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HNF-EP-0182, Rev. 233

# Waste Tank Summary Report for Month Ending AUGUST 31, 2007

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Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

CH2MHILL
*Hanford Group, Inc.*
Richland, Washington

Contractor for the U.S. Department of Energy
Office of River Protection under Contract DE-AC27-99RL14047

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# WASTE TANK SUMMARY REPORT FOR MONTH ENDING AUGUST 31, 2007

**MJ RODGERS**
CH2M HILL HANFORD GROUP, INC.
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U.S. Department of Energy Contract DE-AC27-99RL14047

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CH2M HILL Hanford Group, Inc.

Date Published
January 2008

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

CH2MHILL
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Richland, Washington

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## CONTENTS

1.0 PURPOSE AND SCOPE ..... 7

2.0 WASTE TANK STATUS ..... 9
Table 2-1 Waste Tank Status ..... 9

2.1 WASTE TANK STATUS HIGHLIGHTS ..... 10
Table 2-2 Single-Shell Tanks in Retrieval Status ..... 10

3.0 DOUBLE-SHELL TANKS MONTHLY SUMMARY TABLES ..... 13
Table 3-1. Inventory and Status by Tanks - Double-Shell Tanks. ..... 13
Table 3-2. Double-Shell Tank Space Allocation, Inventory and Waste Receipts ..... 14

4.0 SINGLE-SHELL TANKS MONTHLY SUMMARY TABLES ..... 15
Table 4-1. Inventory and Status by Tanks - Single-Shell Tanks ..... 15
Table 4-2. Single-Shell Tanks Interim Stabilization Status ..... 20
Table 4-3. Single-Shell Tank Leak Volume Estimates ..... 24

5.0 MISCELLANEOUS UNDERGROUND STORAGE TANKS AND SPECIAL SURVEILLANCE FACILITIES ..... 29
Table 5-1. East and West Area Miscellaneous Underground Storage Tanks and Special Surveillance Facilities ..... 29

APPENDIX A - TANK CONFIGURATION AND FACILITIES CHARTS ..... A-1
Figure A-1. Underground Waste Storage Tank Configurations ..... A-1
Figure A-2. Double-Shell Tank Instrumentation Configuration ..... A-2
Figure A-3. Single-Shell Tank Instrumentation Configuration ..... A-3

## ACRONYMS

| | |
|---|---|
| CH2M HILL | CH2M HILL Hanford Group, Inc. |
| DCRT | Double-Contained Receiver Tank |
| DIL | Drainable Interstitial Liquid |
| DLR | Drainable Liquid Remaining |
| DST | Double-Shell Tank |
| Gal | Gallon |
| GPM | Gallons Per Minute |
| ILL | Interstitial Liquid |
| Kgal | Kilogallons |
| IS | Interim Stabilized |
| MT/ | Manual Tape/ |
| ENRAF | ENRAF Corporation (surface level measurement devices) |
| OSD | Operating Specifications Document |
| PFP | Plutonium Finishing Plant |
| SACS | Surveillance Automated Control System |
| SST | Single-Shell Tank |
| TMACS | Tank Monitor and Control System |
| TPA | Hanford Federal Facility Consent and Compliance Order, "Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy," as amended (Tri-Party Agreement) |
| TWINS | Tank Waste Information Network System |
| UPR | Unplanned Release |

# GLOSSARY

## General

Characterization - Characterization is understanding the Hanford tank waste chemical, physical, and radiological properties to the extent necessary to ensure safe storage and interim operation, and ultimate disposition of the waste.

Drainable Interstitial Liquid (DIL) -Drainable Interstitial Liquid is calculated based on saltcake and sludge volumes and calculated porosity values. Interstitial liquid is the liquid that fills the interstitial spaces of the solids waste. The sum of the interstitial liquid contained in saltcake and sludge minus an adjustment for capillary height is the initial volume of DIL. Interstitial liquid that is not held in place by capillary forces will, therefore, migrate or move with gravity.

Supernatant Liquid - The liquid above the solids or in large liquid pools covered by floating solids in waste storage tanks.

Total Waste - For purposes of this document, solids volume (sludge and saltcake including liquids) plus supernatant liquid.

## Interim Stabilization (Single-Shell Tanks only)

Interim Stabilized (IS) - A tank which contains less than 50 Kgallons of drainable interstitial liquid and less than 5 Kgallons of supernatant. If the tank was jet pumped to achieve interim stabilization, then the jet pump flow or saltwell screen inflow must also have been at or below 0.05 gpm before interim stabilization criteria are met.

Jet Pump - The centrifugal pump and jet assembly used to pump the interstitial liquid from the saltwell screen into the pump pit, nominally a 40-foot elevation rise. Pumping rates vary from 0.05 to about 4 gpm.

Saltwell Screen - The saltwell system is a 10-inch diameter saltwell casing consisting of a stainless steel saltwell screen welded to a Schedule 40 carbon steel pipe. The casing and screen are to be inserted into the 12-inch tank riser located in the pump pit. The stainless steel screen portion of the system extend through the tank waste to near the bottom of the tank.

## Retrieval/Closure-(Single-Shell Tanks only)

Closure (C) - Final closure of the operable units (tank farms) shall be defined as regulatory approval of completion of closure actions and commencement of post-closure actions. For the purposes of this agreement (Hanford Federal Facility Agreement and Consent Order Change Control Form, Change Number M-45-02-03), all units located within the boundary of each tank farm will be closed in accordance with Washington Administrative Code 173-303-610.

Retrieval (R) - The process of removing, to the maximum extent practical, all the waste from a given underground storage tank. The retrieval process is selected specific to each tank and accounts for the waste type stored and the access and support systems available. Per OSD-T-151-00031 a tank is officially in "retrieval status" if one of two conditions is meet: either waste has been physically removed from the tank by retrieval operations, or preparations for retrieval operations are directly responsible for rendering the leak or intrusion monitoring instrument "out of service".

## Tank Integrity

Assumed Leaker - The integrity classification of a waste storage tank for which surveillance data indicate a loss of liquid attributed to a breach of integrity.

Sound - The integrity classification of a waste storage tank for which surveillance data indicate no loss of liquid attributed to a breach of integrity.75

## Surveillance Instrumentation

Annulus - The annulus is the space between the inner and outer shells on DSTs only. Drain channels in the insulating and/or supporting concrete carry any leakage to the annulus space where conductivity probes are installed. The annulus conductivity probes or ENRAFs are the primary means of leak detection for all DSTs. The Leak Detection System may not be replaced by, but may be supplemented by, the operation of an annulus ventilation system Continuous Air Monitor (CAM).

Drywells - Historically, the drywells were monitored with gross logging tools as part of a secondary leak monitoring system. In some cases, neutron-moisture sensors were used to monitor moisture in the soil as a function of well depth, which could be indicative of tank leakage. The routine gross gamma logging data were stored electronically from 1974 through 1994; a program was initiated in 1995 to log each of the available drywells in each tank farm with a spectral gamma logging system. The spectral gamma logging system provides quantitative values for gamma-emitting radionuclides. The baseline spectral gamma logging database is available electronically.

Spectral drywell scans can be run by special request. A select subset of drywells is routinely monitored by the Vadose Zone Characterization Project to assess movement of gamma-emitting radionuclides in the subsurface.

ENRAF 854 ATG Level Detector - The ENRAF gauge, fabricated by ENRAF Incorporated, determines waste level by detecting variations in the weight of a displacer suspended in the tank waste. ENRAFs and future installations will transmit digital level data to TMACS via an ENRAF Computer Interface Unit (CIU). The CIU allows fully remote communication with the gauge, minimizing tank farm entry.

Laterals - Laterals are horizontal drywells positioned 8 to 10 feet under single-shell waste storage tanks, 3 per tank, to detect radionuclides in the soil which could be indicative of tank leakage. These drywells can be monitored by radiation detection probes. Laterals are located only in A and SX farms. There are currently no functioning laterals and no plan to prepare them for use.

Liquid Observation Well (LOW) - In-tank liquid observation wells are used for monitoring the ILL in single-shell tanks. The wells are usually constructed of fiberglass or TEFZEL-reinforced epoxy-polyester resin (TEFZEL is a trademark of E. I. du Pont de Nemours & Company). A few LOWs are constructed of steel. Gamma and neutron probes are used to monitor changes in the ILL, and can indicate intrusions or leakage by increases or decreases in the ILL. The OSD-T-151-00031 identifies which LOWs are designated as the primary monitoring device in the SSTs. All of the SST LOWs are monitored quarterly. Two LOWs installed in DSTs SY-102 and AW-103 are used for special, rather than routine, surveillance purposes only.

Surface Levels - The surface level measurements in all waste storage tanks are monitored by manual probes or ENRAFs, and recorded and transmitted via the Surveillance Analysis Computer System.

## 1.0 PURPOSE AND SCOPE

This report is the official inventory for radioactive waste stored in underground tanks in the 200 Areas at the Hanford Site. Data that depict the status of stored radioactive waste and tank vessel integrity are contained within the report. This report provides data on each of the existing 177 large underground waste storage tanks and 61 smaller miscellaneous underground storage tanks and special surveillance facilities, and supplemental information regarding tank surveillance anomalies and ongoing investigations. This report is intended to meet the requirement of U.S. Department of Energy Order 435.1 (DOE-HQ, August 28, 2001, Radioactive Waste Management, U.S. Department of Energy-Washington, D.C.) requiring the reporting of waste inventories and space utilization for the Hanford Site Tank Farm tanks.

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## 2.0 WASTE TANK STATUS

Table 2-1. Waste Tank Status

| | | |
|---|---|---|
| Double-Shell Tanks (DST) | 28 double-shell | 10/86 - date last DST tank was completed |
| Single-Shell Tanks (SST) | 149 single-shell | 1966 - date last SST tank was completed |
| Assumed Leaker Tanks | 67 single-shell | 07/93 - date last Assumed Leaker was identified |
| Sound Tanks | 28 double-shell<br>82 single-shell | 1986 - date DSTs determined sound<br>07/93 - date last SST determined sound |
| Interim Stabilized Tanks (IS) | 149 single-shell | 03/04 - date last IS occurred (1) |
| Retrieval | 10 single-shell | 12/06 - date last Retrieval completed (2) |
| Misc. Underground Storage Tanks (MUST) and Special Surveillance Facilities (Active) | 10 Tanks East Area<br>7 Tanks West Area | 03/01 - last date a tank was added or removed from MUST list |
| Misc. Underground Storage Tanks (IMUST) and Special Surveillance Facilities (Inactive) | 18 Tanks East Area<br>25 Tanks West Area | 11/01 - last date a tank was added or removed from IMUST list (3) |

Table 2-0 Footnotes:

(1) Tanks are declared Interim Stabilized when pumping stops; the tank may be placed in evaluation at this time. Tank U-108 was placed in evaluation on March 18, 2004, due to major equipment failure; documentation was completed August 16 and the declaration letter sent to DOE-RL on September 8, 2004. A letter was submitted to DOE on September 29, 2005, that stated S-102 met interim stabilization criteria. Retrieval operations began in this tank on December 16, 2004 and are ongoing. Interim Stabilization requirements are held in abeyance during retrieval. (3rd Amendment to Consent Decree CT-99-5076-EFS)

Saltwell pumping for the tanks covered by the Consent Decree was completed in March 2004. (Tank C-106 is not included in the Consent Decree and is not Interim Stabilized; Retrieval was completed December 31, 2003). The Consent Decree table and footnotes have been removed from this document; all actions in this decree have been completed.

(2) Under a previous definition for retrieval status, the tank status for C-104, C-201, C-202, C-203, C-204, S-102, S-103, S-105 and S-106 was changed to "Retrieval," effective October 2002, and the tank status for C-103, C-105, C-106, and S-112 was changed to "Retrieval" in October 2003. Hanford Federal Facility Agreement and Consent Order (signed August 2004) modified Milestone M-45-00C (Change Order M-45-04-01) changing the regulatory requirements for retrieval of waste in tanks S-103, S-105, and S-106. Table 2-1 identifies the tanks currently in retrieval status (see Glossary for definition of Retrieval status).

(3) Inactive Miscellaneous Underground Storage Tanks (IMUST) reflect those tanks managed by CH2M HILL Hanford Group, Inc. (CH2M HILL).

## 2.1 WASTE TANK STATUS HIGHLIGHTS

Table 2-2. Single-Shell Tanks in Retrieval Status

| Tank Number | Comments | Nominal Volume of Remaining Waste ($ft^3$) (1) | Reference |
|---|---|---|---|
| 241-C-103 | Declared "Retrieval Completed," August 26, 2006 | 338 | (2) |
| 241-C-106 | Declared "Retrieval Completed," December 31, 2003 | 370.33 | (3) |
| 241-C-108 | Retrieval in progress – retrieval initiated December 20, 2006 | 1029 | |
| 241-C-109 | Retrieval in progress – retrieval initiated June 19, 2007 | 1323 | |
| 241-C-201 | Declared "Retrieval Completed," March 23, 2006 | 19.2 | (4) |
| 241-C-202 | Declared "Retrieval Completed," August 11, 2005 | 19.7 | (5) |
| 241-C-203 | Declared "Retrieval Completed," March 24, 2005 | 18.5 | (6) |
| 241-C-204 | Declared "Retrieval Completed," December 13, 2006 | 18.3 | (7) |
| 241-S-102 | Retrieval in progress | 4545 | |
| 241-S-112 | Declared "Retrieval Completed," March 2, 2007 | 319 | (8) |

Table 2-1 Footnotes:

(1) Nominal volume of waste inventory is the best estimate of residual volume. Retrieval Data Reports also provide 95% upper confidence level volume as the bounding estimate of remaining waste.

(2) RPP-RPT-33060 Rev. 0 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-103*

(3) RPP-20577 Rev. 0 *Stage 2 Retrieval Data Report for Single-Shell Tank 241-C-106*

(4) RPP-29441 Rev. 0 *Post-Retrieval Waste Volume Determination for Single-Shell Tank 241-C-201*

(5) RPP-RPT-29095 Rev. 0 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-202*

(6) RPP-RPT-26475 Rev. 1 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-203*

(7) RPP-RPT-34062 Rev. 0 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-204*

(8) RRP-RPT-35112 Rev. 0 *Retrieval Data Report for Single-Shell Tank 241-S-112*

Hanford Federal Facility Agreement and Consent Order (HFFACO) Milestone M-46-21

The U.S. Department of Energy sent a letter (05-TPD-115) to the Department of Ecology on December 15, 2005 stating that the HFFACO Milestone M-46-21 has been completed. The milestone includes completing implementation of double-shell tank space optimization study recommendations and creating sufficient double-shell tank storage to accommodate retrieval and closure demonstrations at tanks C-104, C-106, S-102, S-103, S-105, S-106, and S-112. TPA Change Package M-45-04-01 substantially changed the tank retrieval sequence to eliminate retrieval of S-103, S-105 and S-106. The DST space saving measures of M-46-21 provide sufficient space to support retrieval of the C farm tanks that are to be retrieved in lieu of S-103, S-105 and S-106.

Tank Leak Volume Estimates

In *Waste Tank Summary Report for Month Ending September 30, 2005*, HNF-EP-0182, Rev. 210, the leak volume estimates were revised per *Tank Farm Vadose Zone Contamination Volume Estimates*, RPP-23405, Rev. 1. The Washington State Department of Ecology has submitted comments on *Tank Farm Vadose Zone Contamination Volume Estimates* and until these comments have been resolved, the previous leak volume estimates have been reinstated

Subsequent to issuance of RPP-23405, the U.S. Department of Energy and the Washington State Department of Ecology agreed on a process to update leak volume estimates and the conclusions presented in RPP-23405 (DOE-ORP 06-TPD-059). Pursuant to that commitment, RPP-32681, Rev. 0, *Process to Assess Tank Farm Leaks in Support of Retrieval and Closure Planning* established the process to develop estimates of tank farm leak loss inventories. The process is used to assess the source of tank farm leaks when necessary to support tank waste retrieval technology selections, and re-assess and update volume estimates and inventories for previously identified tank leaks. If the results suggest a change to the tank's integrity classification, the Tank Leak Assessment Process TFC-ENG-CHEM-D-42 would be invoked. The bases for revisions to leak volume estimates or for changes to tank integrity resulting from this activity are footnoted after table 4-3.

DST Space Gains

OSD-T-151-00007 *Operating Specification for Double-Shell Storage Tanks,* has updated the operating limits in the double-shell tanks. Currently all tank farms except AP-Farm assume Normal Operating Limits. AP-Farm assumes the Maximum Operating Limit of 449 inches, which results in space gains of 726 Kgal.

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## 3.0 DOUBLE-SHELL TANKS MONTHLY SUMMARY TABLES

Table 3-1. Inventory and Status by Tanks - Double-Shell Tanks

All volume data obtained from Tank Waste Information Network System (TWINS)

| | | | | | Waste Volumes | | | |
|---|---|---|---|---|---|---|---|---|
| Tank | Tank Integrity | Tank Level (inches) | Total Waste (Kgal) | Available Space (Kgal) | Supernatant Liquid (Kgal) | Sludge (Kgal) | Saltcake (Kgal) | Solids Volume Update |
| **241-AN TANK FARM STATUS** | | | | | | | | |
| AN-101 | SOUND | 416 | 1144 | 0 | 1113 | 0 | 31 | 12/31/03 |
| AN-102 | SOUND | 386 | 1061 | 83 | 907 | 0 | 154 | 01/01/05 |
| AN-103 | SOUND | 349 | 959 | 185 | 468 | 0 | 491 | 06/30/99 |
| AN-104 | SOUND | 383 | 1052 | 92 | 607 | 0 | 445 | 06/30/99 |
| AN-105 | SOUND | 411 | 1129 | 15 | 591 | 0 | 538 | 01/31/03 |
| AN-106 | SOUND | 276 | 758 | 386 | 531 | 210 | 17 | 01/30/05 |
| AN-107 | SOUND | 399 | 1096 | 48 | 866 | 0 | 230 | 12/31/03 |
| 7 TANKS - TOTAL | | | 7199 | 809 | 5083 | 210 | 1906 | |
| **241-AP TANK FARM STATUS** | | | | | | | | |
| AP-101 | SOUND | 420 | 1156 | 92 | 1156 | 0 | 0 | 05/01/89 |
| AP-102 | SOUND | 396 | 1089 | 159 | 1061 | 28 | 0 | 05/31/02 |
| AP-103 | SOUND | 415 | 1141 | 107 | 1123 | 18 | 0 | 05/31/96 |
| AP-104 | SOUND | 180 | 495 | 753 | 495 | 0 | 0 | 10/13/88 |
| AP-105 | SOUND | 413 | 1136 | 112 | 1047 | 0 | 89 | 06/30/99 |
| AP-106 | SOUND | 411 | 1131 | 117 | 1131 | 0 | 0 | 10/13/88 |
| AP-107 | SOUND | 410 | 1127 | 121 | 1127 | 0 | 0 | 10/13/88 |
| AP-108 | SOUND | 454 | 1247 | 1 | 1146 | 0 | 101 | 10/13/88 |
| 8 TANKS - TOTAL | | | 8522 | 1462 | 8286 | 46 | 190 | |
| **241-AW TANK FARM STATUS** | | | | | | | | |
| AW-101 | SOUND | 412 | 1133 | 11 | 737 | 0 | 396 | 01/31/03 |
| AW-102 | SOUND | 28 | 78 | 1047 | 47 | 31 | 0 | 03/31/04 |
| AW-103 | SOUND | 398 | 1094 | 50 | 762 | 292 | 40 | 07/21/04 |
| AW-104 | SOUND | 388 | 1067 | 77 | 844 | 66 | 157 | 06/30/99 |
| AW-105 | SOUND | 152 | 417 | 727 | 169 | 248 | 0 | 06/30/99 |
| AW-106 | SOUND | 411 | 1129 | 15 | 848 | 0 | 281 | 04/01/04 |
| 6 TANKS - TOTAL | | | 4918 | 1927 | 3407 | 637 | 874 | |
| **241-AY TANK FARM STATUS** | | | | | | | | |
| AY-101 | SOUND | 311 | 855 | 146 | 749 | 106 | 0 | 06/30/99 |
| AY-102 | SOUND | 361 | 993 | 8 | 842 | 151 | 0 | 04/01/04 |
| 2 TANKS - TOTAL | | | 1848 | 154 | 1591 | 257 | 0 | |
| **241-AZ TANK FARM STATUS** | | | | | | | | |
| AZ-101 | SOUND | 305 | 839 | 162 | 787 | 52 | 0 | 06/30/98 |
| AZ-102 | SOUND | 344 | 947 | 54 | 842 | 105 | 0 | 06/30/99 |
| 2 TANKS - TOTAL | | | 1786 | 216 | 1629 | 157 | 0 | |
| **241-SY TANK FARM STATUS** | | | | | | | | |
| SY-101 | SOUND | 403 | 1107 | 37 | 848 | 0 | 259 | 06/30/99 |
| SY-102 | SOUND | 207 | 569 | 575 | 347 | 211 | 11 | 09/30/03 |
| SY-103 | SOUND | 269 | 739 | 405 | 382 | 0 | 357 | 06/30/99 |
| 3 TANKS - TOTAL | | | 2415 | 1017 | 1577 | 211 | 627 | |

Notes:
1 Kgal differences are the result of computer rounding
Supernatant + Sludge (includes liquid) + Saltcake (includes liquid) = Total Waste
Available Space Volumes include restricted space
Tanks AN-103, AN-104, AN-105, AW-101, SY-101 and SY-103 contain retained gas in the saltcake

Table 3-2. Double-Shell Tank Space Allocation, Inventory and Waste Receipts (all volumes in kgallons)

| TOTAL DST CAPACITY | |
|---|---|
| TOTAL= | 32,273 |

| TOTAL DST WASTE INVENTORY | |
|---|---|
| INVENTORY ON 08/31/07 | 26,688 |
| INVENTORY ON 07/31/07 | 27,203 |
| CHANGE = | -515 |

| ALLOCATION OF REMAINING DST SPACE | |
|---|---|
| (*)TOTAL DST CAPACITY = | 32,273 |
| WASTE INVENTORY = | -26,688 |
| (**) DEDICATED OPERATIONAL SPACE = | -2,000 |
| (***) RESTRICTED USAGE SPACE = | -1,760 |
| (****)EMERGENCY SPACE ALLOCATION = | -1,200 |
| REMAINING AVAILABLE SPACE = | 625 |

(*) Assumes Normal Operating Limits for all tank farms except AP-Farm, which assumes the Maximum Operating Limit per OSD-T-151-00007.
(**) Dedicated Operational Space is assumed to equal 2 Mgal for SST retrieval, cross-site transfer receiver, and evaporator feed and slurry.
(***) Restricted space associated with flammable gas Waste Group A and tanks controlled for waste feed delivery per Feed Control List, HNF-SD-WM-OCD-015, Tank Farms Waste Transfer Compatibility Program. These tanks are: AN-102, -103, -104, -105, -107; AW-101, -103, -105; and SY-103.
(****) Emergency Space Allocation adjusted in July 2003 per HNF-3484 Rev. 4, includes space for WTP returns.

| MAY DST WASTE RECEIPTS | | | | | |
|---|---|---|---|---|---|
| FACILITY GENERATIONS | | OTHER GAINS ASSOCIATED WITH | | OTHER LOSSES ASSOCIATED WITH | |
| 222-S | 0 | SLURRY | 0 | SLURRY | 0 |
| TANK FARMS | 18 | CONDENSATE | 6 | CONDENSATE | 3 |
| C-109 | 24 | INSTRUMENTATION | 4 | INSTRUMENTATION | 0 |
| 242-A EVAPORATOR | -29 | MISCELLANEOUS GAINS | 5 | MISCELLANEOUS LOSSES | 7 |
| | | | | | |
| | | | | | |
| TOTAL = | 13 | TOTAL= | 15 | TOTAL= | 10 |

| WASTE RECEIPT AND EVAPORATOR METRIC | | | | | |
|---|---|---|---|---|---|
| DATE | DST WASTE RECEIPTS | MISC. DST CHANGES (+/-) | WVR (1) | NET DST CHANGE | TOTAL DST VOLUME |
| 08/07 | 13 | 5 | -533 | -515 | 26,688 |

(1) WVR is total (before flush) waste volume reduction for 242-A Evaporator; Campaign started 6/18/07

| IMPLEMENTATION OF DST SPACE OPTIONS METRIC (TPA MILESTONE M-46-21) | | | |
|---|---|---|---|
| DATE | INITIATIVES | GAINS TO DATE (1) | GAINS DURING MONTH |
| 08/07 | INCREASE DST FILL HEIGHT | 830 | 0 |
| | NET EVAPORATOR WVR (2) | 3274 | 517 |
| | RESERVE EMERGENCY SPACE COMPLIANT WITH DOE O435.1 | 1100 | 0 |
| | USE RESTRICTED HEADSPACE | 680 | 0 |
| | TOTAL | 5884 | 517 |

(1) DST tank space gains since 10/1/02.
(2) WVR is net (after flush) waste volume reduction for 242-A Evaporator
(3) 0500746/05-TPD-082, 2005, "Contract Number DE-AC27-99RL14047 Approval to Consolidate Waste Treatment And Immobilization Plant (WTP) Hot Commisioning Feeds Stored in Tanks AP-101 and AY-101," (External letter from R. J. Schepens to E. S. Aromi, September 29), Office of River Protection, Department of Energy, Richland, Washington.

# 4.0 SINGLE SHELL TANKS MONTHLY SUMMARY TABLES

Table 4-1. Inventory and Status by Tanks - Single-Shell Tanks
All volume data obtained from Tank Waste Information Network System (TWINS)

| | | | | Waste Volumes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tank Number | Tank Integrity | Tank Status | Total Waste (Kgal) | Super-natant Liquid (Kgal) | Drainable Interstitial Liquid (Kgal) | Pumped this Month (Kgal) | Total Pumped (Kgal) | Drainable Liquid Remaining (Kgal) | Sludge (Kgal) | Salt-cake (Kgal) | Solids Volume Update |
| | | | | | 241-A TANK FARM STATUS | | | | | | |
| A-101 | SOUND | IS/IP(4) | 320 | 0 | 37 | 0 | 543 | 37 | 3 | 317 | 06/30/04 |
| A-102 | SOUND | IS | 40 | 3 | 9 | 0 | 40 | 12 | 0 | 37 | 01/31/03 |
| A-103 | ASMD LKR | IS/IP | 378 | 4 | 86 | 0 | 111 | 90 | 2 | 372 | 07/01/05 |
| A-104 | ASMD LKR | IS/IP | 28 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 01/27/78 |
| A-105 | ASMD LKR | IS/IP | 37 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 10/31/00 |
| A-106 | SOUND | IS/IP | 79 | 0 | 9 | 0 | 0 | 9 | 50 | 29 | 01/01/02 |
| 6 TANKS - TOTAL | | | 882 | 7 | | | | | 120 | 755 | |
| | | | | | 241-AX TANK FARM STATUS | | | | | | |
| AX-101 | SOUND | IS | 358 | 0 | 44 | 0 | 369 | 44 | 3 | 355 | 12/31/03 |
| AX-102 | ASMD LKR | IS/IP | 30 | 0 | 0 | 0 | 13 | 0 | 6 | 24 | 01/01/02 |
| AX-103 | SOUND | IS/IP | 107 | 0 | 22 | 0 | 0 | 22 | 8 | 99 | 09/30/03 |
| AX-104 | ASMD LKR | IS/IP | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 01/01/02 |
| 4 TANKS - TOTAL | | | 502 | 0 | | | | | 24 | 478 | |
| | | | | | 241-B TANK FARM STATUS | | | | | | |
| B-101 | ASMD LKR | IS/IP | 109 | 0 | 20 | 0 | 0 | 20 | 28 | 81 | 01/01/02 |
| B-102 | SOUND | IS/IP | 32 | 4 | 7 | 0 | 0 | 11 | 0 | 28 | 06/30/99 |
| B-103 | ASMD LKR | IS/IP | 56 | 0 | 10 | 0 | 0 | 10 | 1 | 55 | 01/01/02 |
| B-104 | SOUND | IS/IP | 374 | 0 | 45 | 0 | 0 | 45 | 309 | 65 | 01/01/02 |
| B-105 | ASMD LKR | IS/IP | 290 | 0 | 20 | 0 | 0 | 20 | 28 | 262 | 01/01/02 |
| B-106 | SOUND | IS/IP | 123 | 1 | 8 | 0 | 0 | 9 | 122 | 0 | 12/31/03 |
| B-107 | ASMD LKR | IS/IP | 161 | 0 | 23 | 0 | 0 | 23 | 86 | 75 | 01/01/02 |
| B-108 | SOUND | IS/IP | 92 | 0 | 19 | 0 | 0 | 19 | 27 | 65 | 06/30/04 |
| B-109 | SOUND | IS/IP | 126 | 0 | 23 | 0 | 0 | 23 | 50 | 76 | 10/01/05 |
| B-110 | ASMD LKR | IS/IP | 245 | 1 | 27 | 0 | 0 | 28 | 244 | 0 | 01/01/02 |
| B-111 | ASMD LKR | IS/IP | 242 | 1 | 23 | 0 | 0 | 24 | 241 | 0 | 01/01/02 |
| B-112 | ASMD LKR | IS/IP | 35 | 3 | 2 | 0 | 0 | 5 | 15 | 17 | 01/01/02 |
| B-201 | ASMD LKR | IS/IP | 29 | 0 | 5 | 0 | 0 | 5 | 29 | 0 | 07/01/04 |
| B-202 | SOUND | IS/IP | 28 | 0 | 4 | 0 | 0 | 4 | 28 | 0 | 07/01/04 |
| B-203 | ASMD LKR | IS/IP | 50 | 1 | 5 | 0 | 0 | 6 | 49 | 0 | 07/01/04 |
| B-204 | ASMD LKR | IS/IP | 50 | 1 | 5 | 0 | 0 | 6 | 49 | 0 | 07/01/05 |
| 16 TANKS - TOTAL | | | 2042 | 12 | | | | | 1306 | 724 | |
| | | | | | 241-BX TANK FARM STATUS | | | | | | |
| BX-101 | ASMD LKR | IS/IP/CCS | 48 | 0 | 4 | 0 | 0 | 4 | 48 | 0 | 01/01/02 |
| BX-102 | ASMD LKR | IS/IP/CCS | 79 | 0 | 0 | 0 | 0 | 0 | 79 | 0 | 06/30/04 |
| BX-103 | SOUND | IS/IP/CCS | 75 | 13 | 4 | 0 | 0 | 17 | 62 | 0 | 01/01/83 |
| BX-104 | SOUND | IS/IP/CCS | 100 | 3 | 4 | 0 | 17 | 7 | 97 | 0 | 01/01/02 |
| BX-105 | SOUND | IS/IP/CCS | 72 | 5 | 4 | 0 | 15 | 9 | 42 | 25 | 01/01/05 |
| BX-106 | SOUND | IS/IP/CCS | 38 | 0 | 4 | 0 | 14 | 4 | 10 | 28 | 01/01/05 |
| BX-107 | SOUND | IS/IP/CCS | 347 | 0 | 37 | 0 | 23 | 37 | 347 | 0 | 09/18/90 |
| BX-108 | ASMD LKR | IS/IP/CCS | 31 | 0 | 4 | 0 | 0 | 4 | 31 | 0 | 01/31/01 |
| BX-109 | SOUND | IS/IP/CCS | 193 | 0 | 25 | 0 | 8 | 25 | 193 | 0 | 09/17/90 |
| BX-110 | ASMD LKR | IS/IP/CCS | 214 | 1 | 35 | 0 | 2 | 36 | 65 | 148 | 08/25/05 |
| BX-111 | ASMD LKR | IS/IP/CCS | 188 | 0 | 6 | 0 | 117 | 6 | 32 | 156 | 08/25/05 |
| BX-112 | SOUND | IS/IP/CCS | 164 | 1 | 9 | 0 | 4 | 10 | 163 | 0 | 01/01/02 |
| 12 TANKS - TOTAL | | | 1549 | 23 | | | | | 1169 | 357 | |

## Table 4-1. Inventory and Status by Tanks - Single-Shell Tanks

All volume data obtained from Tank Waste Information Network System (TWINS)

| | | | | Waste Volumes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tank Number | Tank Integrity | Tank Status | Total Waste (Kgal) | Super-natant Liquid (Kgal) | Drainable Interstitial Liquid (Kgal) | Pumped this Month (Kgal) | Total Pumped (Kgal) | Drainable Liquid Remaining (Kgal) | Sludge (Kgal) | Salt-cake (Kgal) | Solids Volume Update |
| | | | | **241-BY TANK FARM STATUS** | | | | | | | |
| BY-101 | SOUND | IS/IP | 370 | 0 | 24 | 0 | 36 | 24 | 37 | 333 | 01/01/02 |
| BY-102 | SOUND | IS | 278 | 0 | 40 | 0 | 159 | 40 | 0 | 278 | 08/25/05 |
| BY-103 | ASMD LKR | IS | 414 | 0 | 55 | 0 | 96 | 55 | 9 | 405 | 07/01/05 |
| BY-104 | SOUND | IS/IP | 405 | 0 | 44 | 0 | 330 | 44 | 46 | 359 | 01/01/02 |
| BY-105 | ASMD LKR | IS | 481 | 0 | 47 | 0 | 45 | 47 | 48 | 433 | 03/31/03 |
| BY-106 | ASMD LKR | IS | 430 | 0 | 37 | 0 | 99 | 37 | 32 | 398 | 12/31/03 |
| BY-107 | ASMD LKR | IS/IP | 271 | 0 | 42 | 0 | 56 | 42 | 15 | 256 | 07/01/05 |
| BY-108 | ASMD LKR | IS/IP | 222 | 0 | 33 | 0 | 28 | 33 | 40 | 182 | 01/01/02 |
| BY-109 | SOUND | IS | 287 | 0 | 37 | 0 | 157 | 37 | 24 | 263 | 06/30/04 |
| BY-110 | SOUND | IS/IP | 366 | 0 | 20 | 0 | 213 | 20 | 43 | 323 | 01/01/02 |
| BY-111 | SOUND | IS/IP | 402 | 0 | 14 | 0 | 313 | 14 | 0 | 402 | 08/25/05 |
| BY-112 | SOUND | IS/IP | 286 | 0 | 24 | 0 | 116 | 24 | 2 | 284 | 03/31/02 |
| 12 TANKS - TOTAL | | | 4212 | 0 | | | | | 296 | 3916 | |
| | | | | **241-C TANK FARM STATUS** | | | | | | | |
| C-101 | ASMD LKR | IS/IP | 88 | 0 | 4 | 0 | 0 | 4 | 88 | 0 | 11/29/83 |
| C-102 | SOUND | IS/IP | 316 | 0 | 62 | 0 | 47 | 62 | 316 | 0 | 09/30/95 |
| C-103 | SOUND | IS/R | 3 | Retrieval Completed 08/26/06 See Footnote (9) | | | | 0 | 3 | 0 | 08/26/06 |
| C-104 | SOUND | IS/IP | 259 | 0 | 29 | 0 | 0 | 29 | 259 | 0 | 01/01/02 |
| C-105 | SOUND | IS | 132 | 0 | 10 | 0 | 0 | 10 | 132 | 0 | 02/29/00 |
| C-106 | SOUND | IS/R | 3 | Retrieval Completed 12/31/03 See Footnote (1) | | | | 0 | 3 | 0 | 02/26/04 |
| C-107 | SOUND | IS/IP | 247 | 0 | 30 | 0 | 41 | 30 | 247 | 0 | 06/30/04 |
| C-108 | SOUND | IS/IP/R | 8 | Retrieval in progress See Footnote (11) | | | | 4 | 7 | 0 | 04/27/07 |
| C-109 | SOUND | IS/IP/R | 18 | Retrieval in progress See Footnote (12) | | | | 4 | 17 | 0 | 08/13/07 |
| C-110 | ASMD LKR | IS/IP | 178 | 1 | 37 | 0 | 16 | 38 | 177 | 0 | 06/14/95 |
| C-111 | ASMD LKR | IS/IP | 57 | 0 | 4 | 0 | 0 | 4 | 57 | 0 | 06/30/04 |
| C-112 | SOUND | IS/IP | 104 | 0 | 6 | 0 | 0 | 6 | 104 | 0 | 09/18/90 |
| C-201 | ASMD LKR | IS/IP/R | 0 | Retrieval Completed 03/23/06 See Footnote (8) | | | | 0 | 0 | 0 | 04/27/06 |
| C-202 | ASMD LKR | IS/IP/R | 0 | Retrieval Completed 08/11/05 See Footnote (2) | | | | 0 | 0 | 0 | 08/11/05 |
| C-203 | ASMD LKR | IS/IP/R | 0 | Retrieval Completed 03/24/05 See Footnote (5) | | | | 0 | 0 | 0 | 3/24/05 |
| C-204 | ASMD LKR | IS/IP/R | 0 | Retrieval Completed 12/13/06 See Footnote (10) | | | | 0 | 0 | 0 | 12/13/06 |
| 16 TANKS - TOTAL | | | 1413 | 1 | | | | | 1409 | 0 | |
| | | | | **241-S TANK FARM STATUS** | | | | | | | |
| S-101 | SOUND | IS | 352 | 0 | 45 | 0 | 67 | 45 | 235 | 117 | 04/30/04 |
| S-102 | SOUND | IS/R | 34 | Retrieval in progress- See Footnote (6) | | | | | 10 | 6 | 04/27/07 |
| S-103 | SOUND | IS (3) | 237 | 1 | 45 | 0 | 24 | 46 | 9 | 227 | 06/30/04 |
| S-104 | ASMD LKR | IS/IP (4) | 288 | 0 | 49 | 0 | 0 | 49 | 132 | 156 | 12/20/84 |
| S-105 | SOUND | IS/IP (3) | 406 | 0 | 42 | 0 | 114 | 42 | 2 | 404 | 01/01/02 |
| S-106 | SOUND | IS (3) | 455 | 0 | 26 | 0 | 204 | 26 | 0 | 455 | 02/28/01 |
| S-107 | SOUND | IS | 358 | 0 | 42 | 0 | 83 | 42 | 320 | 38 | 02/26/04 |
| S-108 | SOUND | IS | 550 | 0 | 4 | 0 | 200 | 4 | 5 | 545 | 01/01/02 |
| S-109 | SOUND | IS | 533 | 0 | 16 | 0 | 34 | 16 | 13 | 520 | 07/01/04 |
| S-110 | SOUND | IS | 389 | 0 | 30 | 0 | 203 | 30 | 96 | 293 | 07/01/04 |
| S-111 | SOUND | IS (4) | 401 | 0 | 42 | 0 | 100 | 42 | 76 | 325 | 07/01/04 |
| S-112 | SOUND | IS/IP/R | 3 | Retrieval Completed See Footnote (7) | | | | 0 | 1 | 2 | 03/02/07 |
| 12 TANKS - TOTAL | | | 4006 | 1 | | | | | 899 | 3088 | |

Table 4-1. Inventory and Status by Tanks - Single-Shell Tanks

All volume data obtained from Tank Waste Information Network System (TWINS)

| | | | | Waste Volumes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tank Number | Tank Integrity | Tank Status | Total Waste (Kgal) | Super-natant Liquid (Kgal) | Drainable Interstitial Liquid (Kgal) | Pumped this Month (Kgal) | Total Pumped (Kgal) | Drainable Liquid Remaining (Kgal) | Sludge (Kgal) | Salt-cake (Kgal) | Solids Volume Update |
| | | | | | 241-SX TANK FARM STATUS | | | | | | |
| SX-101 | SOUND | IS | 420 | 0 | 44 | 0 | 33 | 45 | 144 | 276 | 06/30/04 |
| SX-102 | SOUND | IS | 342 | 0 | 37 | 0 | 98 | 37 | 55 | 287 | 08/31/04 |
| SX-103 | SOUND | IS | 509 | 0 | 40 | 0 | 134 | 40 | 78 | 431 | 09/30/03 |
| SX-104 | ASMD LKR | IS/IP | 446 | 0 | 48 | 0 | 231 | 48 | 136 | 310 | 04/30/00 |
| SX-105 | SOUND | IS | 375 | 0 | 39 | 0 | 153 | 39 | 63 | 312 | 12/31/02 |
| SX-106 | SOUND | IS | 396 | 0 | 37 | 0 | 148 | 37 | 0 | 396 | 01/31/03 |
| SX-107 | ASMD LKR | IS/IP | 94 | 0 | 7 | 0 | 0 | 7 | 94 | 0 | 07/01/04 |
| SX-108 | ASMD LKR | IS/IP | 74 | 0 | 0 | 0 | 0 | 0 | 74 | 0 | 06/30/04 |
| SX-109 | ASMD LKR | IS/IP | 241 | 0 | 0 | 0 | 0 | 0 | 66 | 175 | 07/01/04 |
| SX-110 | ASMD LKR | IS/IP | 56 | 0 | 0 | 0 | 0 | 0 | 49 | 7 | 07/01/04 |
| SX-111 | ASMD LKR | IS/IP | 115 | 0 | 11 | 0 | 0 | 11 | 97 | 18 | 07/01/04 |
| SX-112 | ASMD LKR | IS/IP | 75 | 0 | 6 | 0 | 0 | 6 | 75 | 0 | 07/01/04 |
| SX-113 | ASMD LKR | IS/IP | 19 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 01/01/02 |
| SX-114 | ASMD LKR | IS/IP | 155 | 0 | 30 | 0 | 0 | 30 | 126 | 29 | 07/01/04 |
| SX-115 | ASMD LKR | IS/IP | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 01/01/02 |
| 15 TANKS - TOTAL | | | 3321 | 0 | | | | | 1080 | 2241 | |
| | | | | | 241-T TANK FARM STATUS | | | | | | |
| T-101 | ASMD LKR | IS | 99 | 0 | 16 | 0 | 25 | 16 | 37 | 62 | 06/30/04 |
| T-102 | SOUND | IS/IP | 32 | 13 | 3 | 0 | 0 | 16 | 19 | 0 | 08/31/84 |
| T-103 | ASMD LKR | IS/IP | 27 | 4 | 3 | 0 | 0 | 7 | 23 | 0 | 11/29/83 |
| T-104 | SOUND | IS | 317 | 0 | 31 | 0 | 150 | 31 | 317 | 0 | 11/30/99 |
| T-105 | SOUND | IS/IP | 98 | 0 | 5 | 0 | 0 | 5 | 98 | 0 | 05/29/87 |
| T-106 | ASMD LKR | IS/IP | 22 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 01/01/01 |
| T-107 | ASMD LKR | IS | 173 | 0 | 34 | 0 | 11 | 34 | 173 | 0 | 05/31/96 |
| T-108 | ASMD LKR | IS/IP | 16 | 0 | 4 | 0 | 0 | 4 | 5 | 11 | 01/01/01 |
| T-109 | ASMD LKR | IS/IP | 62 | 0 | 11 | 0 | 0 | 11 | 0 | 62 | 01/01/02 |
| T-110 | SOUND | IS | 370 | 1 | 48 | 0 | 50 | 49 | 369 | 0 | 03/31/02 |
| T-111 | ASMD LKR | IS | 447 | 0 | 38 | 0 | 10 | 38 | 447 | 0 | 01/01/02 |
| T-112 | SOUND | IS/IP | 67 | 7 | 4 | 0 | 0 | 11 | 60 | 0 | 04/28/82 |
| T-201 | SOUND | IS/IP | 30 | 2 | 4 | 0 | 0 | 6 | 28 | 0 | 07/01/04 |
| T-202 | SOUND | IS/IP | 20 | 0 | 3 | 0 | 0 | 3 | 20 | 0 | 07/01/04 |
| T-203 | SOUND | IS/IP | 36 | 0 | 5 | 0 | 0 | 5 | 36 | 0 | 07/01/04 |
| T-204 | SOUND | IS/IP | 36 | 0 | 5 | 0 | 0 | 5 | 36 | 0 | 07/01/04 |
| 16 TANKS - TOTAL | | | 1852 | 27 | | | | | 1690 | 135 | |
| | | | | | 241-TX TANK FARM STATUS | | | | | | |
| TX-101 | SOUND | IS/IP/CCS | 91 | 0 | 7 | 0 | 0 | 7 | 74 | 17 | 01/01/02 |
| TX-102 | SOUND | IS/IP/CCS | 217 | 0 | 27 | 0 | 94 | 27 | 2 | 215 | 03/31/03 |
| TX-103 | SOUND | IS/IP/CCS | 145 | 0 | 18 | 0 | 68 | 18 | 0 | 145 | 01/01/02 |
| TX-104 | SOUND | IS/IP/CCS | 69 | 2 | 9 | 0 | 4 | 11 | 34 | 33 | 06/30/04 |
| TX-105 | ASMD LKR | IS/IP/CCS | 576 | 0 | 25 | 0 | 122 | 25 | 8 | 568 | 01/01/02 |
| TX-106 | SOUND | IS/IP/CCS | 348 | 0 | 37 | 0 | 135 | 37 | 5 | 343 | 03/31/02 |
| TX-107 | ASMD LKR | IS/IP/CCS | 30 | 0 | 7 | 0 | 0 | 7 | 0 | 30 | 01/31/03 |
| TX-108 | SOUND | IS/IP/CCS | 127 | 0 | 8 | 0 | 14 | 8 | 6 | 121 | 06/30/04 |
| TX-109 | SOUND | IS/IP/CCS | 363 | 0 | 6 | 0 | 72 | 6 | 363 | 0 | 01/01/02 |
| TX-110 | ASMD LKR | IS/IP/CCS | 467 | 0 | 14 | 0 | 115 | 14 | 37 | 430 | 01/01/02 |
| TX-111 | SOUND | IS/IP/CCS | 364 | 0 | 10 | 0 | 98 | 10 | 43 | 321 | 06/30/04 |
| TX-112 | SOUND | IS/IP/CCS | 634 | 0 | 26 | 0 | 94 | 26 | 0 | 634 | 01/01/02 |
| TX-113 | ASMD LKR | IS/IP/CCS | 638 | 0 | 18 | 0 | 19 | 18 | 93 | 545 | 06/30/04 |
| TX-114 | ASMD LKR | IS/IP/CCS | 532 | 0 | 17 | 0 | 104 | 17 | 4 | 528 | 01/01/02 |
| TX-115 | ASMD LKR | IS/IP/CCS | 553 | 0 | 25 | 0 | 99 | 25 | 8 | 545 | 06/30/04 |
| TX-116 | ASMD LKR | IS/IP/CCS | 599 | 0 | 21 | 0 | 24 | 21 | 66 | 533 | 04/30/03 |
| TX-117 | ASMD LKR | IS/IP/CCS | 480 | 0 | 10 | 0 | 54 | 10 | 29 | 451 | 06/30/04 |
| TX-118 | SOUND | IS/IP/CCS | 247 | 0 | 31 | 0 | 89 | 31 | 0 | 247 | 06/30/04 |
| 18 TANKS - TOTAL | | | 6480 | 2 | | | | | 772 | 5706 | |

## Table 4-1. Inventory and Status by Tanks - Single-Shell Tanks

All volume data obtained from Tank Waste Information Network System (TWINS)

| | | | | Waste Volumes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tank Number | Tank Integrity | Tank Status | Total Waste (Kgal) | Super-natant Liquid (Kgal) | Drainable Interstitial Liquid (Kgal) | Pumped this Month (Kgal) | Total Pumped (Kgal) | Drainable Liquid Remaining (Kgal) | Sludge (Kgal) | Salt-cake (Kgal) | Solids Volume Update |
| | | | | | 241-TY TANK FARM STATUS | | | | | | |
| TY-101 | ASMD LKR | IS/IP/CCS | 118 | 0 | 2 | 0 | 8 | 2 | 42 | 76 | 07/01/05 |
| TY-102 | SOUND | IS/IP/CCS | 69 | 0 | 13 | 0 | 7 | 13 | 0 | 69 | 01/01/02 |
| TY-103 | ASMD LKR | IS/IP/CCS | 154 | 0 | 23 | 0 | 12 | 23 | 103 | 51 | 06/30/04 |
| TY-104 | ASMD LKR | IS/IP/CCS | 44 | 1 | 4 | 0 | 0 | 5 | 43 | 0 | 03/31/02 |
| TY-105 | ASMD LKR | IS/IP/CCS | 231 | 0 | 12 | 0 | 4 | 12 | 231 | 0 | 04/28/82 |
| TY-106 | ASMD LKR | IS/IP/CCS | 16 | 0 | 1 | 0 | 0 | 1 | 16 | 0 | 01/01/02 |
| 6 TANKS - TOTALS | | | 632 | 1 | | | | | 435 | 196 | |
| | | | | | 241-U TANK FARM STATUS | | | | | | |
| U-101 | ASMD LKR | IS/IP | 23 | 0 | 4 | 0 | 0 | 4 | 23 | 0 | 06/30/04 |
| U-102 | SOUND | IS | 327 | 1 | 37 | 0 | 87 | 38 | 43 | 283 | 12/31/02 |
| U-103 | SOUND | IS | 417 | 1 | 33 | 0 | 99 | 34 | 11 | 405 | 01/01/05 |
| U-104 | ASMD LKR | IS/IP | 54 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 01/01/02 |
| U-105 | SOUND | IS | 353 | 0 | 44 | 0 | 88 | 44 | 32 | 321 | 03/30/01 |
| U-106 | SOUND | IS | 170 | 2 | 36 | 0 | 39 | 39 | 0 | 168 | 06/30/04 |
| U-107 | SOUND | IS | 294 | 0 | 32 | 0 | 135 | 32 | 15 | 279 | 12/31/03 |
| U-108 | SOUND | IS | 434 | 0 | 46 | 0 | 115 | 46 | 29 | 405 | 09/30/04 |
| U-109 | SOUND | IS | 401 | 0 | 47 | 0 | 78 | 47 | 35 | 366 | 04/30/02 |
| U-110 | ASMD LKR | IS | 176 | 0 | 16 | 0 | 0 | 16 | 176 | 0 | 01/01/02 |
| U-111 | SOUND | IS | 222 | 0 | 31 | 0 | 86 | 31 | 26 | 196 | 08/31/03 |
| U-112 | ASMD LKR | IS/IP | 45 | 0 | 4 | 0 | 0 | 4 | 45 | 0 | 02/10/84 |
| U-201 | SOUND | IS/IP | 4 | 1 | 1 | 0 | 0 | 2 | 3 | 0 | 06/30/03 |
| U-202 | SOUND | IS/IP | 4 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 06/30/03 |
| U-203 | SOUND | IS/IP | 3 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 06/30/03 |
| U-204 | SOUND | IS/IP | 3 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 06/30/03 |
| 16 TANKS - TOTALS | | | 2930 | 8 | | | | | 499 | 2423 | |

Note: +/- 1 Kgal difference in volumes is due to rounding.
Tank farm totals do not include volumes from tanks in retrieval

Table 4-1 Footnotes:

(1) C-106: Nominal Waste Volume: Total waste 2771 gallons; sludge 2686 gallons; supernatant 85 gallons (RPP-20577 Rev. 0 *Stage 2 Retrieval Data Report for Single-Shell Tank 241-C-106*)

(2) C-202: Nominal Waste Volume: Total waste 147 gallons; sludge 145 gallons; supernatant 2 gallons (RPP-RPT-29095 Rev. 0 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-202*)

(3) Hanford Federal Facility Agreement and Consent Order (signed August 2004) modified Milestone M-45-00C (Change Order M-45-04-01) changed the regulatory requirements for retrieval of waste in tanks S-103, S-105, and S-106. "Retrieval" status in these tanks is thereby rescinded.

(4) Tank A-101 contains retained gas in saltcake; tanks S-102, S-111, U-103, and U-109 contain retained gas in saltcake and sludge.

(5) C-203 Nominal Waste Volume: Total waste 139 gallons; sludge 126 gallons; supernatant 13 gallons (RPP-RPT-26475 Rev. 1 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-203*)

(6) S-102: Volume estimate: Total waste 34000 gallons

(7) S-112: Nominal Waste Volume: Total waste 2387 gallons; sludge/saltcake 2263 gallons; supernatant 124 gallons (RRP-RPT-35112 Rev 0 *Retrieval Data Report for Single-Shell Tank 241-S-112*)

Table 4-1 Footnotes:

(8) C-201: Nominal Waste Volume: Total waste 144 gallons; sludge 145 gallons; supernatant 2 gallons (RPP-29441 Rev. 0 *Post-Retrieval Waste Volume Determination for Single-Shell Tank 241-C-201*)

(9) C-103: Nominal Waste Volume: Total waste 2529 gallons; sludge 2282 gallons; supernatant 247 gallons (RPP-RPT-33060 Rev. 0 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-103*)

(10) C-204 Nominal Waste Volume: Total waste 137 gallons; sludge 134 gallons; supernatant 3 gallons (RPP-RPT-34062 Rev. 0 *Demonstration Retrieval Data Report for Single-Shell Tank 241-C-204*)

(11) C-108: Volume estimate: Total waste 7700 gallons.

(12) C-109: Volume estimate: Total waste 9900 gallons

Table 4-2. Single-Shell Tanks Interim Stabilization Status

| Tank Number | Tank Integrity | Interim Stabilization Date (1) | Interim Stabilization Method | Tank Number | Tank Integrity | Interim Stabilization Date (1) | Interim Stabilization Method |
|---|---|---|---|---|---|---|---|
| A-101 | SOUND | 11/03 | JET (16) | BY-107 | ASMD LKR | 07/79 | JET |
| A-102 | SOUND | 08/89 | SN | BY-108 | ASMD LKR | 02/85 | JET |
| A-103 | ASMD LKR | 06/88 | AR | BY-109 | SOUND | 07/97 | JET |
| A-104 | ASMD LKR | 09/78 | AR (3) | BY-110 | SOUND | 01/85 | JET |
| A-105 | ASMD LKR | 07/79 | AR | BY-111 | SOUND | 01/85 | JET |
| A-106 | SOUND | 08/82 | AR | BY-112 | SOUND | 06/84 | JET |
| AX-101 | SOUND | 06/03 | JET (9) | C-101 | ASMD LKR | 11/83 | AR |
| AX-102 | ASMD LKR | 09/88 | SN | C-102 | SOUND | 09/95 | JET (2) |
| AX-103 | SOUND | 08/87 | AR | C-103 | SOUND | Retrieval completed | |
| AX-104 | ASMD LKR | 08/81 | AR | C-104 | SOUND | 09/89 | SN |
| B-101 | ASMD LKR | 03/81 | SN | C-105 | SOUND | 10/95 | AR |
| B-102 | SOUND | 08/85 | SN | C-106 | SOUND | Retrieval Completed 12/31/03 | |
| B-103 | ASMD LKR | 02/85 | SN | C-107 | SOUND | 09/95 | JET |
| B-104 | SOUND | 06/85 | SN | C-108 | SOUND | Retrieval in progress | |
| B-105 | ASMD LKR | 12/84 | AR | C-109 | SOUND | Retrieval in progress | |
| B-106 | SOUND | 03/85 | SN | C-110 | ASMD LKR | 05/95 | JET |
| B-107 | ASMD LKR | 03/85 | SN | C-111 | ASMD LKR | 03/84 | SN |
| B-108 | SOUND | 05/85 | SN | C-112 | SOUND | 09/90 | AR |
| B-109 | SOUND | 04/85 | SN | C-201 | ASMD LKR | Retrieval Completed 03/23/06 | |
| B-110 | ASMD LKR | 12/84 | AR | C-202 | ASMD LKR | Retrieval Completed 08/11/05 | |
| B-111 | ASMD LKR | 06/85 | SN | C-203 | ASMD LKR | Retrieval Completed 03/24/05 | |
| B-112 | ASMD LKR | 05/85 | SN | C-204 | ASMD LKR | Retrieval Completed 12/13/06 | |
| B-201 | ASMD LKR | 08/81 | AR (3) | S-101 | SOUND | 12/03 | JET (18) |
| B-202 | SOUND | 05/85 | AR (2) | S-102 | SOUND | Retrieval in progress | |
| B-203 | ASMD LKR | 06/84 | AR | S-103 | SOUND | 04/00 | JET |
| B-204 | ASMD LKR | 06/84 | AR | S-104 | ASMD LKR | 12/84 | AR |
| BX-101 | ASMD LKR | 09/78 | AR (3) | S-105 | SOUND | 09/88 | JET |
| BX-102 | ASMD LKR | 11/78 | AR | S-106 | SOUND | 02/01 | JET |
| BX-103 | SOUND | 11/83 | AR (2) (3) | S-107 | SOUND | 08/03 | JET (13) |
| BX-104 | SOUND | 09/89 | SN | S-108 | SOUND | 12/96 | JET |
| BX-105 | SOUND | 03/81 | SN | S-109 | SOUND | 06/01 | JET |
| BX-106 | SOUND | 07/95 | SN | S-110 | SOUND | 01/97 | JET |
| BX-107 | SOUND | 09/90 | JET | S-111 | SOUND | 05/05 | Jet (17) |
| BX-108 | ASMD LKR | 07/79 | SN | S-112 | SOUND | Retrieval completed | |
| BX-109 | SOUND | 08/90 | JET | SX-101 | SOUND | 08/03 | JET (12) |
| BX-110 | ASMD LKR | 08/85 | SN | SX-102 | SOUND | 08/03 | JET (14) |
| BX-111 | ASMD LKR | 03/95 | JET | SX-103 | SOUND | 05/03 | JET (8) |
| BX-112 | SOUND | 09/90 | JET | SX-104 | ASMD LKR | 04/00 | JET |
| BY-101 | SOUND | 05/84 | JET | SX-105 | SOUND | 08/02 | JET (6) |
| BY-102 | SOUND | 04/95 | JET | SX-106 | SOUND | 05/00 | JET |
| BY-103 | ASMD LKR | 11/97 | JET (2) | SX-107 | ASMD LKR | 10/79 | AR |
| BY-104 | SOUND | 01/85 | JET | SX-108 | ASMD LKR | 08/79 | AR |
| BY-105 | ASMD LKR | 03/03 | JET | SX-109 | ASMD LKR | 05/81 | AR |
| BY-106 | ASMD LKR | 12/03 | JET (19) | SX-110 | ASMD LKR | 08/79 | AR |

Table 4-2. Single-Shell Tanks Interim Stabilization Status

| Tank Number | Tank Integrity | Interim Stabilization Date (1) | Interim Stabilization Method | Tank Number | Tank Integrity | Interim Stabilization Date (1) | Interim Stabilization Method |
|---|---|---|---|---|---|---|---|
| SX-111 | ASMD LKR | 07/79 | SN | TX-111 | SOUND | 04/83 | JET |
| SX-112 | ASMD LKR | 07/79 | AR | TX-112 | SOUND | 04/83 | JET |
| SX-113 | ASMD LKR | 11/78 | AR | TX-113 | ASMD LKR | 04/83 | JET |
| SX-114 | ASMD LKR | 07/79 | AR | TX-114 | ASMD LKR | 04/83 | JET |
| SX-115 | ASMD LKR | 09/78 | AR (3) | TX-115 | ASMD LKR | 09/83 | JET |
| T-101 | ASMD LKR | 04/93 | SN | TX-116 | ASMD LKR | 04/83 | JET |
| T-102 | SOUND | 03/81 | AR (2)(3) | TX-117 | ASMD LKR | 03/83 | JET |
| T-103 | ASMD LKR | 11/83 | AR | TX-118 | SOUND | 04/83 | JET |
| T-104 | SOUND | 11/99 | JET | TY-101 | ASMD LKR | 04/83 | JET |
| T-105 | SOUND | 06/87 | AR | TY-102 | SOUND | 09/79 | AR |
| T-106 | ASMD LKR | 08/81 | AR | TY-103 | ASMD LKR | 02/83 | JET |
| T-107 | ASMD LKR | 05/96 | AR | TY-104 | ASND KJR | 11/83 | AR |
| T-108 | ASMD LKR | 11/78 | AR | TY-105 | ASMD LKR | 02/83 | JET |
| T-109 | ASMD LKR | 12/84 | AR | TY-106 | ASMD LKR | 11/78 | AR |
| T-110 | SOUND | 01/00 | JET | U-101 | ASMD LKR | 09/79 | AR |
| T-111 | ASMD LKR | 02/95 | JET | U-102 | SOUND | 06/02 | JET (5) |
| T-112 | SOUND | 03/81 | AR (2)(3) | U-103 | SOUND | 09/00 | JET |
| T-201 | SOUND | 04/81 | AR (3) | U-104 | ASMD LKR | 10/78 | AR |
| T-202 | SOUND | 08/81 | AR | U-105 | SOUND | 03/01 | JET |
| T-203 | SOUND | 04/81 | AR | U-106 | SOUND | 03/01 | JET |
| T-204 | SOUND | 08/81 | AR | U-107 | SOUND | 10/03 | JET (15) |
| TX-101 | SOUND | 02/84 | AR | U-108 | SOUND | 03/04 | (20) |
| TX-102 | SOUND | 04/83 | JET | U-109 | SOUND | 04/02 | JET (4) |
| TX-103 | SOUND | 08/83 | JET | U-110 | ASMD LKR | 12/84 | AR |
| TX-104 | SOUND | 09/79 | SN | U-111 | SOUND | 06/03 | JET (10) |
| TX-105 | ASMD LKR | 04/83 | JET | U-112 | ASMD LKR | 09/79 | AR |
| TX-106 | SOUND | 06/83 | JET | U-201 | SOUND | 08/79 | AR |
| TX-107 | ASMD LKR | 10/79 | AR | U-202 | SOUND | 08/79 | SN |
| TX-108 | SOUND | 03/83 | JET | U-203 | SOUND | 08/79 | AR |
| TX-109 | SOUND | 04/83 | JET | U-204 | SOUND | 08/79 | SN |
| TX-110 | ASMD LKR | 04/83 | JET | | | | |

Table 4-2 Legend:

| | |
|---|---|
| AR | Administratively Interim Stabilized |
| JET | Saltwell Jet Pumped to Remove Drainable Interstitial Liquid |
| SN | Supernatant Pumped (Non-Jet Pumped) |
| ASMD LKR | Assumed Leaker |

| | |
|---|---|
| Interim Stabilized Single-Shell Tanks | 149 (21) |
| Total Single-Shell Tanks | 149 |

Table 4-2 Footnotes:

(1) These dates indicate when the tanks were actually interim stabilized. In some cases, the official interim stabilization documents were issued at a later date.

Table 4-2 Footnotes:

(2) Although tanks 241-BX-103, T-102, and T-112 met the interim stabilization administrative procedure at the time they were stabilized, they no longer meet the updated administrative procedure. The tanks were re-evaluated in 1996 and a letter was issued to DOE-RL recommending that no further pumping be performed on these tanks, based on an economic evaluation. In February 2000, it was determined that five tanks no longer met the stabilization criteria (241-BX-103, T-102, and T-112 exceed the supernatant criteria, and BY-103 and C-102 exceed the Drainable Interstitial Liquid [DIL]criteria).

An intrusion investigation was completed on tank 241-B-202 in 1996 and it was determined that this tank no longer meets the recently updated administrative procedure for 200 series tanks.

(3) Original interim stabilization data are missing on four tanks: 241-B-201, T-102, T-112, and T-201. In February 2001, three additional tanks were added to those missing stabilization data: 241-A-104, BX-101, and SX-115.

(4) Tank 241-U-109 was declared Interim Stabilized on April 5, 2002. The declaration letter to DOE was issued on June 20, 2002. The surface is primarily a brown colored waste with irregular patches of white salt crystal. Approximately 70% of the waste surface is covered by the salt formations. The waste surface appears dry and shows signs of cracking due to saltwell pumping. There is no visible liquid within the tank.

(5) Tank 241-U-102 was declared Interim Stabilized on June 19, 2002. The declaration letter to DOE was issued June 28, 2002. The surface is primarily a gray-brown colored cracked waste with irregular patches of white salt crystal. Approximately 50% of the waste surface is covered by the salt formations. The waste surface appears dry and shows signs of cracking due to saltwell pumping. There is approximately a 5-foot wide pool of visible liquid within the saltwell screen depression.

(6) Tank 241-SX-105 was declared Interim Stabilized on August 1, 2002; the declaration letter to DOE was issued August 20, 2002. The surface is a rough, yellowish-gray saltcake waste with an irregular surface of visible cracks and shelves due to saltwell pumping. The waste surface appears to be dry and shows no standing water within the tank.

(7) Tank 241-BY-105 was declared Interim Stabilized on March 7, 2003; the declaration letter to DOE was issued March 25, 2003. An in-tank video was taken January 5, 2003. The surface is a rough, yellowish brown saltcake waste with an irregular surface of visible lumps and shelves that were created as the surface was dried out by saltwell pumping. The waste surface appears to be dry and shows no standing water within the tank. A large hole around the saltwell screen shows no evidence of supernatant liquid.

(8) Tank 241-SX-103 was declared Interim Stabilized on May 31, 2003; the declaration letter to DOE was issued June 13, 2003. An in-tank video was taken December 31, 2001. The upper waste surface is uneven and rough, with many cracks and shelves due to surface drying caused by saltwell pumping. All estimations regarding waste dimensions were obtained by comparison with known dimensions of installed in-tank equipment.

(9) Tank 241-AX-101 was declared Interim Stabilized on June 2, 2003. The declaration letter to DOE was issued January 19, 2004. An in-tank video was taken November 5, 2003. The surface is a dry flaky, crystalline, yellowish-white saltcake waste in a fairly uniform surface of large cracks that were created as the surface dried out by saltwell pumping. The surface is dry and shows no standing water in the tank.

(10) Tank 241-U-111 was declared Interim Stabilized on June 25, 2003, due to major equipment failure; the declaration letter to DOE was issued July 14, 2003. An in-tank video was taken March 25, 2003. The surface is a dry, crusty, flat surface saltcake waste with a fairly uniform surface of large cracks and pocked holes that were created as the surface was dried out by saltwell pumping. The waste surface is dry and shows no standing water.

(11) Tank 241-C-103 was declared Interim Stabilized on July 11, 2003, due to major equipment failure; the declaration letter to DOE was issued August 13, 2003. An in-tank video was taken March 3, 2003. The surface is a dry-cracked brown sludge type waste, which appears to be relatively level and to have more cracking near the tank walls. There is a roughly 3-foot diameter supernatant pool around the saltwell screen. There are also small supernatant pools around two risers and many liquid pockets across the center waste surface. The ENRAF is out of service and there is no liquid observation well (LOW) installed in the tank.

Table 4-2 Footnotes:

(12) Tank 241-SX-101 was declared Interim Stabilized on August 14, 2003; the declaration letter to DOE was issued August 22, 2003. An in-tank video was taken August 6, 2003. The surface is a rough, yellowish gray saltcake waste with an irregular surface of visible cracks and shelves that were created as the waste was dried out by saltwell pumping. The waste surface appears to be dry and shows no standing water. A cylindrical pool (approximately 5 foot diameter) around the saltwell screen shows evidence of apparent supernatant liquid, but upon closer examination, was determined to be interstitial liquid.

(13) Tank 241-S-107 was declared Interim Stabilized on August 28, 2003, due to major equipment failure. Interim Stabilization documentation was issued February 4, 2004; the declaration letter to DOE was issued February 26, 2004. An in-tank video was taken December 12, 2003. The waste appears as a flat, dark, sludge-type waste with an irregular surface of visible cracks created as the waste dried out from saltwell pumping. The waste surface appears to be dry except for a small pool surrounding the saltwell screen.

(14) Tank 241-SX-102 was declared Interim Stabilized on August 28, 2003, due to major equipment failure. The declaration letter to DOE was issued August 4, 2004. An in-tank video was taken December 10, 2003. The waste is a rough, yellowish-tray saltcake with an irregular surface of visible cracks and shelves that were created as the waste was dried out by saltwell pumping. The waste surface appears to be dry and shows no standing water on the surface.

(15) Tank 241-U-107 was declared Interim Stabilized on October 7, 2003. The declaration letter to DOE was issued January 19, 2004. An in-tank video was taken February 4, 2003. The surface is a smooth, brownish saltcake with irregular patches of white salt crystals created as the waste was dried out from saltwell pumping. The waste surface appears to be dry and shows no standing water on the surface.

(16) Tank 241-A-101 was declared Interim Stabilized on November 10, 2003. The declaration letter to DOE was issued June 30, 2004. An in-tank video was taken September 5, 2003. The waste appears as a flat, dark, sludge-type waste with an irregular surface with white clumps of a saltcake-type material. Cracks in the waste surface were created as the waste was dried out by saltwell pumping. The waste surface is dry except for a small pool around the saltwell screen.

(17) Tank 241-S-111 was declared Interim Stabilized on December 15, 2003, due to major equipment failure. The declaration letter to DOE was issued May 26, 2005.

(18) Tank 241-S-101 was declared Interim Stabilized on December 29, 2003. The declaration letter to DOE was issued April 30, 2004. An in-tank video was taken March 2, 2004. The waste appears to be a flat, dark, sludge-type waste with an irregular surface with white clumps of saltcake. Also visible are cracks in the waste surface that were created as the waste was dried out by saltwell pumping. The waste surface is dry except for this small pool.

(19) Tank BY-106 was declared Interim Stabilized on December 31, 2003. The declaration letter to DOE was issued June 30, 2005.

(20) Tank U-108 was declared Interim Stabilized on March 18, 2004, due to major equipment failure. The declaration letter to DOE was issued September 8, 2004. An in-tank video was taken March 8, 2004. The waste is a smooth, brownish saltcake waste with irregular patches of white salt crystals that were created as the waste was dried out by saltwell pumping. The surface appears to be dry with evidence of cracking and no standing water.

(21) Stabilization requirements are held in abeyance during retrieval. (3rd Amendment to Consent Decree CT-99-5076-EFS)

Table 4-3. Single-Shell Tank Leak Volume Estimates

| Tank Number | Confirmed or Assumed Leaker (3) | Estimated Leak Volume Gallons (2) | Interim Stabilized (11) | Leak Estimate | |
|---|---|---|---|---|---|
| | | | | Updated | Reference |
| 241-A-103 | 1987 | 5500 (8) | 06/88 | 1987 | (j) |
| 241-A-104 | 1975 | 500 to 2500 | 09/78 | 1983 | (a)(p) |
| 241-A-105 (1) | 1963 | 10000 to 270000 | 07/79 | 1991 | (b)(c) |
| 241-AX-102 | 1988 | 3000 (8) | 09/88 | 1989 | (h) |
| 241-AX-104 | 1977 | -- (6) | 08/81 | 1989 | (g) |
| 241-B-101 | 1974 | -- (6) | 03/81 | 1989 | (g) |
| 241-B-103 | 1978 | -- (6) | 02/85 | 1989 | (g) |
| 241-B-105 | 1978 | -- (6) | 12/84 | 1989 | (g) |
| 241-B-107 | 1980 | 8000 (8) | 03/85 | 1986 | (d)(f) |
| 241-B-110 | 1981 | 10000 (8) | 03/85 | 1986 | (d) |
| 241-B-111 | 1978 | -- (6) | 06/85 | 1989 | (g) |
| 241-B-112 | 1978 | 2000 | 05/85 | 1989 | (g) |
| 241-B-201 | 1980 | 1200 (8) | 08/81 | 1984 | (e)(f) |
| 241-B-203 | 1983 | 300 (8) | 06/84 | 1986 | (d) |
| 241-B-204 | 1984 | 400 (8) | 06/84 | 1989 | (g) |
| 241-BX-101 | 1972 | -- (6) | 09/78 | 1989 | (g) |
| 241-BX-102 | 1971 | 70000 | 11/78 | 1986 | (d) |
| 241-BX-108 | 1974 | 2500 | 07/79 | 1986 | (d) |
| 241-BX-110 | 1976 | -- (6) | 08/85 | 1989 | (g) |
| 241-BX-111 | 1984 (13) | -- (6) | 03/95 | 1993 | (g) |
| 241-BY-103 | 1973 | <5000 | 11/97 | 1983 | (a) |
| 241-BY-105 | 1984 | -- (6) | 03/03 | 1989 | (g) |
| 241-BY-106 | 1984 | -- (6) | N/A | 1989 | (g) |
| 241-BY-107 | 1984 | 15100 (8) | 07/79 | 1989 | (g) |
| 241-BY-108 | 1972 | <5000 | 02/85 | 1983 | (a) |
| 241-C-101 (15) | 1980 | 20000 (8)(10) | 11/83 | 1986 | (d) |
| 241-C-110 (15) | 1984 | 2000 | 05/95 | 1989 | (g) |
| 241-C-111 (15) | 1968 | 5500 (8) | 03/84 | 1989 | (g) |
| 241-C-201 (4) | 1988 | 550 | 03/82 | 1987 | (i) |
| 241-C-202 (4) | 1988 | 450 | 08/81 | 1987 | (i) |
| 241-C-203 | 1984 | 400 (8) | 03/82 | 1986 | (d) |
| 241-C-204 (4) | 1988 | 350 | 09/82 | 1987 | (i) |
| 241-S-104 | 1968 | 24000 (8) | 12/84 | 1989 | (g) |
| 241-SX-104 | 1988 | 6000 (8) | 04/00 | 1988 | (k) |
| 241-SX-107 | 1964 | <5000 | 10/79 | 1983 | (a) |
| 241-SX-108 (5)(14) | 1962 | 2400 to 35000 | 08/79 | 1991 | (l)(p)(s) |
| 241-SX-109 (5)(14) | 1965 | <10000 | 05/81 | 1992 | (m)(s) |
| 241-SX-110 | 1976 | 5500 (8) | 08/79 | 1989 | (g) |
| 241-SX-111 (14) | 1974 | 500 to 2000 | 07/79 | 1986 | (d)(s) |
| 241-SX-112 (14) | 1969 | 30000 | 07/79 | 1986 | (d)(s) |
| 241-SX-113 | 1962 | 15000 | 11/78 | 1986 | (d) |
| 241-SX-114 | 1972 | -- (6) | 07/79 | 1989 | (g) |
| 241-SX-115 | 1965 | 50000 | 09/78 | 1992 | (n) |
| 241-T-101 | 1992 | 7500 (8) | 04/93 | 1992 | (o) |
| 241-T-103 | 1974 | <1000 (8) | 11/83 | 1989 | (g) |
| 241-T-106 | 1973 | 115000 (8) | 08/81 | 1986 | (d) |
| 241-T-107 | 1984 | -- (6) | 05/96 | 1989 | (g) |
| 241-T-108 | 1974 | <1000 (8) | 11/78 | 1980 | (f) |
| 241-T-109 | 1974 | <1000 (8) | 12/84 | 1989 | (g) |

Table 4-3. Single-Shell Tank Leak Volume Estimates

| Tank Number | Confirmed or Assumed Leaker (3) | Estimated Leak Volume Gallons (2) | Interim Stabilized (11) | Leak Estimate | |
|---|---|---|---|---|---|
| | | | | Updated | Reference |
| 241-T-111 | 1979, 1994 (12) | <1000 (8) | 02/95 | 1994 | (f)(r) |
| 241-TX-105 | 1977 | -- (6) | 04/83 | 1989 | (g) |
| 241-TX-107 (5) | 1984 | 2500 | 10/79 | 1986 | (d) |
| 241-TX-110 | 1977 | -- (6) | 04/83 | 1989 | (g) |
| 241-TX-113 | 1974 | -- (6) | 04/83 | 1989 | (g) |
| 241-TX-114 | 1974 | -- (6) | 04/83 | 1989 | (g) |
| 241-TX-115 | 1977 | -- (6) | 09/83 | 1989 | (g) |
| 241-TX-116 | 1977 | -- (6) | 04/83 | 1989 | (g) |
| 241-TX-117 | 1977 | -- (6) | 03/83 | 1989 | (g) |
| 241-TY-101 | 1973 | <1000 (8) | 04/83 | 1980 | (f) |
| 241-TY-103 | 1973 | 3000 | 02/83 | 1986 | (d) |
| 241-TY-104 | 1981 | 1400 (8) | 11/83 | 1986 | (d) |
| 241-TY-105 | 1960 | 35000 | 02/83 | 1986 | (d) |
| 241-TY-106 | 1959 | 20000 | 11/78 | 1986 | (d) |
| 241-U-101 | 1959 | 30000 | 09/79 | 1986 | (d) |
| 241-U-104 | 1961 | 55000 | 10/78 | 1986 | (d) |
| 241-U-110 | 1975 | 5000 to 8100 (8) | 12/84 | 1986 | (d)(p) |
| 241-U-112 | 1980 | 8500 (8) | 09/79 | 1986 | (d) |
| 67 Tanks | | | | | |

Table 4-3 Footnotes:

(1) Current estimates [see Reference (b)] are that 610 Kgallons of cooling water was added to tank A-105 from November 1970 to December 1978 to aid in evaporative cooling. In accordance with Dangerous Waste Regulations [Washington Administrative Code 173-303-070 (2)(a)(ii), as amended, Washington State Department of Ecology, 1990, Olympia, Washington], any of this cooling water that has been added and subsequently leaked from the tank must be classified as a waste and should be included in the total leak volume. In August 1991, the leak volume estimate for this tank was updated in accordance with the WAC regulations. Previous estimates excluded the cooling water leaks from the total leak volume estimates because the waste content (concentration) in the cooling water which leaked should be much less than the original liquid waste in the tank (the sludge is relatively insoluble). The total leak volume estimate in this report (10 to 277 Kgallons) is based on the following (see References):

a. Reference (b) contains an estimate of 5 to 15 Kgallons for the initial leak prior to August 1968.

Reference (b) contains an estimate of 5 to 30 Kgallons for the leak while the tank was being sluiced from August 1968 to November 1970.

Reference (b) contains an estimate of 610 Kgallons of cooling water added to the tank from November 1970 to December 1978, but it was estimated that the leakage was small during this period. This reference contains the statement "Sufficient heat was generated in the tank to evaporate most, and perhaps nearly all, of this water." This results in a low estimate of zero gallons leakage from November 1970 to December 1978.

b. Reference (c) contains an estimate that 378 to 410 Kgallons evaporated out of the tank from November 1970 to December 1978. Subtracting the minimum evaporation estimate from the cooling water added estimate provides a range from 0 to 232 Kgallons of cooling water leakage from November 1970 to December 1978.

| | Low Estimate | High Estimate |
|---|---|---|
| Prior to August 1968 | 5,000 | 15,000 |
| August 1968 to November 1970 | 5,000 | 30,000 |
| November 1970 to December 1978 | 0 | 232,000 |
| Totals | 10,000 | 277,000 |

Table 4-3 Footnotes:

(2) Tank leak volume estimates presented here are being updated as a result of tank leak volume assessments and review of tanks for retrieval/closure consideration. Tank leak volume estimates presented here do not include (with some exceptions), such things as: (a) cooling/raw water leaks, (b) intrusions (rain infiltration) and subsequent leaks, (c) leaks inside the tank farm but not through the tank liner (surface leaks, pipeline leaks, leaks at the joint for the overflow or fill lines, etc.), and (d) leaks from catch tanks, diversion boxes, encasements, etc.

(3) In many cases, a leak was suspected long before it was identified or confirmed. For example, Reference (d) shows that tank U-104 was suspected of leaking in 1956. The leak was confirmed in 1961. This report lists the "assumed leaker" date of 1961. Using present standards, tank U-104 would have been declared an assumed leaker in 1956. In 1984, the criteria designations of "suspected leaker," "questionable integrity," "confirmed leaker," "declared leaker," and "borderline and dormant" were merged into one category now reported as "assumed leaker." See Reference (f) for explanation of when, how long, and how fast some of the tanks leaked.

(4) The leak volume estimate date for these tanks is before the declared leaker date because the tank was in a suspected leaker or questionable integrity status; however, a leak volume had been estimated prior to the tank being reclassified.

(5) The increasing radiation levels in drywells and laterals associated with these three tanks could be indicating continuing leak or movement of existing radionuclides in the soil. There is no conclusive way to confirm these observations. (There are currently no functioning laterals and no plan to prepare them for use).

(6) Methods were used to estimate the leak volumes from these 19 tanks based on the assumption that their cumulative leakage is approximately the same as for 18 of the 24 tanks identified in footnote (9). For more details see Reference (g). The total leak volume estimate for these tanks is 150 Kgallons (rounded to the nearest Kgallon), for an average of approximately 8 Kgallons for each of 19 tanks.

(7) The total has been rounded to the nearest 50 Kgallons. Upper bound values were used in many cases in developing these estimates. It is likely that some of these tanks have not actually leaked.

(8) Leak volume estimate is based solely on observed liquid level decreases in these tanks. This is considered to be the most accurate method for estimating leak volumes.

(9) The curie content shown is as listed in the reference document and is not decayed to a consistent date: therefore, a cumulative total is inappropriate.

(10) Tank C-101 experienced a liquid level decrease in the late 1960s and was taken out of service and pumped to a minimum heel in December 1969. In 1970, the tank was classified as a "questionable integrity" tank. Liquid level data show decreases in level throughout the 1970s and the tank was saltwell pumped during the 1970s, ending in April 1979. The tank was reclassified as a "confirmed leaker" in January 1980. See References (p) and (q); refer to Reference (q) for information on the potential for there to have been leaks from other C-farm tanks (specifically, C-102, C-103, and C-109).

(11) These dates indicate when the tanks were declared to be interim stabilized. In some cases, the official interim stabilization documents were issued at a later date. Also, in some cases, the field work associated with interim stabilization was completed at an earlier date.

(12) Tank T-111 was declared an "assumed re-leaker" on February 28, 1994, due to a decreasing trend in surface level measurement. This tank was pumped, and interim stabilization completed on February 22, 1995.

(13) Tank BX-111 was declared an "assumed re-leaker" in April 1993. Preparations for pumping were delayed, following an administrative hold placed on all tank farm operations in August 1993. Pumping resumed and the tank was declared interim stabilized on March 15, 1995.

(14) The leak volume and curie release estimates on tanks SX-108, SX-109, SX-111, and SX-112 have been re-evaluated using a Historical Leak Model [see Reference (s)]. In general, the model estimates are much higher than the values listed in the table, both for volume and curies released. The values listed in the table do not reflect this revised estimate because, "In particular, it is worth emphasizing that this report was never meant to be a definitive update for the leak baseline at the Hanford Site. It was rather meant to be an attempt to view the issue of leak inventories with a new and different methodology." (This quote is from the first page of the referenced report).

Table 4-3 Footnotes:

(15) Leaks from Tanks C-101 and C-110 were re-assessed in RPP-ENV-33418 Rev. 0 *Hanford C-Farm Leak Assessments Report: 241-C-101 and 241-C-110.* The report is being revised to incorporate Tanks C-105, C-111, and C Tank Farm UPRs.

Table 4-3 References:

(a) Murthy, K. S., et al., June 1983, *Assessment of Single-Shell Tank Residual Liquid Issues at Hanford Site, Washington*, PNL-4688, Pacific Northwest Laboratory, Richland, Washington

(b) WHC, 1991a, *Tank 241-A-105 Leak Assessment*, WHC-MR-0264, Westinghouse Hanford Company, Richland, Washington

(c) WHC, 1991b, *Tank 241-A-105 Evaporation Estimate 1970 Through 1978*, WHC-EP-0410, Westinghouse Hanford Company, Richland, Washington

(d) Smith, D. A., January 1986, *Single-Shell Tank Isolation Safety Analysis Report*, SD-WM-SAR-006, Rev. 1, Rockwell Hanford Operations, Richland, Washington

(e) McCann, D. C., and T. S. Vail, September 1984, *Waste Status Summary*, RHO-RE-SR-14, Rockwell Hanford Operations, Richland, Washington

(f) Catlin, R. J., March 1980, *Assessment of the Surveillance Program of the High-Level Waste Storage Tanks at Hanford*, Office of Environmental Compliance and Review, for the U.S. Department of Energy, Washington D.C.

(g) Baumhardt, R. J., May 15, 1989, Letter to R. E. Gerton, U.S. Department of Energy-Richland Operations Office, *Single-Shell Tank Leak Volumes*, 8901832B R1, Westinghouse Hanford Company, Richland, Washington

(h) WHC, 1990a, Occurrence Report, *Surface Level Measurement Decrease in Single-Shell Tank 241-AX-102,* WHC-UO-89-023-TF-05, Westinghouse Hanford Company, Richland, Washington

(i) Groth, D. R., July 1, 1987, Internal Memorandum to R. J. Baumhardt, *Liquid Level Losses in Tanks 241-C-201, -202 and -204*, 65950-87-517, Westinghouse Hanford Company, Richland, Washington

(j) Groth, D. R., and G. C. Owens, May 15, 1987, Internal Memorandum to J. H. Roecker, *Tank 103-A Integrity Evaluation*, Rockwell Hanford Operations, Richland, Washington

(k) Dunford, G. L., July 8, 1988, Internal Memorandum to R. K. Welty, *Engineering Investigation: Interstitial Liquid Level Decrease in Tank 241-SX-104*, 13331-88-416, Westinghouse Hanford Company, Richland, Washington

(l) WHC, 1992a, *Tank 241-SX-108 Leak Assessment*, WHC-MR-0300, Westinghouse Hanford Company, Richland, Washington

(m) WHC, 1992b, *Tank 241-SX-109 Leak Assessment*, WHC-MR-0301, Westinghouse Hanford Company, Richland, Washington

(n) WHC, 1992c, *Tank 241-SX-115 Leak Assessment*, WHC-MR-0302, Westinghouse Hanford Company, Richland, Washington

(o) WHC, 1992d, Occurrence Report, *Apparent Decrease in Liquid Level in Single Shell Underground Storage Tank 241-T-101, Leak Suspected; Investigation Continuing*, RL-WHC-TANKFARM-1992-0073, Westinghouse Hanford Company, Richland, Washington

(p) WHC,1990b, *A History of the 200 Area Tank Farms*, WHC-MR-0132, Westinghouse Hanford Company, Richland, Washington

(q) WHC, 1993, *Assessment of Unsaturated Zone Radionuclide Contamination Around Single-Shell Tanks 241-C-105 and 241-C-106, WHC-SD-EN-TI-185,* REV OA, Westinghouse Hanford Company, Richland, Washington

Table 4-3 References:

(r) WHC, 1994, Occurrence Report, *Apparent Liquid Level Decrease in Single Shell Underground Storage Tank 241-T-111; Declared an Assumed Re-Leaker*, RL-WHC-TANKFARM-1994-0009, Westinghouse Hanford Company, Richland, Washington

(s) HNF, 1998, Agnew, S. F., and R. A. Corbin, August 1998, *Analysis of SX Farm Leak Histories - Historical Leak Model* (HLM), HNF-3233, Rev. 0, Los Alamos National Laboratory, Los Alamos, New Mexico

# 5.0 MISCELLANEOUS UNDERGROUND STORAGE TANKS AND SPECIAL SURVEILLANCE FACILITIES

Table 5-1. East and West Area Miscellaneous Underground Storage Tanks and Special Surveillance Facilities (1).

| Facility | Location | Receives Waste From: | Waste (Gallons) | Monitored By: | Remarks |
|---|---|---|---|---|---|
| **EAST AREA** | | | | | |
| 204-AR | W of A Farm Complex | Liquid waste from 100-Area, 300-Area Rail and Truck Tankers | Unknown | NM | Out of service (9) |
| 209-E-TK-111 | 209 E Bldg. | Decon Catch Tank | Unknown | NM | Removed from service 1988 |
| 241-A-302-A | A Farm | A-151 DB | 661 | SACS/ENRAF/TMACS | |
| 241-A-302-B | A Farm | A-152 DB | 6265 | SACS/MT | Isolated 1985, Project B-138, Interim Stabilized 1990, rain intrusion |
| 241-AX-151 (5 tanks) | N. of PUREX | PUREX | Unknown | NM | Isolated 1985 (8) |
| 241-AX-152 | AX Farm | AX-152 DB | 26 | SACS/MT | Declared Assumed Leaker, pumped to AY-102, 3/01, no longer being used |
| 241-AZ-151 | AZ Farm | AZ-702 Condensate | 1399 | SACS/ENRAF/TMACS | Out-of-service 6/05. Isolated 6/06. (M-48-07) |
| 241-AZ-154 | AZ Farm | | 25 | Zip Cord | Not monitored after 05/06 |
| 241-AZ-301 (11) | AZ Farm | AZ-702 Condensate | N/A | SACS/ENRAF/TMACS | Volume changes daily - pumped to AY-101 as needed |
| 241-B-301-B | B Farm | B-151, 152, 153, 252 DB | 22250 | NM | Isolated 1985 (2) |
| 241-B-302-B | B Farm | B-154 DB | 4930 | NM | Isolated 1985 (2) |
| 241-BX-302-A | BX Farm | BR-152, BX-153, BXR-152, BYR-152 DB | 840 | NM | Isolated 1985 (2) |
| 241-BX-302-B | BX Farm | BX-154 DB | 1040 | NM | Isolated 1985 (2) |
| 241-BX-302-C | BX Farm | BX-155 DB | 870 | NM | Isolated 1985 (2) |
| 241-BXR-TK/SMP-001 | BX Farm | Transfer lines | 7200 | NM | Interim Stabilization 1985 (2) |
| 241-BXR-TK/SMP-002 | BX Farm | Transfer Lines | 2180 | NM | Interim Stabilization 1985 (2) |
| 241-BXR-TK/SMP-003 | BX Farm | Transfer Lines | 1810 | NM | Interim Stabilization 1985 (2) |
| 241-BXR-TK/SMP-011 | BX Farm | Transfer Lines | 7100 | NM | Interim Stabilization 1985 (2) |
| 241-BY-ITS2-TK 1 | BY Farm | Vapor condenser | Unknown | NM | Isolated |
| 241-BY-ITS2-TK 2 | BY Farm | Heater Flush Tank | Unknown | NM | Stabilized 1977 |
| 241-C-301-C | C Farm | C-151, 152, 153, 252 DB | 10470 | NM | Isolated 1985 (2) |
| 241-ER-311 | B Plant | ER-151, ER-152 DB | Unknown | SACS/ENRAF/Manual | Declared Assumed Leaker 3/2006 (3) |
| 241-ER-311A | SW of B Plant | ER-151 DB | Empty | NM | Abandoned in place 1954 |
| 244-AR Vault (4 tanks) | A Complex | Between farms and B Plant | Unknown (7) | | Stabilized 8/03, RPP-12051 Tanks 001-004 and Cell 1-3 Sumps monitored quarterly |

Table 5-1. East and West Area Miscellaneous Underground Storage Tanks and Special Surveillance Facilities (1).

| Facility | Location | Receives Waste From: | Waste (Gallons) | Monitored By: | Remarks |
|---|---|---|---|---|---|
| 244-A-TK/SMP | A Complex | DCRT - Receives from several farms | 4670 | -SACS/WTF/MCS | WTF - Receives transfers and is pumped as needed |
| 244-BX-TK/SMP | BX Complex | | 10970 | SACS/MT | Out of Service 6/05. Isolated 6/06 (M-48-07) |
| 241-A-350 | A Farm | Collects drainage | 460 | SACS/WTF/MCS | WTF (uncorrected), pumped as needed |
| 241-A-417 | A Farm | | 1176 | SACS/WTF/Manual | WTF |
| AR-204 | AY Farm | Tanker trucks from various facilities | 290 | SACS/WTF/Manual | |
| CR-003-TK-SMP | C Farm | DCRT | 2146 | SACS/ZIP CORD/Manual | Zip cord installed; MT removed; more accurate conversion table used (10) |
| **WEST AREA** | | | | | |
| 213-W-TK-1 | E. of 213-W Compactor Facility | Water Retention Tank | Unknown | NM | Contains only water |
| 231-W-151-001 | N. of Z Plant | 231-Z Floor drains | Unknown | NM | Inactive, last data 1974 |
| 231-W-151-002 | N. of Z Plant | 231-Z Floor drains | Unknown | NM | Inactive, last data 1974 |
| 240-S-302 | S Plant | 240-S-151-DB | 8016 | | Assumed Leaker, EPDA 85-04 (4) |
| 241-S-302A | S Farm | 241-S-151-DB | 0 | | Assumed Leaker TF-EFS-90-042 |
| | Partially filled with grout 2/91, determined to be an Assumed Leaker after leak test. No surface level or intrusion readings obtainable. S-304 (active) replaced S-302 | | | | |
| 241-S-302B | SX Farm | S Encasements | Empty | NM | Isolated 1985 (2) |
| 241-S-304 | S Farm | S-151 DB | 1 | SACS/ENRAF/Manual | Sump not alarming |
| 241-SX-302 | SX Farm | SX-151 DB, 151 TB | Unknown | NM | Isolated 1987 |
| 241-T-301 | T Farm | DB T-151, 151, 153, 252 | Unknown | NM | Isolated 1985 (T-301-B) |
| 241-TX-302 | TX Farm | TX-153 DB | Unknown | NM | Isolated 1985 (2) |
| 241-TX-302B | E. of TX Farm | TX-155 DB | 3312 | SACS/ENRAF/TMACS | New ENRAF installed 9/02 |
| 241-TX-302-B(R) | E. of TX Farm | TX-155 DB | Unknown | NM | Isolated, replaced TX-302-B |
| 241-TX-302C | T Plant | TX-154 DB | 194 | SACS/ENRAF/TMACS | |
| 241-TX-302-X-B | TX Farm | TX Encasements | Unknown | NM | Isolated 1985 (2) |
| 241-TY-302A | TY Farm | TX-153 DB | Unknown | NM | Isolated 1985 (2) |
| 241-TY-302B | TY Farm | TY Encasements | Empty | NM | Isolated 1985 (2) |
| 241-U-301B | U Farm | U-151, 152, 153, 252 DB | 1438 | SACS/ENRAF/Manual | Pumped to SY-101, 12/03 |
| 241-UX-302A | U Plant | UX-154 | 120 | SACS/ENRAF/Manual | Catch Tank pumped in October 2006 (5) |
| 241-Z-8 | E. of Z Plant | Recuplex waste | Unknown | NM | Isolated, 1974, 1975 |
| 242-S TK C-100 | 242-S | Process Condensate | Unknown | NM | Process condensate receiver during 242-S Evaporator operation |
| 242-T-135 | T Evaporator | T Evaporator | Unknown | NM | Isolated |
| 242-TA-R1 | T Evaporator | Z Plant waste | Unknown | NM | Isolated |
| 243-S-TK-1 | NW of S | Personnel Decon. | Empty | NM | Isolated |

Table 5-1. East and West Area Miscellaneous Underground Storage Tanks and Special Surveillance Facilities (1).

| Facility | Location | Receives Waste From: | Waste (Gallons) | Monitored By: | Remarks |
|---|---|---|---|---|---|
| | Farm | Facility | | | |
| 244-S-TK/SMP | S Farm | From SSTs for transfer to SY-102 | 3955 | SACS/WTF/Manual | WTF. Out of Service 6/05. Isolated 6/06. (TPA M-48-07) |
| 244-TXR-TK/SMP-001 | TX Farm | Transfer lines | Unknown | NM | Interim Stabilized, MT removed 1984 (2) |
| 244-TXR-TK/SMP-002 | TX Farm | Transfer lines | Unknown | NM | Interim Stabilized, MT removed 1984 (2) |
| 244-TXR-TK/SMP-003 | TX Farm | Transfer lines | Unknown | NM | Interim Stabilized, MT removed 1984 (2) |
| 244-TX-TK/SMP | TX Farm | | 7043 | SACS/MT | Received from 241-Z, tank D-5, 11/04 |
| 244-U –TK/SMP | U Farm | - | Unknown | NM | Never placed in service. Isolated 06/30/2006. May contain up to 10,000 gallons leak test raw water. |
| 244-UR-001 Vault TK | U Farm | Tank, Sump and Cell | 4220 | NM | Stabilized 1985 |
| 244-UR-002 Vault TK | U Farm | Tank, Sump and Cell | 1400 | NM | Stabilized 1985 |
| 244-UR-003 Vault TK | U Farm | Tank, Sump and Cell | 5996 | NM | Stabilized 1985 |
| 244-UR-004 Vault TK | U Farm | Tank, Sump and Cell | Empty | NM | Stabilized 1985 |
| 241-EW-151 Vent Station Catch Tank | | Cross Site Transfer Line | 499 | SACS/MT | MT. Rain intrusion, 1/03 (6) |

Table 5-1 Legend:

| | |
|---|---|
| DB, TB | Diversion Box, Transfer Box |
| DCRT | Double-Contained Receiver Tank |
| ENRAF, MT | Surface Level Measurement Devices |
| MCS | Monitor and Control System |
| Manual | Not connected to any automated system |
| MT | Manual Tape |
| NM | Not Monitored |
| O/S | Out of Service |
| SACS | Surveillance Automated Control System |
| TK, SMP | Tank, Sump |
| WTF | Weight Factor (can be recorded as WTF, WTF [uncorrected] or CWF [uncorrected]) |

Table 5-1 Footnotes:

(1) WHC-SD-WM-TI-356, Waste Storage Tank Status and Leak Detection Criteria, Rev. 0, September 30, 1988. Inactive Miscellaneous Underground Storage Tanks (IMUST) reflect only those tanks managed by CH2M HILL Hanford Group, Inc. (CH2M HILL).

(2) WHC-SD-WM-TI-356, Waste Storage Tank Status and Leak Detection Criteria, Rev. 0, September 30, 1988.

Table 5-1 Footnotes:

(3) A leak assessment was performed because of the 0.5 inch liquid level decrease between early October 2005 and January 31, 2006. The leak assessment concluded that a tank leak was the most likely explanation for the level trend. The leak assessment report (RPP-RPT-29163) was issued on March 17, 2006.

Solids volume in the tank is not known. Sample activities conducted during November, 1999 concluded that there were approximately 7 to 9" of solids beneath the east riser and no solids beneath the west riser (HNF-5985 Rev. 0 *ER-311 Flammable Gas Response and Findings*). The remaining liquid in the tank was evaporated to dryness between October 13, 2006 and February 15, 2007. A subsequent video inspection on March 17, 2007 indicated no remaining free liquid was present (07-TOD-026).

(4) A leak assessment was performed because of a steady, predictable liquid level decrease of ~ 0.33 inches/year since the early 1980's. The tank was designated as an "Assumed Leaker" in 1985, but had no record of a formal leak assessment. The leak assessment report (RPP-ASMT-35057) was issued on October 10, 2007.

(5) A leak assessment was performed because of the 0.7 inch level decrease between January 2004 and February 2006. The leak assessment concluded that a tank leak was the most likely explanation for the level trend. The leak assessment report (RPP-RPT-29711) was issued on May 12, 2006.

Pumping of the remaining free liquid from the tank was completed October 25, 2006 (06-TOD-090). An estimated 75 to 110 gallons of sludge, and 10 gallons of free liquid remain in the tank (RPP-RPT-31779 Rev. 0 *241-UX-302A Catch Tank Liquid Mitigation Completion Report*). The high estimate of 120 gallons total waste is reported in the table.

(6) A leak assessment was performed because of a 1.25 inch liquid level decrease between July, 2006 and November, 2006. The leak assessment concluded that the level decrease was the result of evaporation from an operating exhauster connected to tank 241-ER-311. This was confirmed when the exhauster was shut down and the liquid level stabilized. The tank remains classified as a "sound" tank. The leak assessment report (RPP-ASMT-33741) was issued on June 25, 2007.

(7) Following stabilization, the remaining volume of liquid in the tanks and sumps was estimated to total no more than 659 gallons; the volume of sludge <100 gallons (RPP-12051).

(8) 241-AX-151 consists of four 50 gallon diverter tanks (Tanks D – G) located in individual cells and the ~12,200 gallon capacity 241-AX-151-CT catch tank (stainless steel lined concrete vault and sump referred) receiving drainage from the pump pit and the four cells.

(9) 204-AR Customer Waste Unloading Facility includes a 1,500 gal catch tank enclosed in an stainless steel lined pit and pit sump; combined capacity of the catch tank and pit are 4,550 gallons (WHC-SC-WM-SAR-040 Rev. 1).

(10) 244-CR Vault contains two 40,000 gallon tanks CR-011 and CR-01, and two 15,000 gallon tanks CR-002 and CR-003 in individual cells. A 2004 liquid level assessment reported that 244-CR contained a total of 17,400 gallons of waste in the tanks and cells (04-TOD-085). Table 5-1 reports the liquid volume in tank CR-003 used previously as a saltwell receiver.

(11) AZ-301 is an active part of the DST system.

# APPENDIX A - TANK CONFIGURATION AND FACILITIES CHARTS

Figure A-1. Underground Waste Storage Tank Configurations

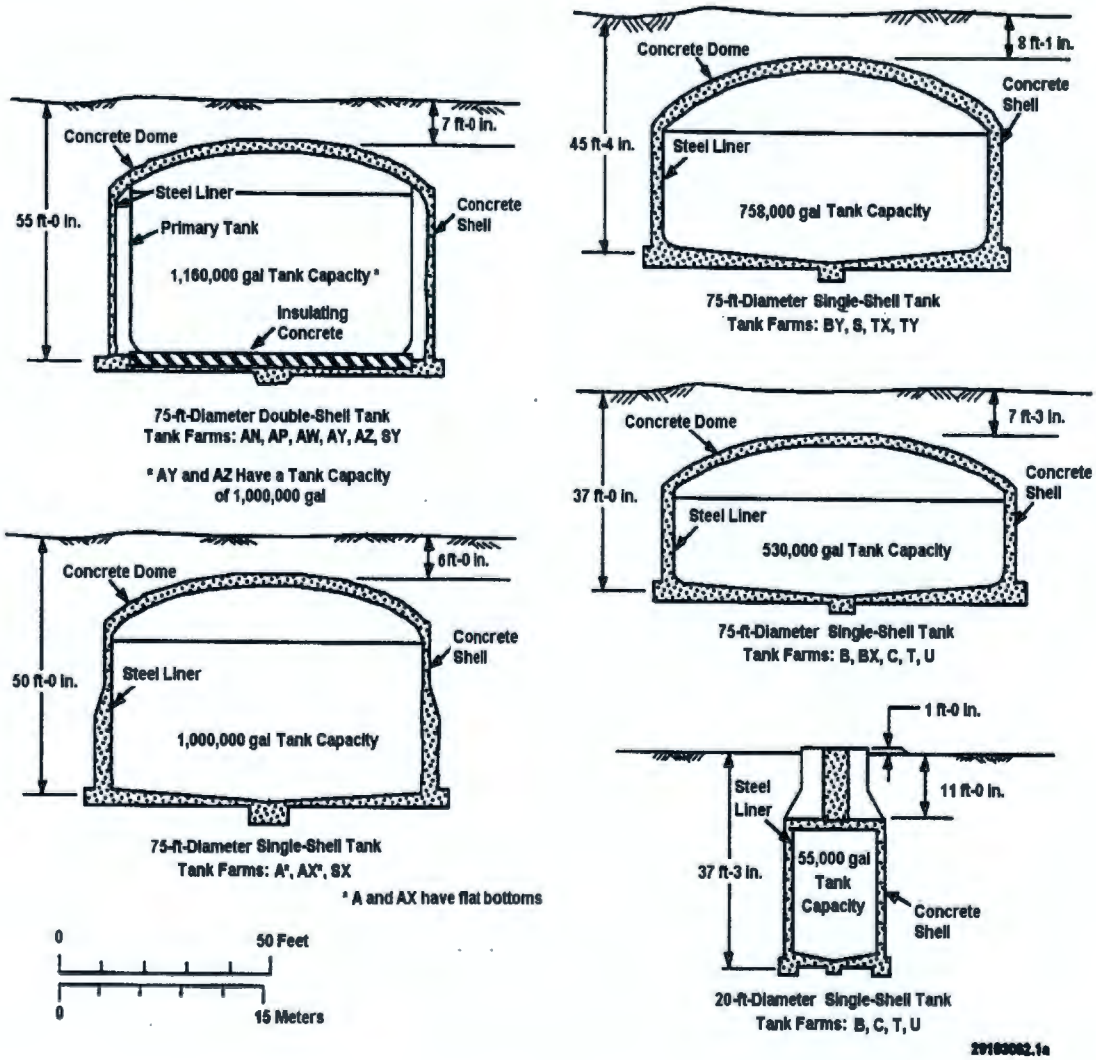


Figure A-2. Double-Shell Tank Instrumentation Configuration

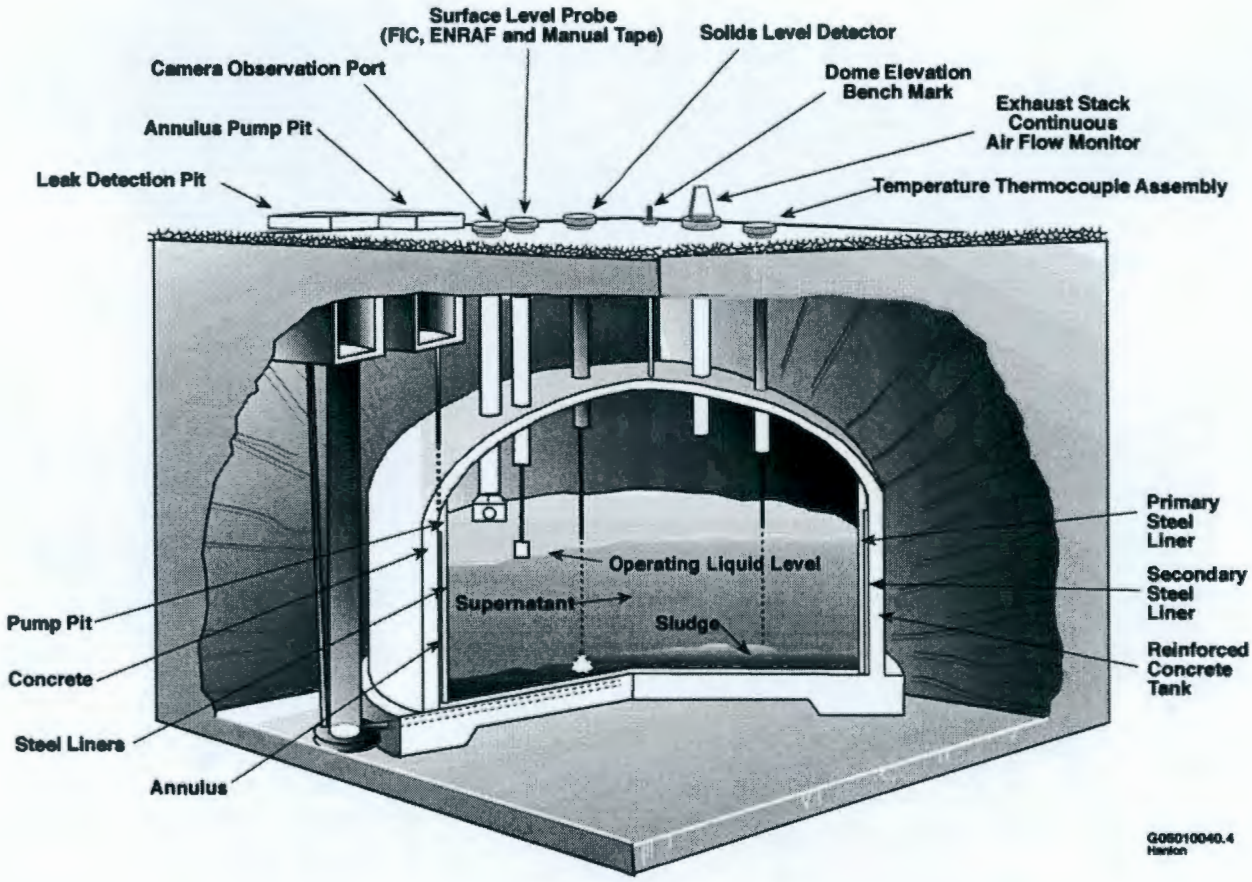
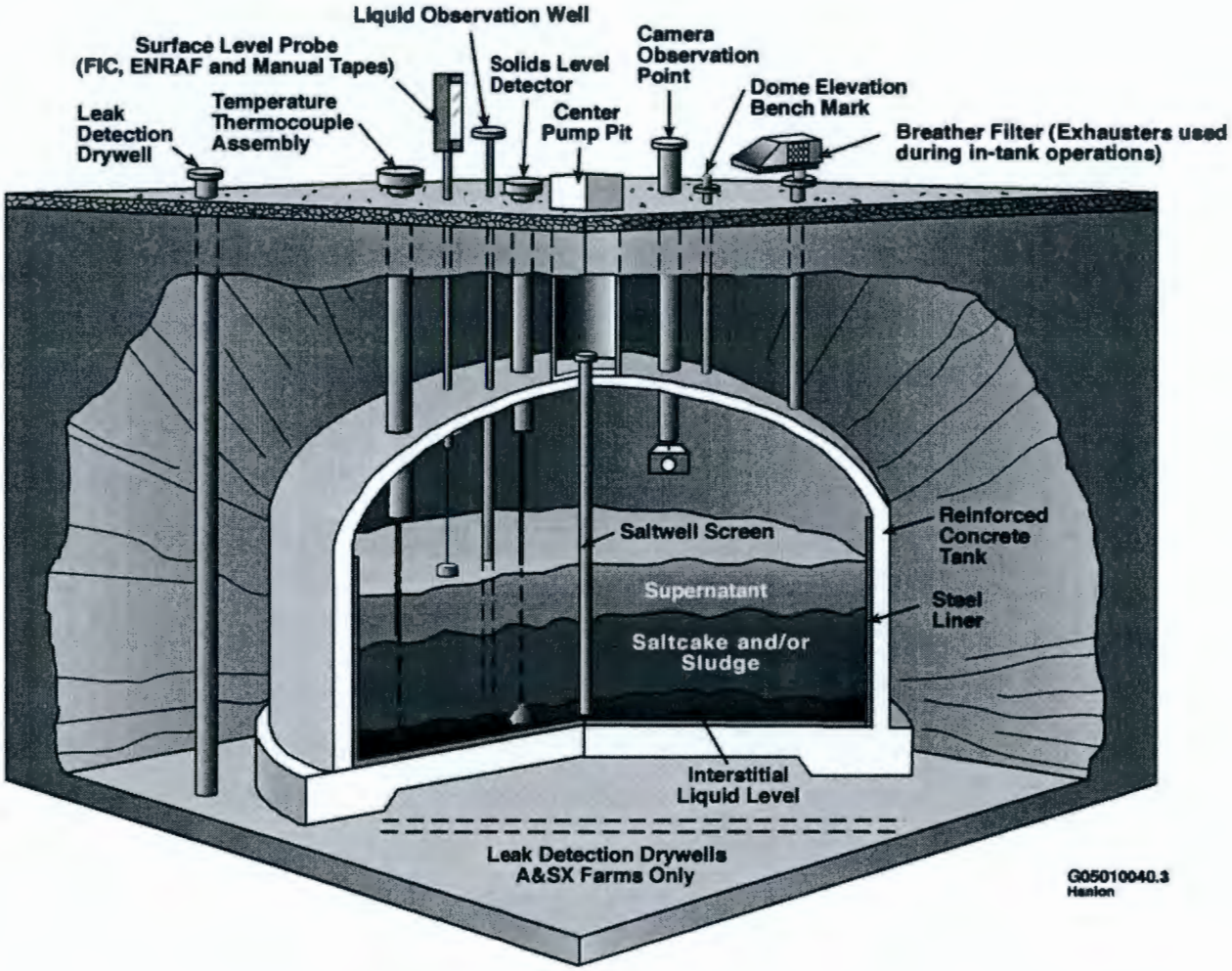


Figure A-3. Single-Shell Tank Instrumentation Configuration



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