 2000; Cook 2002). Because the PA was first performed prior to operation of the Slit Trenches, the eventual waste distribution and forms were unknown and hypothetical waste loading scenarios were analyzed. Generally each radionuclide was assumed to be uniformly distributed throughout the area covered by Slit Trenches #1 and #2 (Figure 1), and reside in a solid waste form that results in an instantaneous leaching of the entire inventory to soil moisture in trenches.

Slit Trenches #1 are now nearly full, and thus the actual distribution and form of solid wastes buried there are approximately known. The purpose of this Special Study is to assess the performance of E-Area Slit Trenches under as-filled conditions in Slit Trenches #1, and compare predicted peak aquifer concentration to PA results.

Table 1 lists isotopes contributing greater than 1% of the PA limit to the sum-of-fractions as of 4/16/03. The total sum-of-fractions for Slit Trenches #1 was 0.882 on 4/16/03, so other isotopes only contribute an additional 0.028 to the 0.854 impact in Table 1. Tritium is the dominant contributor to the sum-of-fractions, comprising 85% (0.748 ÷ 0.882). Because tritium effectively controls the performance of Slit Trenches #1, only tritium is considered for further analysis.

In a recent "Point Source" study, Collard (2002) analyzed the effects of hypothetical non-uniform waste inventory distributions for I-129 in two forms. Because the PA aquifer model grid (Figure 1) was too coarse to represent point sources down to the desired scale of 4 individual B-25 boxes (4' depth × 4' height × 6' width for each box), a higher-resolution, local-scale flow and transport model was developed (Figure 2). The PA and Point Source models are compared in Figure 3. For consistency with the prior analysis of non-uniform waste loadings, the models and analysis approach developed by Collard (2002) were adopted as the starting point for the present Special Study of as-filled conditions.

In the sections that follow, the spatial distribution of tritium inventory in Slit Trenches #1 is estimated from Waste Inventory Tracking System (WITS) data and facility operation information under as-filled conditions through 4/16/03 (Sink 2003; Appendix). An alternative model of tritium release from the bottom of a slit trench, more appropriate for the cementitious form of 232-F burials, is considered based on the work of Hochel and Clark (2003). Results from PORFLOW (Analytical & Computational Research Inc. 2000) vadose and saturated zone simulations using the as-filled spatial distribution and trench release model are then compared to the PA and related simulations.

Table 1. Isotopes contributing greater than 1% of the PA limit to the sum-of-fractions for Slit Trenches #1 on 4/16/2003.

Primary Isotopes Of Concern	Slit Trenches #1 Activity (Ci)	Slit Trenches PA Limit (Ci)	Fraction Of PA Limit
H3	4.71E+00	6.3E+00	7.48E-01
I129 F Area Filtercake	8.14E-05	3.2E-03	2.55E-02
NP237	1.09E-03	4.8E-02	2.26E-02
C14	6.09E-02	2.7E+00	2.25E-02
I129 Generic	1.87E-05	1.0E-03	1.87E-02
U238	1.24E-01	7.4E+00	1.67E-02
		Sum-of-Fraction	**8.54E-01**

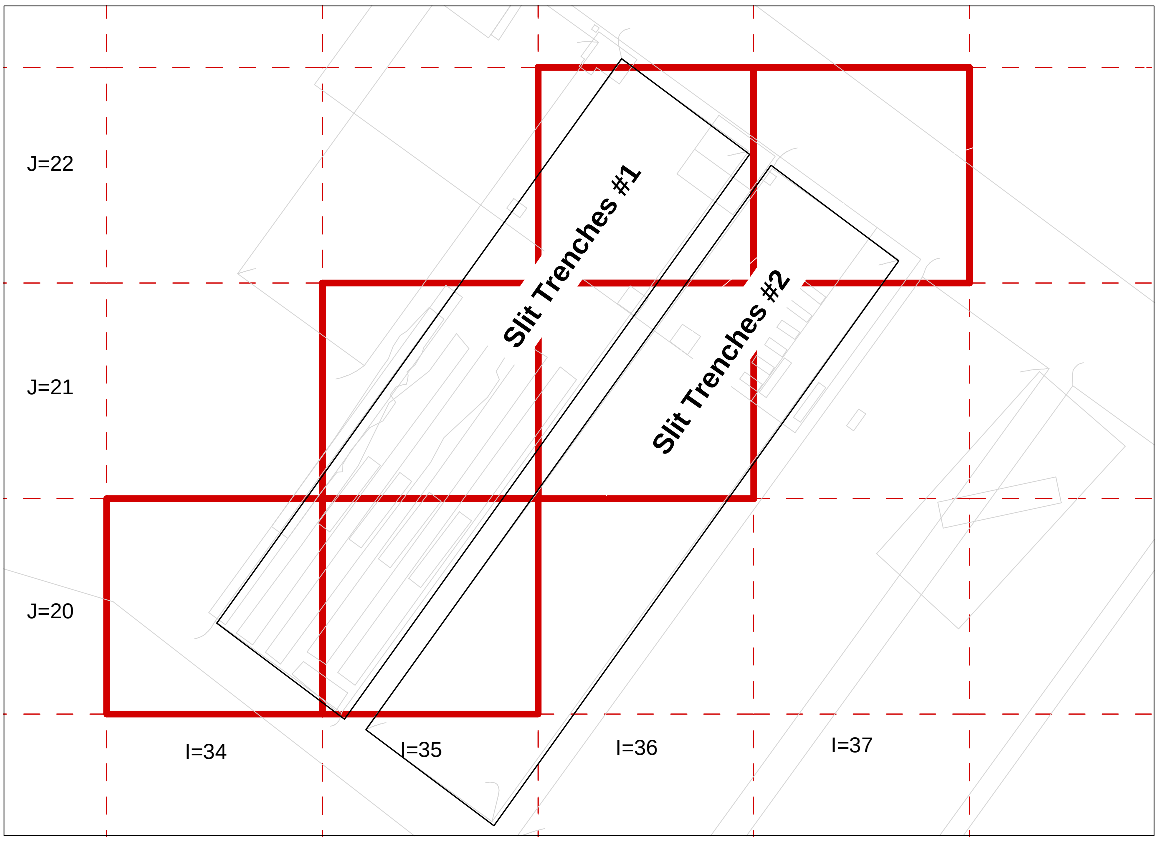


Figure 1. Slit Trenches #1 and #2 and corresponding representation in the aquifer (saturated zone) PORFLOW transport model.

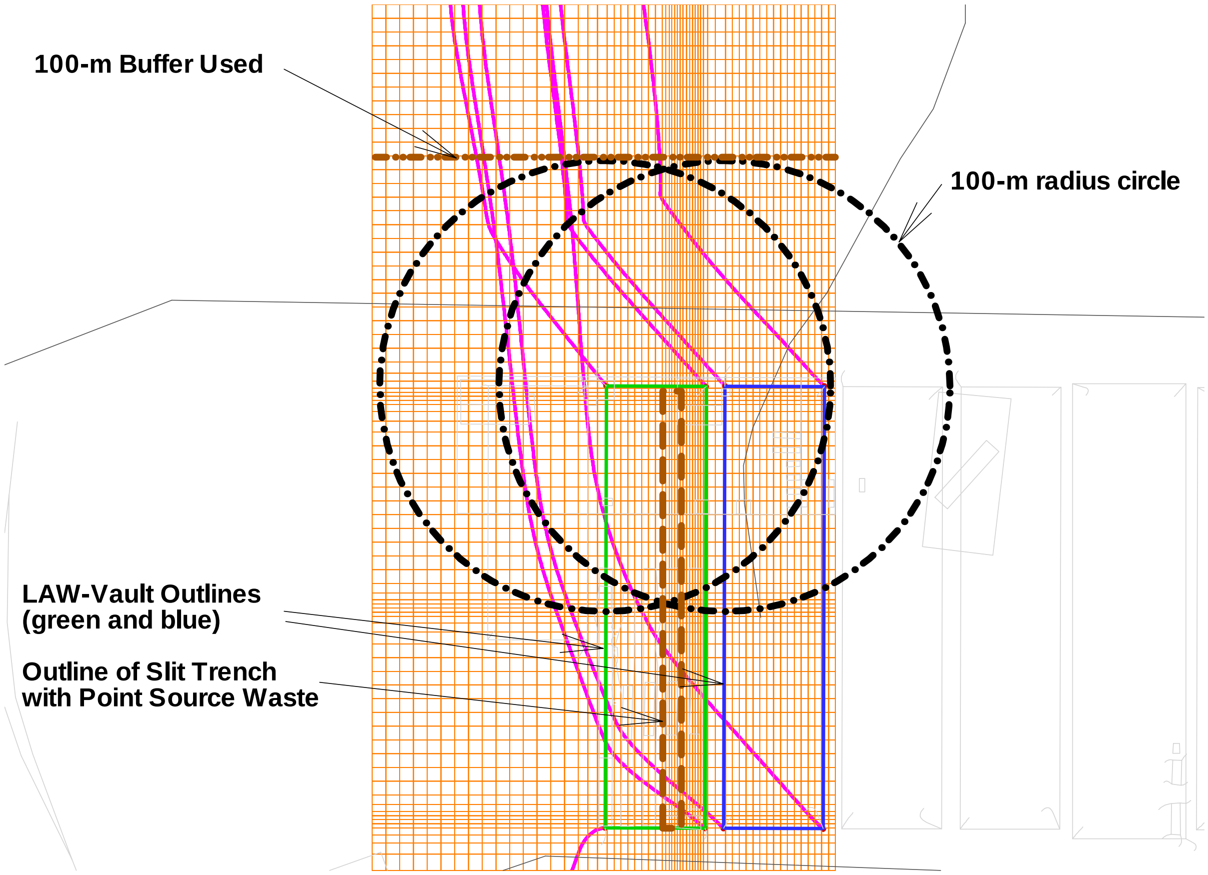
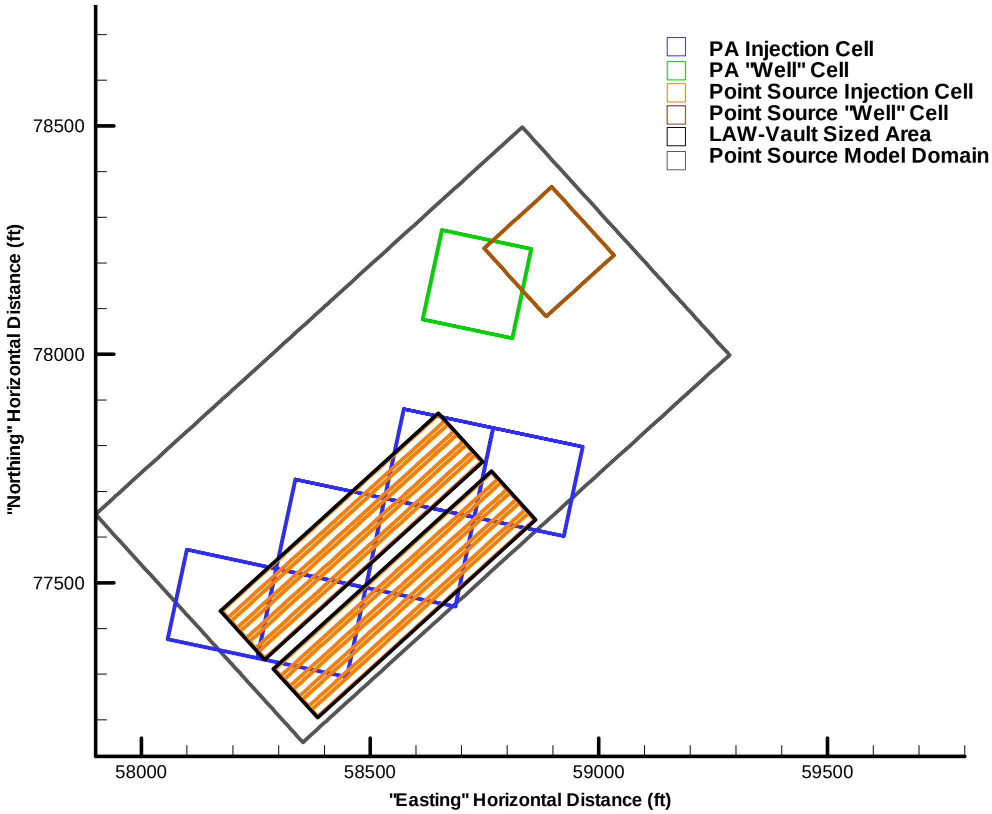
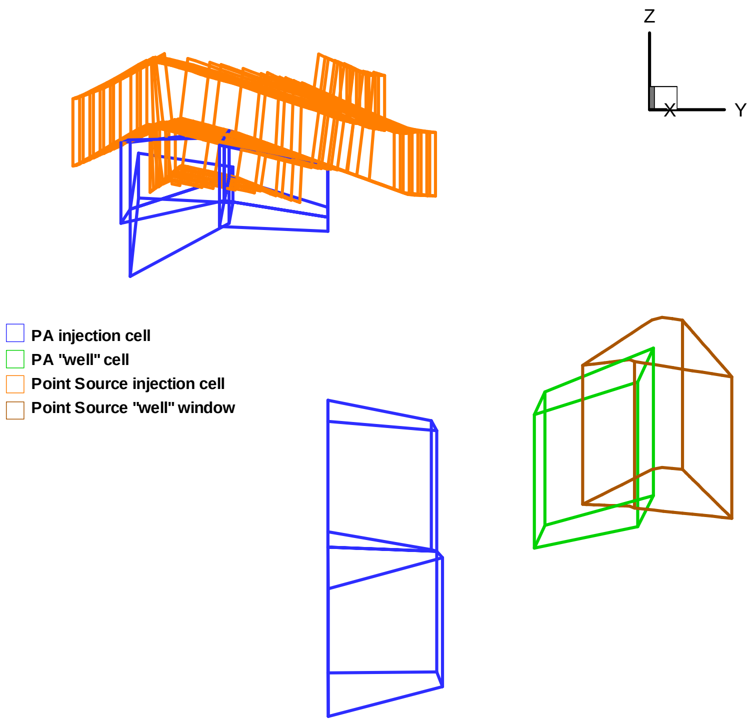


Figure 2. Computational grid for Point Source Special Study (reproduced from WSRC-TR-2002-00117).



(a)



(b)

Figure 3. Comparison of PA and Point Source Special Study models; (a) plan view; (b) cross-sectional view (reproduced from WSRC-TR-2002-00117).

Spatial Distribution of Tritium Burials

The main source of tritium in Slit Trenches #1 originates from 232-F D&D operations. According to the Waste Information Tracking System (WITS) and operations records, portions of Slit Trenches 14-1 and 14-2 within Slit Trenches #1 received 237 packages of 232-F building rubble with a total activity of 3.90 Ci. Waste stream calculations indicate that tritium (H-3) accounts for 99.28% of the total activity, or 3.87 Ci. As of 4/16/03, the total tritium inventory in Slit Trenches #1 was 4.71 Ci (Sink 2003). Burials associated with 232-F D&D thus comprise 82% of the total through that date.

WITS data and facility operation information provided by D. Sink and S. Reed (Sink 2003; Appendix) were used to determine the relative as-filled distribution of tritium in Slit Trenches #1. Four individual compartments received waste from 232-F D&D Rubble operations: 14-1B, 14-1C, 14-2A, and 14-2B (Figure 4). Documented activities from the individual shipments of waste were assigned to the slit trench compartments based on the dates of operation of the compartments. For example, 14-1B operated in January of 1997 therefore 232-F D&D shipments received for December 1996 and January 1997 were assumed to have been buried in this compartment. For each compartment, the total activity from these waste shipments was multiplied by 99.28% to estimate a tritium activity. Tritium not associated with 232-F D&D (0.84 Ci or 18%) was assumed to be uniformly distributed through the remaining area. The tritium activity for each compartment was then compared to the average tritium density calculated for Slit Trenches #1 to obtain a relative tritium distribution.

Table 2 summarizes the data used to determine the relative tritium distribution (relative density) depicted in Figure 4. Slit trench compartments 14-1B and 14-1C contain the highest concentration of tritium, with average activities per area that are 8.6 and 12.7 times higher than the average density for Slit Trenches #1. Over the remaining trench area, the density of H-3 is approximately 0.2 times the average loading.

In the prior Point Source study, Slit Trenches #1 and #2 were assumed to be comprised of 10 individual trenches, each 20 ft wide by 640 ft long (Figure 3a). The gap between trenches was 10 ft. The Point Source model representation is similar to the actual trench configuration in Slit Trenches #1 and adequate for the present study. For consistency, the same representation of slit trenches is used for PORFLOW modeling in this study.

Figure 5 shows the model representation of Slit Trenches #1 and #2 in greater detail, and identification labels for each trench or trench segment defined in modeling. The analysis shown in Table 2 was repeated for the modeled trench configuration to account for differences in geometry between Figures 4 and 5. Also, the PA assumes that tritium is uniformly distributed between Slit Trenches #1 and #2, and this assumption is retained in the current analysis. The activity estimated to reside in each physical compartment identified in Table 2 is preserved in the model representation of the same compartment. The results for a 1 Ci total inventory are summarized in Table 3. Note that the physical area of Slit Trenches #1 is approximately 52,000 ft^2, compared to 64,000 ft^2 for the same trenches as modeled. The area difference leads to differences in the relative density factors listed in Tables 2 and 3 (e.g. 12.7 versus 15.2 for compartment 14-1C).

Table 2. Approximate as-filled distribution of H-3 in Slit Trenches #1.

Slit Trench Compartments	Start of Shipments	End of Shipments	Vol of Waste Received (m^3)	Tritium Activity (Ci)	% of Total Tritium Activity	Area (ft^2)	Activity /Area (Ci/ft^2)	Relative density
Total for LAW Vault 14				4.7100	100%	51909	9.07E-05	
14-1B	12/96	01/97	174	1.5491	32.89%	1978	7.83E-04	8.6
14-1C	02/97	03/97	775	2.0376	43.26%	1767	1.15E-03	12.7
14-2A	04/97	05/97	441	0.2822	5.99%	2122	1.33E-04	1.5
14-2B	06/97	06/97	194	2.88E-04	0.01%	2083	1.38E-07	0.002
Total for compartments receiving 232-F D&D waste				3.8692	82.15%	7950	4.87E-04	5.4
Total for remaining compartments in LAW Vault 14				0.8408	17.85%	43959	1.91E-05	0.21

Table 3. Model distribution of H-3 in Slit Trenches #1 and #2 for the as-filled scenario.

Slit Trenches #1

ID	Alias	Length	Area	232-F?	232-F Activity	Area	Area Fraction	Other Activity	Total Activity	Activity Fraction	For 0.5 Ci Total	Relative Density
14-1-1		188	3760	n		3760	6.7%	0.0563	0.0563	1.2%	0.0060	0.20
14-1-2	14-1B	97	1940	y	1.5491				1.5491	32.9%	0.1644	10.85
14-1-3	14-1C	91	1820	y	2.0376				2.0376	43.3%	0.2163	15.21
14-1-4		264	5280	n		5280	9.4%	0.0790	0.0790	1.7%	0.0084	0.20
14-2-1		24	480	n		480	0.9%	0.0072	0.0072	0.2%	0.0008	0.20
14-2-2	14-2A	104	2080	y	0.2822				0.2822	6.0%	0.0300	1.84
14-2-3	14-2B	100	2000	y	0.0003				0.0003	0.0%	0.0000	0.00
14-2-4		412	8240	n		8240	14.7%	0.1234	0.1234	2.6%	0.0131	0.20
14-3		640	12800	n		12800	22.8%	0.1916	0.1916	4.1%	0.0203	0.20
14-4		640	12800	n		12800	22.8%	0.1916	0.1916	4.1%	0.0203	0.20
14-5		640	12800	n		12800	22.8%	0.1916	0.1916	4.1%	0.0203	0.20
Total			64000		3.87	56160	100.0%	0.84	4.71	100.0%	0.5000	
				Total	4.71							
				Difference	0.84							

Slit Trenches #2

ID	Alias	Length	Area	232-F?	232-F Activity	Area	Area Fraction	Other Activity	Total Activity	Activity Fraction	For 0.5 Ci Total	Relative Density
13-1		640	12800	n		12800	20.0%			20.0%	0.1000	1.00
13-2		640	12800	n		12800	20.0%			20.0%	0.1000	1.00
13-3		640	12800	n		12800	20.0%			20.0%	0.1000	1.00
13-4		640	12800	n		12800	20.0%			20.0%	0.1000	1.00
13-5		640	12800	n		12800	20.0%			20.0%	0.1000	1.00
Total			64000			64000	100.0%			100.0%	0.5000	

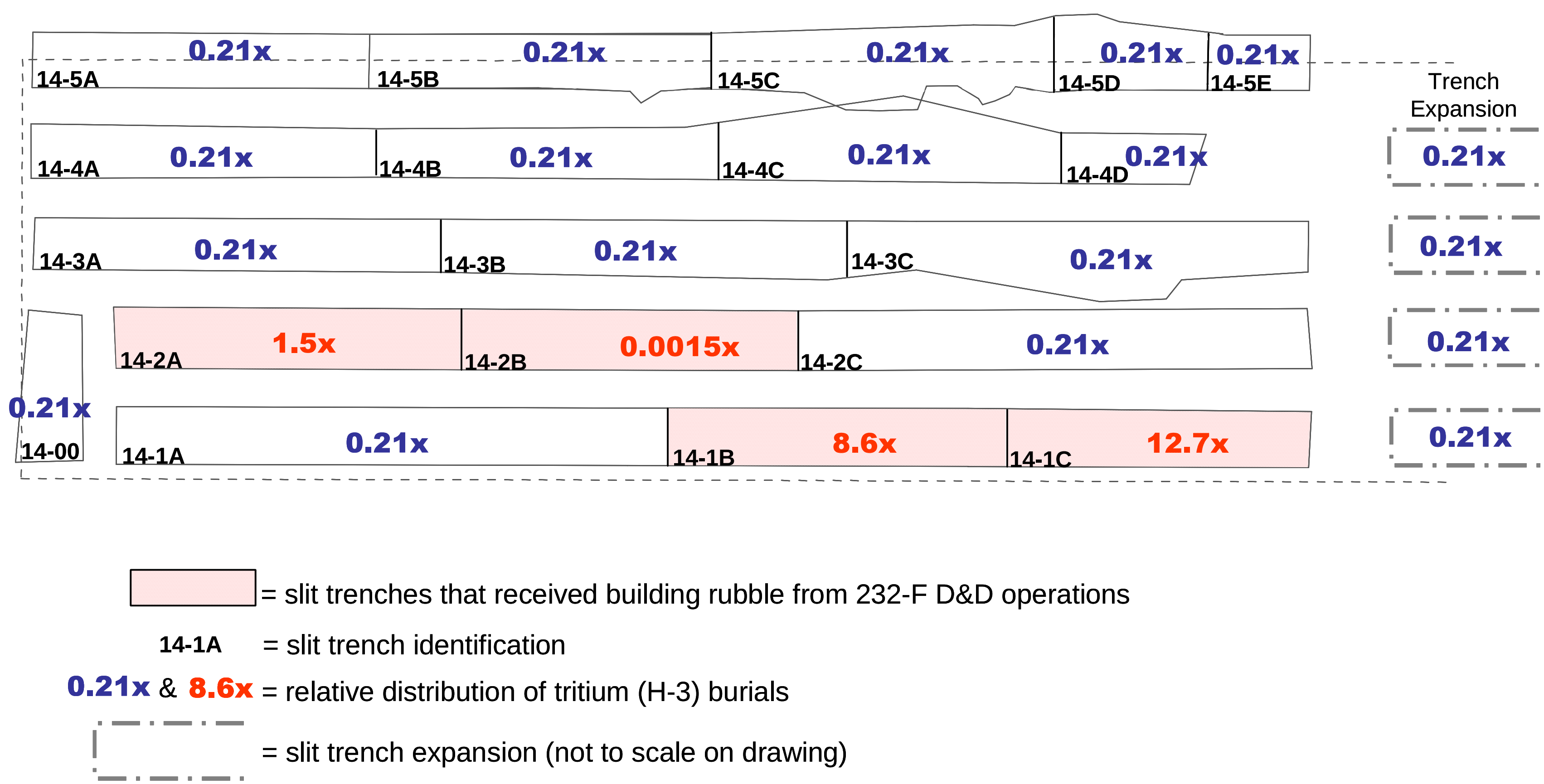


Figure 4. Approximate relative distribution of tritium burials in Slit Trenches #1.

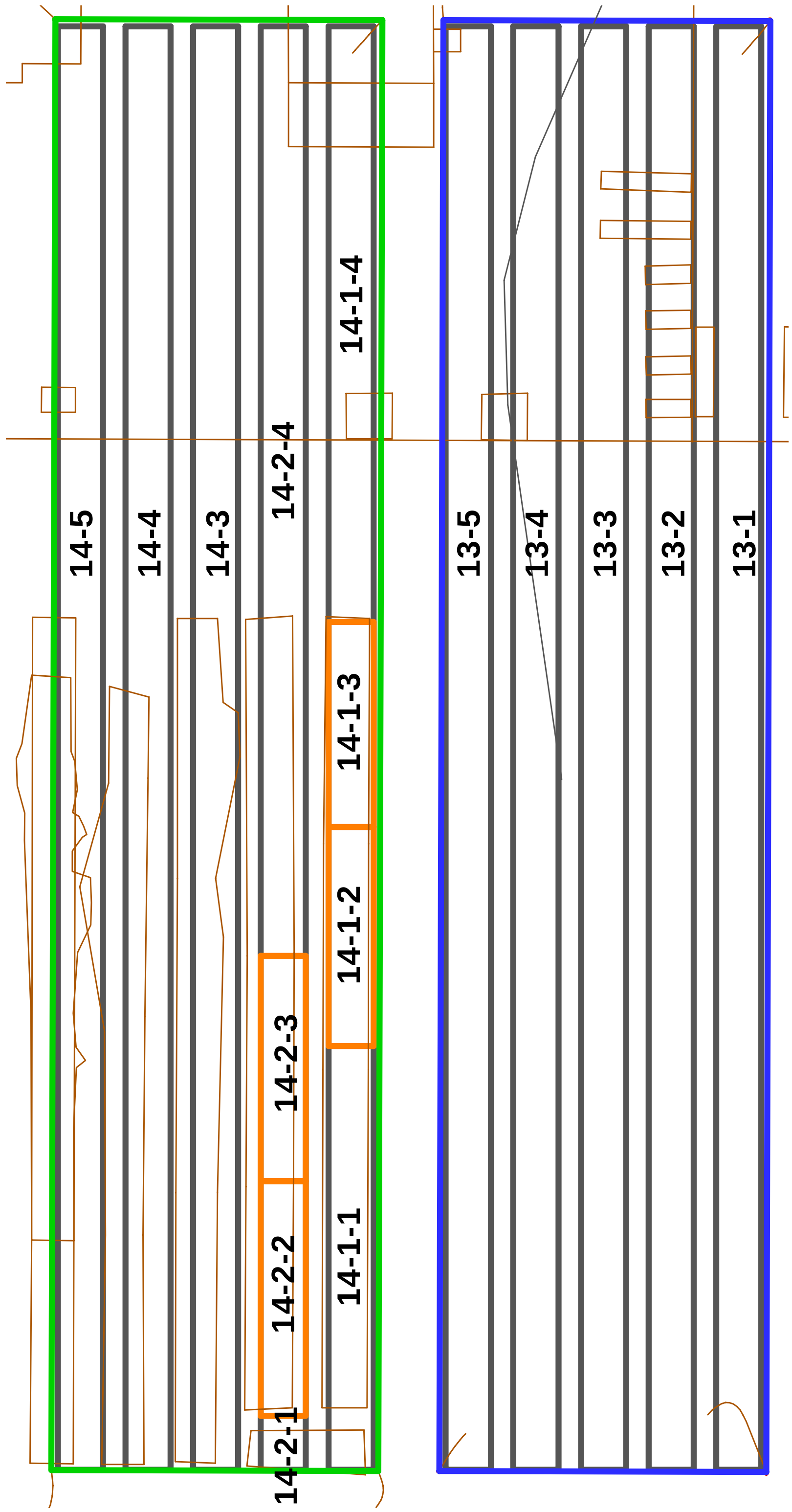


Figure 5. Slit Trenches #1 and #2 as represented in the PORFLOW aquifer model.

Leaching of Tritium to Soil Moisture

In the PA, tritium is assumed to leach immediately from solid waste forms into soil moisture within the trench. That is, the entire inventory is assumed to be a solute at the start of a PORFLOW vadose zone transport simulation. Tritium migrates out of the waste zone by advection within a few years. For some waste forms (e.g tritium on shoe covers), this assumption may be a reasonable representation of reality. For other solid wastes, the assumption is clearly conservative.

Building 232-F rubble is comprised mainly of broken-up concrete with embedded tritium. For this waste form, tritium is expected to leach to backfilled trench soil slowly over time by diffusion and/or advective transport through low-permeability concrete. Hochel and Clark (2003) have estimated tritium release from the bottom of a typical slit trench. The conceptual model is that of decay-corrected plug-flow through a concrete monolith of trench cross-sectional dimensions, and stated to produce an "upper limit" or conservative estimate. The resulting fractional release rate (Ci/yr release per 1 Ci inventory) is shown in Figure 6. See Hochel and Clark (2003) for additional information.

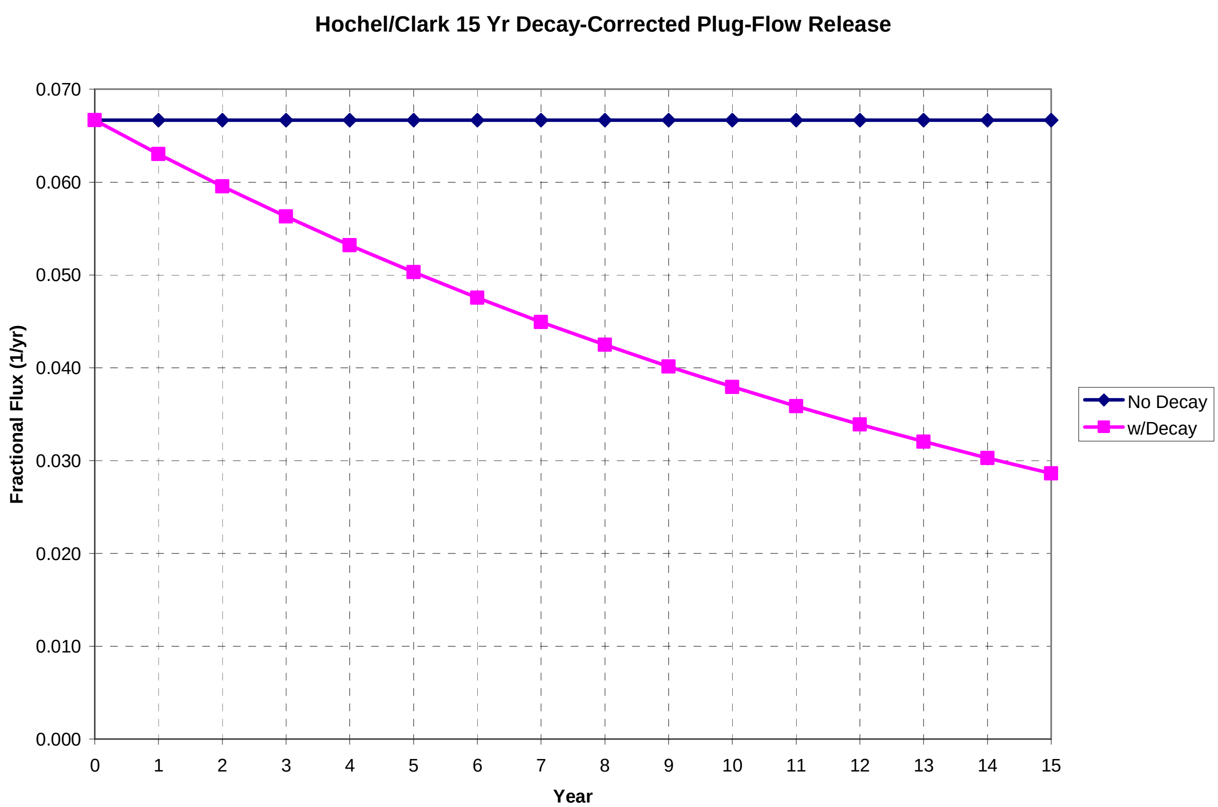


Figure 6. Fractional release of tritium from the bottom of a slit trench based on Hochel and Clark (2003).

PORFLOW Simulations

If the groundwater pathway is limiting, peak aquifer concentration at a 100 meter well defines the Waste Acceptance Criteria (McDowell-Boyer et al. 2000). Peak aquifer concentrations are calculated in two phases. First transport through the vadose zone to the water table is simulated using a two-dimensional PORFLOW model representing a generic trench cross-section. The fractional flux from the vadose model, combined with a spatial distribution of waste in trenches, defines flux to the water table in the aquifer model. Specifically, the flux computed to be leaving the bottom of the vadose model at the water table is defined to be a mass flux source term in aquifer model nodes just beneath the water table underlying trenches. Groundwater recharge is specified at the ground surface in the aquifer model. Transport from the water table surface to a 100 meter well is simulated using a three-dimensional PORFLOW model. Collard (2002) describes how the vadose zone and aquifer models adopted for this study were developed. See the PORFLOW User's Manual for detailed information on the PORFLOW code (Analytical & Computational Research Inc. 2000) and the PA (McDowell-Boyer et al. 2000) for additional information on modeling methods used.

Vadose zone water flow and H-3 transport were simulated for two mechanisms of tritium release from a slit trench. For the "Rapid (PA)" release mechanism, tritium is placed in the waste zone (trench) as a solute following the PA methodology. The entire inventory of tritium begins to migrate through the waste zone immediately. For the "Gradual (Hochel/Clark)" release, the flux shown in Figure 6 is placed at the bottom of the trench as an internal source. Fractional fluxes computed at the bottom of the trench and at the underlying water table are shown in Figure 7 for both release mechanisms. The Hochel/Clark release is observed to be more gradual, with a lower peak flux and longer duration.

For aquifer transport modeling, either fractional flux transient can be combined globally with either a "Uniform (PA)" or "As-Filled" inventory distribution. In addition, the Rapid (PA) and Gradual (Hochel/Clark) fractional fluxes can be used within the same simulation, by applying one to a portion of trenches and the other to the remaining area. In the "Uniform (PA)" scenario, waste is assumed to be uniformly distributed between and within Slit Trenches #1 and #2 following the PA methodology. In the "As-Filled" scenario, tritium is assumed to be uniformly distributed between Slit Trenches #1 and #2, and within Slit Trenches #2. However, a non-uniform distribution resembling as-filled conditions is applied to Slit Trenches #1. Table 3 defines the non-uniform as-filled distribution. The label "As-filled" is somewhat of a misnomer in that the distribution of tritium between Slit Trenches #1 and #2 (uniform or 0.5 Ci each) is hypothetical. "As-filled" refers only to the distribution within the first set of 5 trenches.

Five aquifer transport scenarios were considered as summarized in Table 4. The first 4 simulations represent a single-effect parametric study of 2 distributions and 2 release models. In the fifth simulation, a combination of release models is applied. The Gradual (Hochel/Clark) fraction flux is applied only to the 232-F cementitious waste for which it was developed, and the remaining inventory in Slit Trenches #1 and all of Slit Trenches #2 is released using the default Rapid (PA) model.

Peak aquifer concentrations for a 200 ft × 200 ft window representing a 100 meter well at the resolution of the PA aquifer model (cf. Collard 2002) are given in Table 5 for the 5 scenarios considered in the present study. Also shown are the key results from related studies.

Table 4. Aquifer transport scenarios considered.

Scenario	*Spatial Distribution for Slit Trenches #1*	*Release Model for 232-F Burials*	*Release Model for Other Burials*
Simulation 1	Uniform (PA)	Rapid (PA)	Rapid (PA)
Simulation 2	Uniform (PA)	Gradual (Hochel/Clark)	Gradual (Hochel/Clark)
Simulation 3	As-Filled	Rapid (PA)	Rapid (PA)
Simulation 4	As-Filled	Gradual (Hochel/Clark)	Gradual (Hochel/Clark)
Simulation 5	As-Filled	Gradual (Hochel/Clark)	Rapid (PA)

Table 5. Peak concentration results of aquifer transport simulation.

Current study

Simulation	H-3 pCi/L	Time (yrs)	Ratio to PA	Spatial distribution	Release of 232-F	Release of Other
1	3199	11.8	2.01	Uniform (PA)	Rapid (PA)	Rapid (PA)
2	1103	15.0	0.69	Uniform (PA)	Gradual (Hochel/Clark)	Gradual (Hochel/Clark)
3	3380	12.3	2.13	As-Filled	Rapid (PA)	Rapid (PA)
4	1085	15.0	0.68	As-Filled	Gradual (Hochel/Clark)	Gradual (Hochel/Clark)
5	2189	12.5	1.38	As-Filled	Gradual (Hochel/Clark)	Rapid (PA)

Related studies

Analysis	H-3 pCi/L	Time (yrs)	Ratio to PA	Reference
PA	1590	9	-	WSRC-RP-94-218, Rev. 1, Table 5.1-10
Source Node Study†	3196	9	2.01	WSRC-TR-2003-00123, Rev. 1

†average of Case06 and Case07 (5 cell footprints and 100% saturated cells)

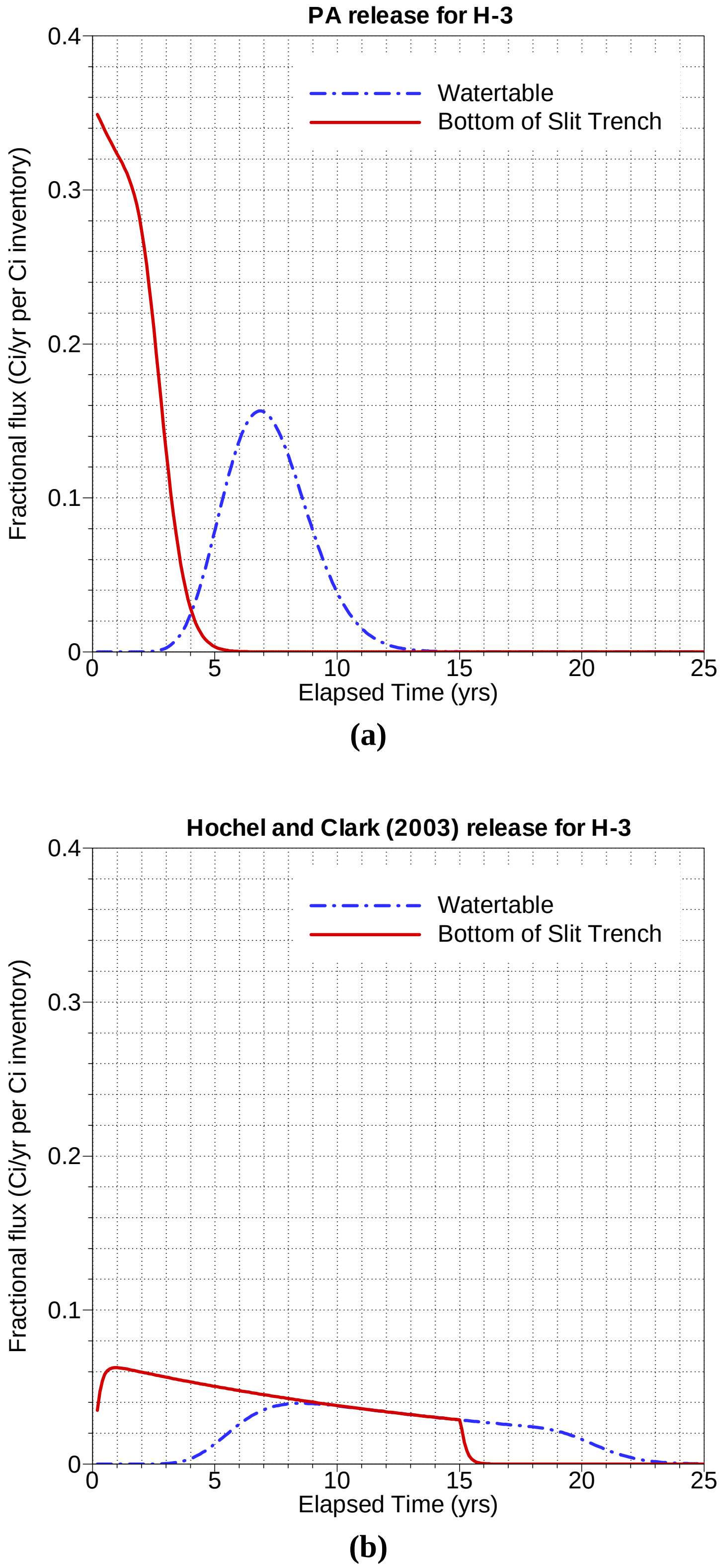


Figure 7. Fractional fluxes of tritium from the bottom of a slit trench and at the water table for: (a) Rapid (PA) release and (b) Hochel and Clark (2003) release.

Discussion of Results

Simulation 1 resembles Case06 and Case07 for H-3 considered by Flach and Collard (2003) using the coarser-mesh aquifer transport model grid used in the PA. The latter cases involved a uniform distribution of waste over model footprints of the same area as the outline of Slit Trenches #1 and #2, and the "Rapid (PA)" release mode. Peak concentrations from the two studies are nearly the same as expected, but about twice as high as the PA value. Thus the present results are qualitatively the same as those of Collard (2002) for I-129 with respect to the PA. Collard (2002) and Flach and Collard (2003) discuss reasons for the difference with the PA.

Comparison of Simulations 1 and 3, and Simulations 2 and 4, indicates that the non-uniform, as-filled, distribution of tritium in Slit Trenches #1 should not significantly impact peak aquifer concentration at a 100 meter well. However, the release model chosen has a large impact, on the order of 3×, as can be seen by comparing Simulations 1 and 2 and Simulations 3 and 4. This effect is commensurate with the difference in fractional flux curves shown in Figure 7.

Simulation 5 assumes 232-F inventory is released relatively slowly per Hochel and Clark (2003), but all other tritium burials produce a rapid release to soil moisture and the water table. Compared to Simulation 1, which is conceptually equivalent to the PA methodology, the peak concentration is significantly lower (2189 versus 3199 pCi/L). The Hochel and Clark (2003) model of tritium release is believed to be conservative (Hochel and Clark 2003, p. 4).

Conclusions and Recommendations

In Slit Trenches #1, tritium comprised 85% of the sum-of-fractions through 4/16/03, and 82% of the H-3 inventory is associated with 232-F D&D operations. Tritium activity from 232-F is concentrated primarily in trench compartments 14-1B and 14-1C with a combined length of approximately 200 ft. In this area, the tritium density is roughly 10 times higher than the average. Although non-uniform, the as-filled distribution of tritium inventory in Slit Trenches #1 is not expected to result in peak concentrations that are significantly higher than a uniform distribution, as assumed in the PA. This conclusion is specific to the particular distribution of tritium in Slit Trenches #1.

Solid waste from 232-F is substantially in the form of concrete rubble. As discussed by Hochel and Clark (2003), tritium embedded within such concrete is expected to leach to trench soil moisture much more slowly than assumed in PA modeling. This study indicates the peak fractional flux to the water table would be approximately 4 times lower for tritium in cementitious wastes compared to instantaneous leaching. Corresponding peak H-3 groundwater concentrations are about 3 times lower for cementitious (e.g. 232-F) wastes. Consideration of waste form could offer an important opportunity to reduce conservatism in PA-based Waste Acceptance Criteria for tritium or other radionuclides.

References

Analytical & Computational Research, Inc. 2000. *PORFLOW User's Manual, Version 4.00*, April.

Collard, L.B. 2002. *Effects of Point Sources in Slit Trenches at the E-Area Low-Level Waste Facility on Groundwater Concentrations*, WSRC-TR-2002-00117, Rev. 0, Westinghouse Savannah River Company, Aiken, South Carolina, 29808, February.

Cook, J. R. 2002. *Special Analysis: Correction and Update of E-Area Disposal Limits*, WSRC-TR-2002-00047, Revision 2, Westinghouse Savannah River Company, Aiken, South Carolina, 29808, May.

Flach, G. P. and L. B. Collard. 2003. *Evaluation of Aquifer Source Node Location Alternatives for E-Area Slit Trench Performance Assessment*, WSRC-TR-2003-00123, Rev. 1, Westinghouse Savannah River Company, Aiken, South Carolina, 29808, May.

Hochel, R. C. and E. A. Clark. 2003. *Estimated Release of Tritium from 232-F Concrete Rubble*, WSRC-TR-2003-00264, Westinghouse Savannah River Company, Aiken, South Carolina, 29808, June.

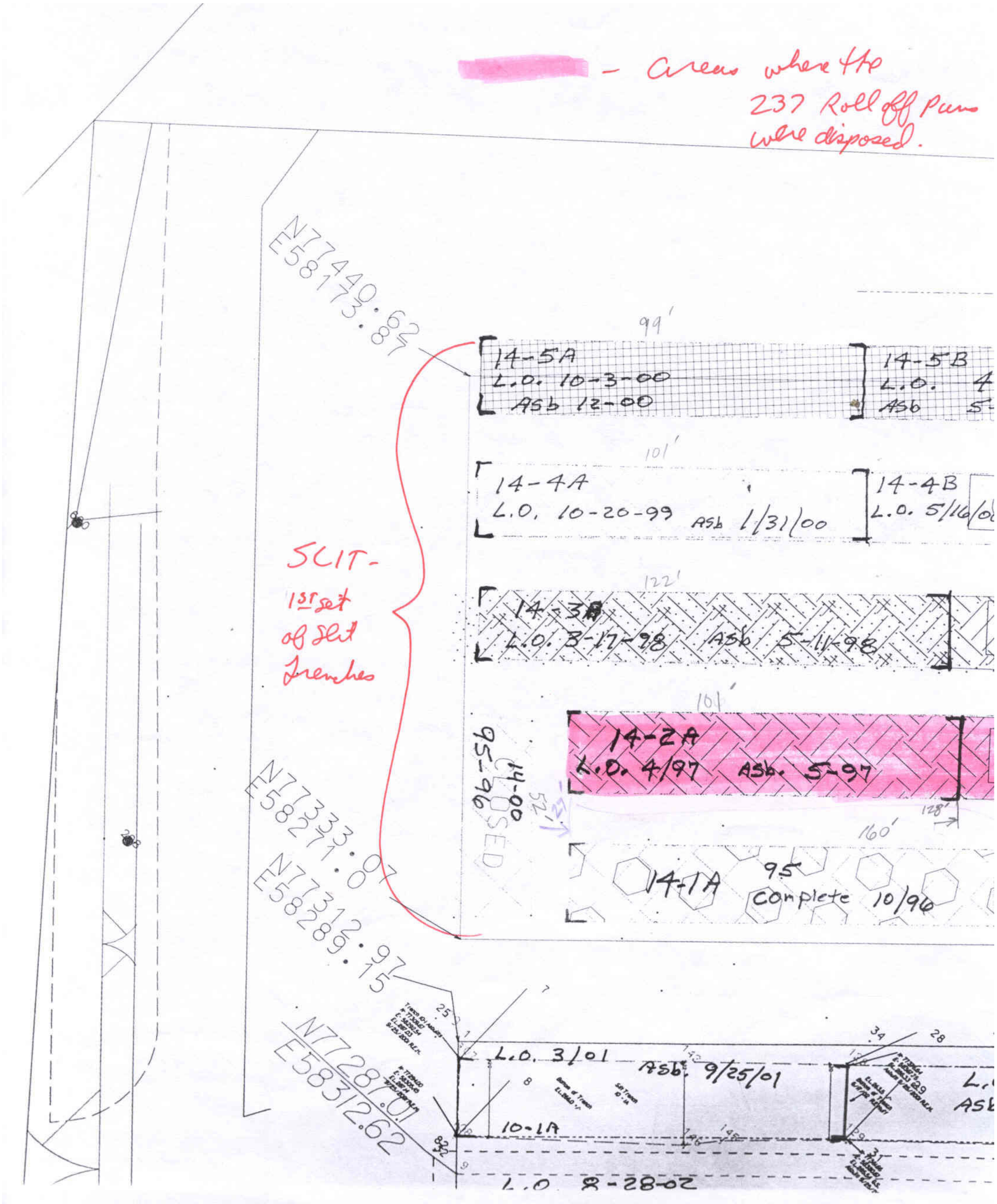
McDowell-Boyer, L., A.D. Yu, J.R. Cook, D.C. Kocher, E.L. Wilhite, H. Holmes-Burns, and K.E. Young. 2000. *Radiological Performance Assessment for the E-Area Low Level Waste Facility*, WSRC-RP-94-218, Revision 1, Westinghouse Savannah River Company, Aiken, South Carolina, 29808, January.

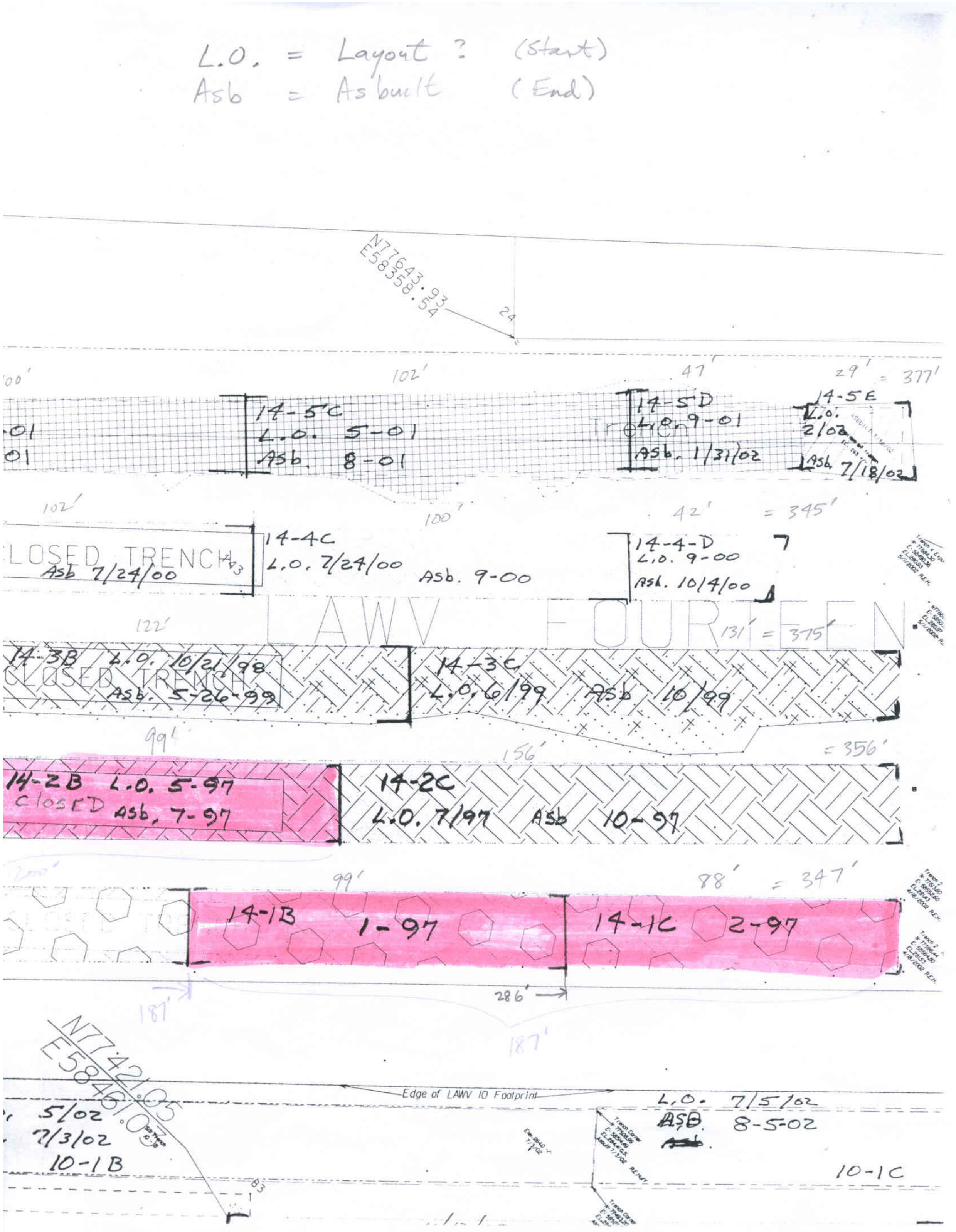
Sink,D. 2003. *E Area Vault Facilities Performance Assessment and Volumetric Status as of 4/16/03*, OBU-SWE-2003-00058.

WSRC. 2002. *WSRC 1S Savannah River Site Waste Acceptance Criteria Manual, Procedure WAC 3.17 Low Level Radioactive Waste Acceptance Criteria*, Rev. 7, September 16.

Appendix

Facility operations information on 232-F D&D building rubble burials provided by Shawn Reed:

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Asb = As built (End)
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47'
29' = 377'
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Asb. 1/31/02
14-5E
L.O. 2/02
Asb 7/18/02
102'
100'
42'
= 345'
CLOSED TRENCH
Asb 7/24/00
14-4C
L.O. 7/24/00 Asb. 9-00
14-4-D
L.O. 9-00
Asb. 10/4/00
LAWV FOURTEEN
122'
131' = 375'
14-3B L.O. 10/21/98
CLOSED TRENCH
Asb. 5-26-99
14-3C
L.O. 6/99 Asb 10/99
99'
156'
= 356'
14-2B L.O. 5-97
CLOSED Asb. 7-97
14-2C
L.O. 7/97 Asb 10-97
99'
88'
= 347'
14-1B 1-97
14-1C 2-97
286'
187'
187'
N77421.05
E58461.03
Edge of LAWV 10 Footprint
L.O. 7/5/02
ASB 8-5-02
5/02
7/3/02
10-1B
10-1C

Waste Inventory Tracking System information on 232-F D&D building rubble burials provided by Don Sink via e-mail dated 5/29/03:

CNTNR_NUM	Receipt Date	Container Type	Tare Wt (kg)	Vol (m3)	Gross Wt (kg)	Activity (ci)	Waste Wt (kg)
L0025	12/4/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0026	12/5/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0027	12/9/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0028	12/13/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0029	12/16/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0030	12/26/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0031	1/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0032	12/16/1996	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0033	1/13/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0034	1/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0035	1/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0036	1/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0037	1/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0038	1/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0039	1/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0040	1/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0041	1/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0042	1/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0043	1/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0044	1/28/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0045	1/28/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0047	1/28/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0048	1/28/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0049	1/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0050	1/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0051	2/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0052	2/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0053	2/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0054	2/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0055	2/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0056	2/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0057	2/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0059	2/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0060	2/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0062	2/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0063	2/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0064	2/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0065	2/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0066	2/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0067	2/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0068	2/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0069	2/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0071	2/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0072	2/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384

L0073	2/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0074	2/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0075	2/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0076	2/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0077	2/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0078	2/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0079	2/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0080	2/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0081	2/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0082	2/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0083	2/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0084	2/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0085	2/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0086	2/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0087	2/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0088	2/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0089	2/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0090	2/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0091	2/24/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0092	2/24/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0093	2/24/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0094	2/24/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0095	2/24/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0096	2/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0097	2/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0099	2/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0100	2/27/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0101	2/27/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0102	2/27/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0103	2/27/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0104	2/27/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0105	2/27/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0106	3/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0108	3/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0109	3/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0111	3/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0112	3/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0113	3/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0114	3/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0115	3/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0116	3/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0117	3/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0118	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0119	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0120	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0121	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0122	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0124	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0125	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384

L0126	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0127	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0128	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0129	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0130	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0131	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0132	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0133	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0134	3/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0135	3/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0136	3/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0137	3/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0138	3/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0139	3/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0140	3/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0141	3/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0142	3/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0143	3/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0144	3/18/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0145	3/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0146	3/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0147	3/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0148	3/19/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0149	3/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0150	3/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0151	3/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0152	3/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0154	3/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0155	3/25/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0156	3/25/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0157	3/25/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0158	3/25/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0159	3/25/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0160	3/25/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0161	3/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0162	3/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0163	3/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0164	3/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0165	3/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0166	3/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0168	4/1/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0169	4/1/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0170	4/1/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0171	4/1/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0172	4/1/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0173	4/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0174	4/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0175	4/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0177	4/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384

L0178	4/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0179	4/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0180	4/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0181	4/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0182	4/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0183	4/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0184	4/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0185	4/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0186	4/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0187	4/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0188	4/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0189	4/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0191	5/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0192	5/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0193	5/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0194	5/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0195	5/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0196	5/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0197	5/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0199	5/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0200	5/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0205	5/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.04	23384
L0201	5/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0202	5/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0203	5/13/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25520	0.002	23370
L0204	5/13/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0206	5/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.04	23384
L0207	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25987	0.04	23837
L0208	5/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25987	0.04	23837
L0209	5/14/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25987	0.04	23837
L0211	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0212	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0213	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0214	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0215	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25520	0.00001	23370
L0216	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0217	5/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0218	5/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0219	5/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0220	5/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0221	5/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0222	5/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0223	5/22/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0224	5/22/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0225	5/22/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0226	5/22/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0227	5/22/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0228	5/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0229	5/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384

L0230	5/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0231	5/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0232	5/29/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0234	6/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0235	6/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0236	6/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0237	6/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0239	6/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0240	6/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0241	6/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0242	6/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0243	6/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0244	6/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0245	6/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0246	6/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0247	6/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0248	6/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0249	6/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0250	6/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0251	6/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0252	6/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0253	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0254	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0255	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0256	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0259	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0260	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0261	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0098	2/26/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.01	23384
L0107	3/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0110	3/5/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0123	3/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.005	23384
L0153	3/20/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0167	4/1/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0176	4/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0190	4/17/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0198	5/12/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.002	23384
L0210	5/15/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0233	6/2/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0238	6/3/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0257	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384
L0046	1/28/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0058	2/4/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.06	23384
L0061	2/6/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0070	2/11/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.05	23384
L0258	6/10/1997	19 CU YD ROLL OFF PAN	2150.1	6.6838	25534	0.00001	23384