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Meeting Minutes Transmittal/Approval  
Project Manager's Meeting: TWRS Single and Double Shell Tank Milestones  
2704HV/Room G206  
200 East Area, Hanford Site, Richland, Washington

July 24, 1996

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Approval: *[Signature]* FOR  
Suzanne Dahl, TWRS Program Manager  
Washington State Department Of Ecology

Date: 10-31-96

Approval: *Carolyn C Haass*  
Carolyn Haass, TWRS TPA Program Manager  
U.S. Department of Energy, Richland Operations Office

Date: 10-31-96

Approval: *Lynne Roeder-Smith*  
Lynne Roeder-Smith, Coordinator  
Jason Associates Corporation

Date: Oct. 31, 96

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Meeting Minutes are attached. Minutes are comprised of the following:

Attachment 1 - Agenda

Attachment 2 - Attendance and Meeting Minutes Summary/Action Items

Handout 1: Presentation Package

Handout 2: Ecology Statement regarding Memorandum of Agreement for M-44-02B

Handout 3: Memorandum of Agreement for M-44-02B



**AGENDA**  
**TWRS TPA PROJECT MANAGER'S MEETING**

Wednesday, July 24 , 1996  
 2704HV/G206/200E

Begin Time	End Time	Subject	Presenter
10:00	10:15	Welcome/Introductions/Agenda	CC Haass BG Erlandson
10:15	10:40	M-40, Safety Issue Resolution	JC Peschong
10:40	11:10	M-41, Interim Stabilization	JM Clark
11:10	11:30	M-43-01, Project W-030, Tank Farm Ventilation Upgrade	C Pacheco
11:30	11:45	M-43-07, Project W-058, Replacement Cross Site Transfer Line	BJ Harp
11:45	12:00	M-43-09-16, Project W-314, Tank Farm Upgrades	MJ Royack
12:00	12:15	BREAK*	*****
12:15	1:00	M-44, Characterization	JF Thompson
1:00	1:15	M-45, SST Waste Retrieval & Closure	WR Wrzesinski
1:15	1:30	M-46-00, DST Space Evaluation	ML Ramsay
1:30	2:00	Post Presentation Re-cap, Meeting Minute Summary, and Establish Tentative Schedule for Next Meeting	CC Haass LE Borneman

\*Break at noon to get lunch; return to conference room and resume work.

**Attendance:**

Lucinda Borneman, WHC  
Laura Cusack, Ecology  
Norm Hepner, Ecology  
Suzanne Dahl, Ecology  
Scott McKinney, Ecology  
Alex Stone, Ecology  
Carolyn Haass, DOE  
Russ Brown, WHC  
Lynne Roeder-Smith, Jason  
Brad Erlandson, WHC  
Bob Cash, WHC  
Jon Peschong, DOE  
Mary Ann McLaughlin, WHC  
Ron Nelson, WHC  
Carolina (Lina) Pacheco, DOE  
Jerlinda (Linda) Banks, DOE  
Dave Nylander, GSSC  
Octavio DoValle, WHC  
Alisa Huckaby, Ecology  
Tom Kelley, WHC  
John Kristofski, WHC  
Mike Payne, WHC  
Wendell Wrzesinski, DOE  
Gary Meyer, WHC  
Marc Stevenson, WHC

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**INTRODUCTION - CAROLYN HAASS, DOE-RL**

Requested feedback from Ecology on proposal to hold meetings every other month to discuss regulatory/compliance issues (non-TPA issues). A. Stone emphasized the need to hold two consecutive PMM meetings first, then would agree to this.

S. McKinney said it sounded good and N. Hepner seconded it. S. Dahl suggested having the PMM prior to the Quarterly IAMIT meeting instead of after. This was noted and agreed to (when a PMM coincides with an IAMIT meeting). L. Cusack requested to have DST, Permits, and Integrity Assessments covered at the next meeting. S. McKinney also requested to have vadose zone staff in attendance at the next meeting. C. Haass explained that for the next meeting, DOE would send out a cemail requesting the participants input and would base the agenda on any input received. **ACTION:** Today's meeting minutes will be ready for distribution within 14 days.

**M-40-00 - SAFETY ISSUE RESOLUTION - JON PESHONG, DOE-RL**

A. Stone explained an agreement that was made between himself and Mary Jarvis regarding review and approval of various USQs. Jon Peshong requested documentation of this agreement. A. Stone said it was recorded in meeting minutes from a project review meeting approximately two months ago, and stated that Ecology would review previous USQ closure and provide concurrence for interim M-40-09 milestones. This subject was tabled with the intent that Ecology will hold discussions with their management regarding review and approval of the USQs and that Jon Peshong will discuss the above-mentioned agreement with Mary Jarvis.

**ACTION:** Ensure that Ecology is on distribution to receive Ferrocyamide Report WHC-SD-WM-SARR-038, Rev. 1, which was transmitted to HQ for review and approval on July 3, 1996.

Question: How many tanks has flammable gas questions been applied to? Answer: 25 and 32.

A. Stone requested copies of the documentation that removes Watchlist tanks from the Watchlist. M. McLaughlin explained that documentation closing USQs was provided to Ecology when the Milestones were met. Dates can be provided from the TPAI office on request.

**ACTION:** Provide status of M-40-07, Vapor treatment system on tank C-103 to A. Stone.

**M-41-00 - INTERIM STABILIZATION - JOHN CLARK, DOE-RL**

Question: N. Hepner asked what the additional pumping costs were estimated at. J. Clark said the exhauster was around one million dollars, but they were hoping to get it down to around 400K, and that on average throughout the whole tank farm, the entire package was around 500K per tank. Extra funding has been spent on accelerating other tank projects.

TWRS is forecasting to enter into a revised TPA milestone on September 9, 1996, at which time a concurrence package will be submitted to Mike Wilson of Ecology. The draft package will be submitted

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to DOE-RL from WHC on August 20, 1996. S. McKinney asked what impact the tentative change package would have on the budget. J. Clark said the Recovery Plan would need to be re-evaluated to determine budget impacts.

S. McKinney asked if there were any remaining concerns with technical safety issues on scope of work. J. Clark said there were mainly time constraints due to the use of checklists for reducing safety concerns.

#### **M-43-09, Project W-314 - TANK FARM UPGRADES - GIL RAMIN, DOE-RL**

TWRS is expecting a decision out of Headquarters regarding Outyear Funding by October 1, 1996. No work can be done without project validation from HQ. RL will be sending the Cost Profile to HQ by the end of the month, at which time they establish a review schedule for issuance of a key decision. The scope and schedule of Project W-314 supports privatization and uses Capital Funding.

#### **M-43-01, Project W-030 - TANK FARM VENTILATION UPGRADE - CAROLINA PACHECO, DOE-RL**

An RL request to Congress to transfer 3.5 million dollars of internal TWRS funding (from Projects 151, 211, and 058 - Toby Michelena has documentation) to Project W-030 is currently undergoing RL review. RL needs HQ approval by August 15 to maintain the current schedule. The 3.5 million would be for the next fiscal year to complete the project. 2.8 million would be allocated for project tie-ins and startup. The remaining funds would support other line-item activities and flammable gas issues.

Safety Documentation is approximately 10 days behind schedule, although it is still on schedule for a forty-day Tier II review at INEL.

There is a possibility of schedule slippage due to overlap of ORRs throughout the TWRS program.

#### **M-43-07, Project W-058 - REPLACEMENT CROSS SITE TRANSFER LINE - LINDA BANKS, DOE-RL**

Although the current schedule shows a slip due to dedicated personnel working on other projects (030, 320, and 151), it will not impact the TPA major milestones.

A slight variance was shown on Capital Performance due to the number of expansion loops performed. Since this number is decreasing, the variance will recover.

N. Hepner requested the outcome of the occurrence report on contamination found outside the containment area. It was reported the contamination was found on new pipes in the lay-down area; those pipes have since been moved.

**M-44-00 - CHARACTERIZATION - JIM THOMPSON, DOE-RL**

It was clarified that in the table showing May/June 1996 Samples Taken, Rotary Samples are actually push, using a rotary truck.

Regarding the table showing TCR status, 5 more Final TCR have since been mailed to Ecology (in the July 18,19 timeframe) and 5 more are going through RL concurrence this week.

ISSUES: TWAP and TCR (ref MOU) and the following written statement submitted by Ecology: "Attached is a Memorandum of Agreement signed by DOE-RL and Ecology Characterization Project mnagers as part of dispute resolution for M-44-02b. Failure of DOE to meet the requirements outlined in this agreement leads to the following ramifications:

- 1) DOE-RL will have failed to meet its agreements for resolution of the M-44-02b dispute as agreed upon in the IAMIT meeting.
- 2) Will lead to rejection of TPA M-44-02 documents for FY '96.

Ecology formally notifies DOE-RL that failure to commit to the conditions of this agreement places M-44 in jeopardy. Ecology will review and pursue options under the TA appropriate to this issue." See Attachment submitted by A. Stone, Ecology.

Ecology asked how many TCRs would be submitted in FY '96. RL responded that a letter was sent to Ecology on that subject and the range was 32-40, but that they are working toward 40. A. Stone then responded that DOE was given success measures for FY '96, and that submittal of the 40 TCRs was one of those measures. Per Ecology, if DOE does not meet that measure and TPA M-44 requirements, DOE will have failed to meet the measure and Ecology will pursue action.

Ecology asked what the FY '97 budget expectation from DOE was. J. Thompson said it was 61.7 million dollars out of Capital and Expense funding, a 30-33% reduction from FY '96. Ecology reiterated the 40 TCR requirement for FY '97 in the TPA and their expectation for DOE funding to support the Characterization program in fulfilling the TPA milestone.

**ACTION:**Ecology rejected the TWAP - A. Stone and J. Thompson will meet to discuss FY '97, M-44-02C.

Ecology requested data in reference to the ferrocyanide issue. S. McKinney asked DOE to quantify what "significant" was in relation to "steady state combined gas concentration significantly below LFL", and was told it meant a range of 0-1 percent.

**M-45-00 - SST WASTE RETRIEVAL AND CLOSURE - WENDELL WRZESINSKI, DOE-RL**

There will be a meeting next week with Bill Taylor and the Immobilization program staff to discuss

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issues related to SST retrieval sequence (M-45-02A). DOE can provide a briefing to Ecology on the report, if desired. There are operational and construction concerns related to C-106 sluicing retrieval, but it is still on schedule to meet the Secretarial milestone.

A copy of the June MRM for C-106 Retrieval Program was submitted to S. McKinney. A copy will also be available in the TWRS Single Shell Tank Administrative Record.

A courtesy copy of Strategy Document for Leak Detection of SSTs During Retrieval (WHC-SD-WM-ES-378, Rev. 1) was submitted to S. McKinney. A copy will also be available in the TWRS Single Shell Tank Administrative Record.

SST Closure Work Plan is in the mail to Ecology.

**ACTION:** Ecology and DOE technical staff will meet to discuss HTI implications and heel removal in regards to the scope of ISSTRS.

#### **M-46-00 - MARK RAMSAY**

**ACTION:** For next month's TWRS TPA Project Manager's meeting, provide Ecology with a timeline for recommendations/actions taken in response to the Waste Consolidation Studies.

**ACTION:** Provide Ecology with the Assumptions used for the OWVP report.

#### **COMMENTS:**

Next meeting is tentatively scheduled for Wednesday, August 28th. Carolyn Haass will send out a ccmail announcing the meeting and requesting agenda input.

Meeting adjourned.

## MEMORANDUM OF AGREEMENT

1. **PURPOSE.** The purpose of this document is to record the agreements reached between the U.S. Department of Energy, Richland Operations (DOE-RL) and the Washington State Department of Ecology (Ecology) to resolve the dispute concerning the Hanford Federal Facility Agreement and Consent Order, Tri-Party Agreement (TPA), Milestones M-44-02B. The agreements documented herein terminate the subject dispute M-44-02B and provide a process to fulfill all future M-44-02 requirements.

This agreement is intended to better clarify the requirements of M-44 and it does not replace or abrogate any of the features of the current M-44 requirements

2. **BACKGROUND.** On September 29, 1995, Ecology rejected the FY-96 Tank Waste Analysis Plan (TWAP) and the TWAP's associated Tank Characterization Plans (TCP). The TWAP and TCPs were submitted by TWRS to meet the requirements of TPA Milestone M-44-02B. Ecology's rejection of the FY-96 planning documents was based upon Ecology's concerns that:

a. The Data Quality Objectives (DQO), which govern tank waste sampling, analysis, and reporting were incomplete or inadequate.

b. Ecology had not been involved in developing the DQOs, nor had Ecology concurred with the technical content of the DQOs.

c. As documented in the FY-96 TWAP, the Tank Characterization Reports (TCR) scheduled to be completed to meet TPA Milestone M-44-09, would not contain sufficient data to warrant publication of the reports.

3. **AGREEMENT.** To resolve the dispute that resulted from Ecology's rejection of the above referenced documents, and to clarify roles, responsibilities and expectations regarding future submittals, DOE-RL and Ecology have come to the following agreements:

3.1 TWRS RELATED DATA QUALITY OBJECTIVES.

Ecology and DOE-RL both agree to invest the resources necessary to actively participate in revising and/or determining the DQO requirements for the TWRS program. DOE-RL and Ecology commit to revise or to otherwise resolve Ecology's concerns with the DQOs, listed in Table 1, by September 30, 1996. Both Ecology and DOE-RL will concur on these DQOs.

TABLE 1

COMPATIBILITY	FLAMMABLE GAS
ORGANICS	VAPOR SCREENING
PRIVATIZATION	HISTORICAL
FERROCYANIDE	EVAPORATOR
RETRIEVAL	SAFETY SCREENING

3.2 **DQO CHANGE CONTROL.** DQOs are living documents and will require updating as sampling results are analyzed and new priorities are established.

DOE-RL agrees to develop a DQO change control procedure that will require DOE-RL and Ecology concurrence on changes in the DQOs. The DOE-RL and Ecology concurrence page is shown as Enclosure 1.

3.3 **TWRS TANK WASTE CHARACTERIZATION PROGRAMMATIC AND PLANNING APPROACH.** The following agreements relate to the Tank Waste Characterization Basis and its use in Characterization Project planning.

3.3.1 **BASIS DOCUMENT.** Ecology agrees in principle with the Characterization programmatic and planning approach presented in the Tank Waste Characterization Basis, document control number WHC-SD-WM-TA-164, Revision 1. However, Ecology has identified areas requiring modification to this revision of the technical basis document. Specifically, Ecology must be involved in establishing the priority of tank waste information needs, and Ecology involvement in the determination of the final tank priority ranking. These issues will be resolved in the next revision to the document.

3.3.2 **REVISIONS TO BASIS DOCUMENT.** DOE-RL agrees to delete Chapter 8, Apply Operational Controls, from the technical basis document. As sampling results are analyzed and new priorities are established, revisions to the technical basis document may be required. Therefore, DOE-RL and Ecology will actively participate in future revisions to the technical basis.

3.4 **ACCEPTABLE TANK WASTE ANALYSIS PLANS.**

3.4.1 **TANK WASTE ANALYSIS PLAN DEVELOPMENT.** In addition to the requirements contained in the Hanford Federal Facility Agreement and Consent Order, Tri-Party Agreement (TPA), Milestone M-44, Ecology and DOE-RL agree that the Tank Waste Characterization Basis, document control number WHC-SD-WM-TA-164, shall be used by DOE-RL and Ecology to assist in developing future Tank Waste Analysis Plans. Specifically, the waste tank information need priority list will be used as the primary technical information source to construct the sampling schedule for each fiscal year. The waste tank information need priority list will not be the only deciding factor used in developing the sampling schedule. Additional factors that will be used in developing the TWAPs and sampling schedules are:

sampling and analytical laboratory resources, program funding, safety and operational constraints. The primary objective of using the waste tank information need priority ranking is to focus the Characterization Project's sampling and analysis work to meet the needs of the data users and the objectives of the TWRS mission.

3.4.2 **TANK WASTE ANALYSIS PLAN REVIEW AND APPROVAL.** In accordance with the requirements contained in the Hanford Federal Facility Agreement and Consent Order, DOE-RL will provide the draft TWAPs to Ecology no later than May 31 of each year. The final submission of the TWAPs to Ecology by DOE-RL occurs no later than August 31 of each year. This three month time frame, draft to final submittal, was incorporated into the TPA to allow for Ecology and DOE-RL to resolve any differences. Therefore, to ensure that this time is used effectively to address Ecology's concerns and meet DOE-RL programmatic requirements, Ecology agrees to provide DOE-RL written comments on the draft TWAP submittal within 45 days after receipt of the document. Furthermore, once agreement between Ecology and DOE-RL has been reached on the draft TWAP, Ecology agrees to provide no substantive additional changes on the final TWAP submittal by DOE-RL.

3.4.3 **TANK WASTE ANALYSIS PLAN SCHEDULE CHANGES.** In accordance with Section 9.3, Document Revisions, of the TPA, should circumstances cause an unrecoverable change in either the data content of the projected TCRs or in the TCRs selected for submittal as defined in the TWAP, DOE must provide a justification for its decision and Ecology must concur with the changes before implementation. The primary objective of this agreement is not to involve Ecology in daily operations or daily schedule changes, but to inform and obtain Ecology concurrence on changes which affect the quality, quantity and selection of TCRs to be delivered under TPA Milestone M-44.

3.5 **ACCEPTABLE TANK CHARACTERIZATION REPORT.** Ecology and DOE-RL both agree with the following definition for the acceptability of a TCR.

To be acceptable to both DOE-RL and Ecology a TCR shall:

- a. Contain the information required in the Hanford Federal Facility Agreement and Consent Order, Tri-Party Agreement (TPA), Milestone M-44, "historical process knowledge, prior characterization data, and validated empirical data acquired after May 1989." Historical process knowledge used to produce historical content tank estimates or other data based on modeling results are insufficient justification for the production of a TCR until the models have been verified by comparison with sampling data and Ecology and DOE have agreed upon the appropriate use of the data. Until such agreement has been reached, no TCR is acceptable without sampling results

results as required by the TWAP.

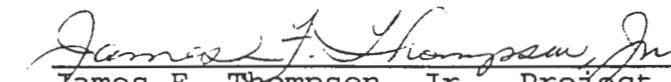
b. Contain the analysis resulting from tank waste sampling and analysis event(s). The sampling and analysis event will be designed to meet the information requirements of the TWAP.

c. Acceptability of TCRs containing incomplete sampling events shall be resolved on an individual basis between DOE-RL and Ecology. This exception to the definition is included to allow for the publication of valuable, yet incomplete, information.

d. Once DOE-RL and Ecology concur on the DQOs at the end of Fiscal Year (FY) 1996, any subsequent sampling will be directed by the DQO or DQO revision in effect 45 days prior to the sampling event.

3.6 **SAMPLING EVENTS OCCURRING IN FY 1996.** DOE-RL and Ecology recognize that sampling will continue concurrent with DQO revisions through FY 1996. These concurrent efforts may affect TPA milestone M-44-10. DOE-RL and Ecology concerns will be resolved in the TWAP for FY 1997 Milestone M-44-02C.

3.7 **MILESTONE M-44-02B ACCEPTANCE.** Ecology accepts the Tank Waste Analysis Plan (TWAP) and the associated 65 Tank Characterization Plans (TCP) which cover DOE-RL sampling and analysis efforts for fiscal year 1996. However, the TWAP must be revised to reflect programmatic changes. Therefore, DOE-RL shall submit to Ecology a revision to the TWAP no later than April 5, 1996. Ecology and DOE-RL agree to resolve any issues and concur on this revision no later than April 15, 1996.

  
 James F. Thompson, Jr. Project Manager,  
 Technical Basis and Reports and Sample Analyses  
 U. S. Department of Energy, Richland Operations

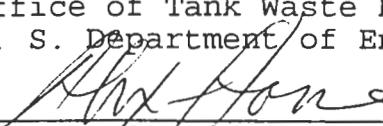
3-7-96  
 Date

\_\_\_\_\_  
 James K. McClusky, Director Waste Storage Division  
 U. S. Department of Energy, Richland Operations

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Jackson E. Kinzer, Assistant Manager  
 Office of Tank Waste Remediation  
 U. S. Department of Energy, Richland Operations Office

\_\_\_\_\_  
 Date

  
 Alex B. Stone, Characterization Program Manager,  
 Tank Waste Remediation System  
 Washington State Department of Ecology

3-7-96  
 Date

Attached is a Memorandum of Agreement signed by DOE-RL and Ecology Characterization Project Mgrs as part of dispute resolution for M-44-02b. Failure of DOE to meet the requirements outlined in this agreement leads to the following ramifications:

- 1) DOE-RL will have failed to meet its agreements for resolution of the M-44-02b dispute as agreed upon in the IAMIT mtg.
- 2) Will lead to ~~rejection~~ rejection of TPA M-4402 documents for FY 96.

Ecology formally notifies DOE-RL that failure to commit to the conditions of ~~the~~ this agreement places M-44 in jeopardy. Ecology will review and pursue options under the TPA appropriate to this issue.

**Project Manager's Meeting: TWRS Single and Double Shell Tanks  
TPA Milestones M-40, M-41, M-43, M-44, M-45, M-46  
July 24, 1996**

U.S. Department of Energy -  
Richland Operations Office

J.M. Clark	S7-54
C.C. Haass	S7-51
B.J. Harp	S7-54
D.E. Jackson	A5-15
J.M. McClusky	S7-54
C. Pacheco	S7-54
J.C. Peschong	S7-54
M.L. Ramsay	S7-52
M.J. Royack	S7-54
G.F. Sanders	A5-15
C. Sohn	S7-51
W.J. Taylor	K6-51
J.F. Thompson	S7-54
W.R. Wrzesinski	S7-53

Washington State Department of Ecology

L.J. Cusack	B5-18
S.L. Dahl	B5-18
N.T. Hepner	B5-18
S. McKinney	Lacey Office
A.B. Stone	B5-18

Fluor Daniel Hanford Corporation

L.D. Arnold	B2-35
M.A. McLaughlin	B2-35
D.J. Washenfelter	H5-27*

Lockheed Martin Hanford Corporation

W.B. Barton	R2-11*
R.J. Cash	S7-14*
B.G. Erlandson	R2-36
L.F. Ermold	S7-84*
G.A. Meyer	S2-48*
V.L. Wagner	R1-90
J.H. Wicks	R2-50*

Rust Federal Services of Hanford, Inc.

J.E. Geary	S5-07*
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Jason Associates Corporation

L.R. Roeder-Smith	H0-51
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**ADMINISTRATIVE RECORD:**

Double Shell Tanks S-2-3  
Single Shell Tanks S-2-4  
Tank Waste Remediation System  
TPA Milestones M-40, M-41, M-42, M-43,  
M-44, M-45 [Care of EDMC, RFSH  
(H6-08)]

**Washington State Department of Ecology**

Nuclear and Mixed Waste Hanford Files  
P.O. Box 47600, Olympia, WA 98504-7600

**Environmental Protection Agency**

Region 10, Seattle, WA 98101  
Mailstop HW-070 (Records Center)

\* Received meeting minutes text only.  
Distribution by cc:Mail

**MILESTONE M-40-00**

**SAFETY ISSUE RESOLUTION**

**J. Peschong**

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# Introduction

- **M-40-00 "Mitigate/Resolve Tank Safety Issues for High Priority Watch List Tanks" (September 2001)**
- **Includes Flammable Gas (FG), Ferrocyanide, Organic, and High-Heat**
- **M-40-09 - Close all USQs (September 1998)**
- **M-40-10 - Complete Vapor Space Monitoring for all FG tanks (January 1997)**
- **M-40-12 - Resolve Criticality Safety Issue (September 1999)**

# Roles and Responsibilities

- **Temporary Lead - Jon Peschong/Robert Cash**
- **Flammable Gas - John Gray/Jerry Johnson**
- **Ferrocyanide - Wally Hendrickson/Robert Cash**
- **Organic - Dennis Irby/Joe Meacham**
- **High Heat - Russ Harwood/Gary Dukelow**

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**Placeholder for table on interim milestones (3 pages) ?**

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# Issues

## M-40-10

- **Standard Hydrogen Monitoring Systems (SHMS) are installed on initial 25 FG Watch List tanks**
- **Uncertain total number of SHMS**

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# **MILESTONE M-41-00**

## **COMPLETE SINGLE-SHELL TANK INTERIM STABILIZATION**

**J. Clark**

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# Program Responsibilities

- **As a prerequisite to Control, Clean and Stable (CC&S)**
  - **Complete interim stabilization of 149 single-shell tanks by September 30, 2000.**
  - **Complete intrusion prevention of 149 single-shell tanks by September 30, 2000.**

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# History

- **Thirty-three tanks remain to be interim stabilized**
  - Flammable gas issues caused a Worker Health and Safety concern. This caused a shut-down of pumping activities and an on-going evaluation of flammable gases for all UGS tanks.
  - A Safety Assessment has been developed to allow safe restart of pumping activities.
  
- **Four tanks passed safety screening**
  - Flammable gas monitors were installed on four tanks, T-107, T-104, S-108, and S-110. They are the only tanks, at this time, authorized to be pumped.
  - T-107 was declared interim stabilized on May 22, 1996.
  - For the past month, pumping efficiencies for T-104, S-108 and S-110 are 89 percent, 88 percent, and 82 percent, respectively.

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# History (cont)

- **Forty-six tanks remain for intrusion prevention activities**

- Five tanks in C-Farm (C-102, C-105, C-107, C-110, and C-112) are being completed.
- Five tanks in BX-Farm (BX-107, BX-109, BX-110, BX-111, and BX-112) are being completed.

- **CC&S activities are supported**

- TY-Farm, first farm to be transformed to CC&S.
- TX-Farm and BX-Farm are on schedule to be in CC&S state on September 30, 1996.
- Abandoned equipment is being removed from S, SX and BY-Farms.

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# Status

## TWRS FY 1996 External Commitments

### Interim Stabilization

TYPE	Milestone	Title	Due Date	Status
TPA	M-41-01-T-02	Complete interim stabilization of 5 single-shell tanks	11/30/95	F 09/10/96
TPA	M-41-09	Start interim stabilization of 7 non-watch list tanks in 241-S tank farm	01/31/96	F 09/10/96
TPA	M-41-08	Start interim stabilization of 1 non-watch list tank in 241-U tank farm	08/31/96	F 09/10/96
TPA	M-41-11	Start interim stabilization of 4 flammable gas watch list tanks in 241-U tank farms	08/31/96	F 09/10/96
TPA	M-41-13	Start interim stabilization of 3 organic watch list tanks in 241-U tank farm	08/31/96	F 09/10/96

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# Issues

- **M-41-00 milestone is in dispute resolution due to flammable gas issues. A recovery plan is being developed to modify interim milestones while meeting the end (September 30, 2000) major milestone.**

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**MILESTONE M-43-01  
PROJECT W-030**

**TANK FARM VENTILATION  
UPGRADE**

**C. Pacheco**

# Introduction

**Project W-030 will provide a new primary ventilation and recirculation cooling system for 241-AY and 241-AZ Tank Farms. New ventilation systems are to be installed, tested and turned over to operations by December 31, 1996.**

- **M-43-01C "Begin Operation"**
- **M-43-01 "Project W-030 Tank Farm Ventilation Upgrades"**

# **Roles and Responsibilities**

**Waste Storage Division Director**

**- James McClusky**

**Tank Farm Operation Project Director**

**- Ami Sidpara**

**200 East Transition Project Manager**

**- Michael Royack**

**Project W-030 Construction Project Manager**

**- Carolina Pacheco**

## Tri-Party Agreement Milestones

No.	Title	Due	Status	Remarks
M-43-01-T01	Complete Definitive Design	July 1994	Completed May 1994	Completion of this TPA milestone was documented by RL in a letter to Ecology dated July 15, 1994.
M-43-01A	Start Construction	October 1994	Completed September 1994	Completion of this TPA milestone was documented by RL in a letter to Ecology dated October 18, 1994.
M-43-01B	Complete Construction	October 1996	Completed April 1996	Completion of this TPA milestone was documented by RL in a letter to Ecology dated May 29, 1996
M-43-01C	Begin Operation	December 1996	Forecast December 1996	At Risk due to: 1) Congressional Reprogramming 2) Safety Documentation 3) Multiple ORRs in A-Complex
M-43-01	Complete Project W-030 Tank Farm Ventilation. Upgrades	December 1996	Forecast December 1996	At Risk due to: Same as above

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# ISSUES

**Funding:** **Congressional Reprogramming Action  
Required by 8/15/96, \$3.5M increase to  
Total Project Cost**

**Safety Doc.:** **Review and Approval of Safety  
Documentation longest critical path  
activity to WHC/RL ORRs**

**ORR:** **Performance of multiple A-Complex  
ORRs**

# **MILESTONE M-43-07**

# **CROSS-SITE TRANSFER SYSTEM**

**L. Banks**

9713508.1224

# INTRODUCTION

**Project W-058 will replace the present cross-site transfer system with a buried pipe-in-pipe system, approximately 6 1/2 miles long. This system will be capable of transferring liquid waste in either direction between the Hanford 200 East and 200 West Areas and slurries from the 200 West Area to the 200 East Area.**

**This Project will provide a compliant and reliable transfer system linking 200 East Area and 200 West Area in support of urgent near-term operational needs and the long-term TWRS mission.**

9713508.1225

# Roles and Responsibilities

<b>Waste Storage Division Director -</b>	<b>James McClusky</b>
<b>Tank Farm Operation Project Director -</b>	<b>Ami Sidpara</b>
<b>200 West Transition Project Manager -</b>	<b>John Clark</b>
<b>Project W-030 Construction Project Manager -</b>	<b>Ben Harp</b>

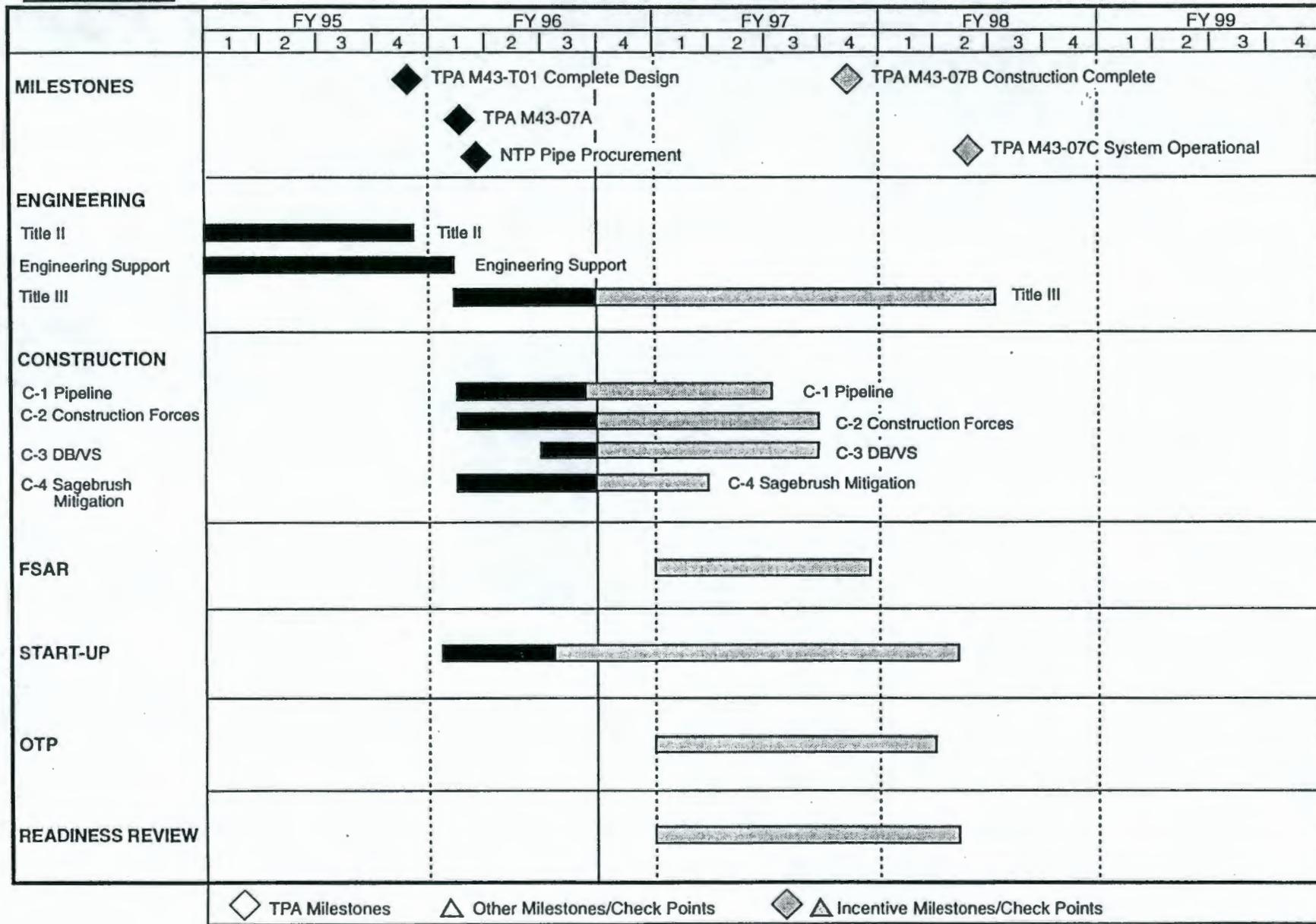
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# MILESTONE DESCRIPTION

- **M-43-07B "CONSTRUCTION COMPLETE"**  
**(8/31/97)**
- **M-43-07 "COMPLETE PROJECT W-058"**  
**(2/28/98)**
- **M-43-07C "SYSTEM OPERATIONAL"**  
**(2/28/08)**



# FY 1996 W-058 REPLACEMENT OF CROSS SITE TRANSFER SYSTEM

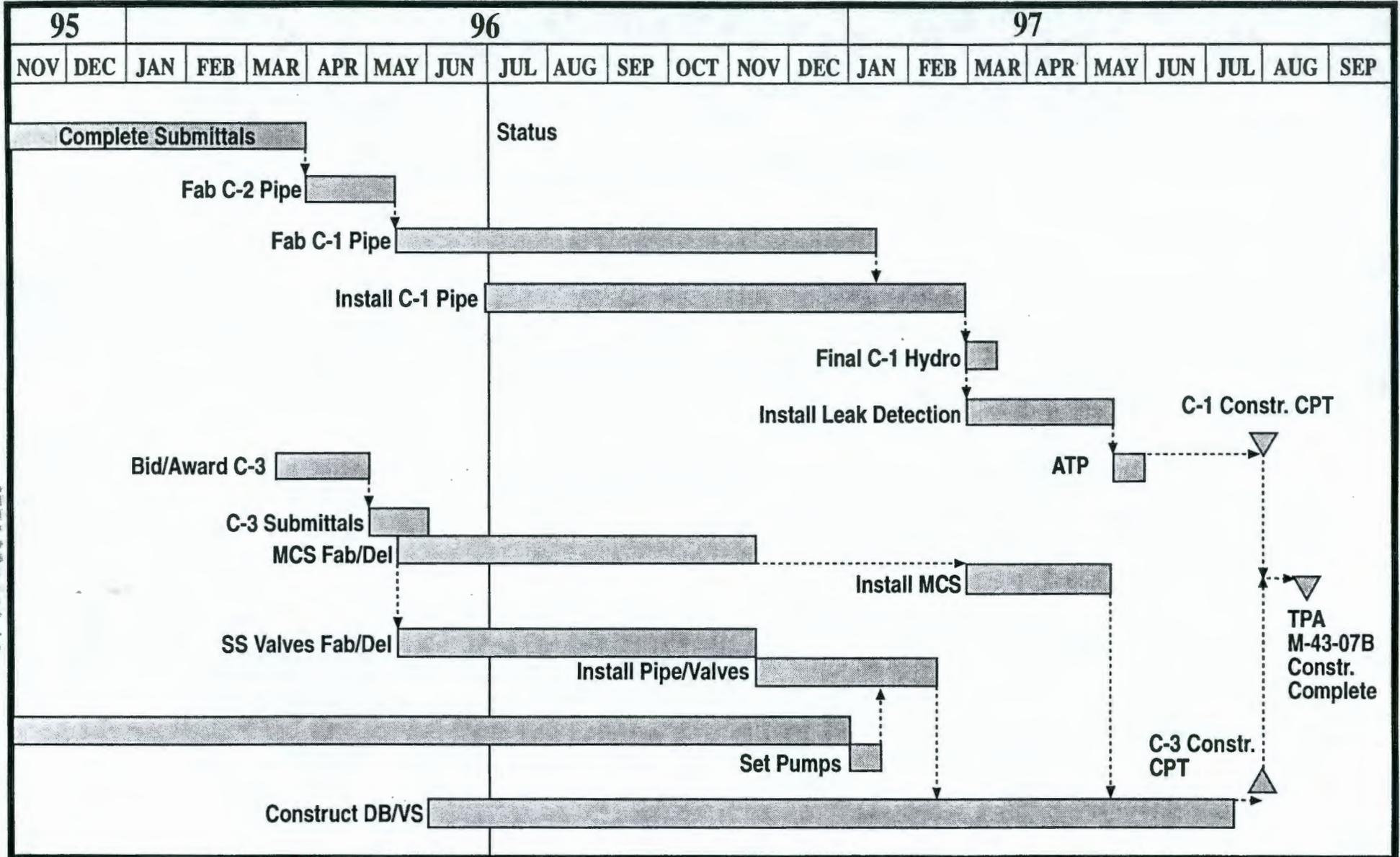


◆ TPA Milestones      △ Other Milestones/Check Points      ◆△ Incentive Milestones/Check Points

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# Project W-058

## Summary Critical Path



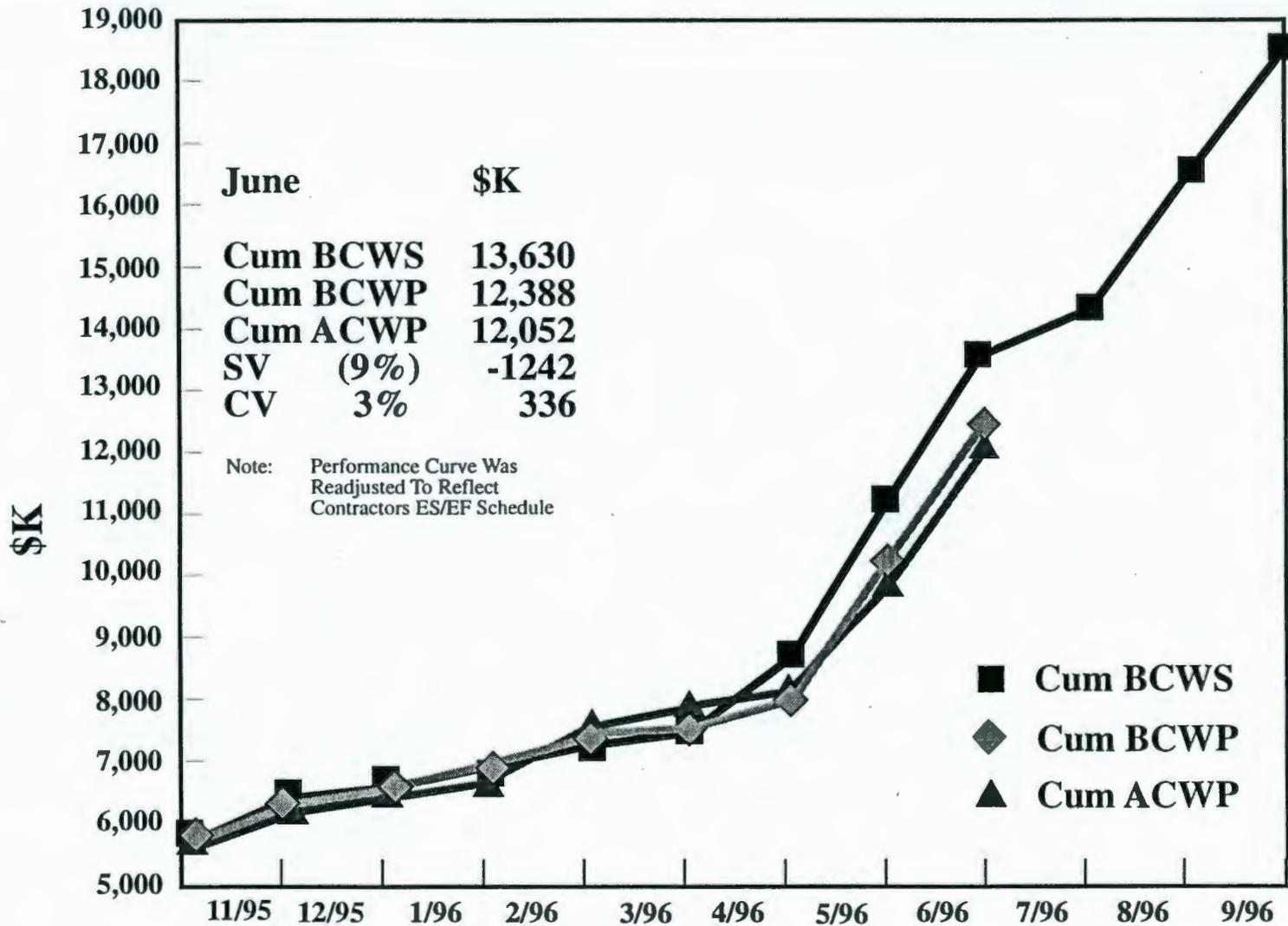
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# MILESTONE STATUS

- **CONSTRUCTION PACKAGES AWARDED**
- **PIPE FABRICATION AND INSTALLATION HAS COMMENCED**
- **EXCAVATION IN SY-FARM AND 244-A LIFT STATION ON SCHEDULE**
- **DIVERSION BOX/VENT STATION CONSTRUCTION HAS BEGUN**

# Project W-058

## Capital Performance FY96



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**MILESTONE M-44-00**

**DOUBLE AND SINGLE-SHELL  
TANK CHARACTERIZATION**

**J. Thompson**

**July 1996**

9713508.1232

# TOPICS

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- **Accomplishments**
- **Planned Sampling Activities**
- **FY 1996 Cost/Schedule Assessment**
- **TPA Milestone Status**
- **Issues/Problems**

# ACCOMPLISHMENTS

- **Samples Taken: May and June, 1996**

	<b>May, 1996 Samples</b>		<b>June, 1996 Samples</b>	
	<b>Planned</b>	<b>Completed</b>	<b>Planned</b>	<b>Completed</b>
<b>Rotary</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>4</b>
<b>Push</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>Auger</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grab</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>
<b>Vapor</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>7</b>

**Note: Planned is from Schedule 4.5**

# ACCOMPLISHMENTS

- Tanks Sampled During Months of May and June 1996

<u>Vapor</u>	<u>Grab</u>	<u>Auger</u>	<u>Push</u>	<u>Rotary</u>
BX-110	T-103		AW-101 (HPT-RGS)	U-102 (OR)
S-109	AY-102		AN-105 (HPT-RGS)	U-108 (HPT)
S-101	U-101			U-106 (OR)
S-103	C-106 (2)			S-111 (OR)
S-106	AW-101 (2)			
S-107				
C-201				
C-202				

# ACCOMPLISHMENTS

## FY 1996 Sampling

	<b>FY 1996 MYPP</b>	<b>Current Baseline</b>	<b>Pending Change</b>	<b>Accomplished to date</b>
<b>Rotary<sup>2</sup></b>	<b>45</b>	<b>43<sup>2</sup></b>	<b>41<sup>2</sup></b>	<b>36</b>
<b>Push<sup>1</sup></b>	<b>12</b>	<b>14<sup>1</sup></b>	<b>16<sup>1</sup></b>	<b>10</b>
<b>Auger<sup>3</sup></b>	<b>16</b>	<b>12<sup>*</sup></b>	<b>9<sup>**</sup></b>	<b>9</b>
<b>Grab</b>	<b>30</b>	<b>20</b>	<b>28</b>	<b>26</b>
<b>Vapor</b>	<b>48</b>	<b>48</b>	<b>48</b>	<b>32</b>
<b>Vapor Sniffs</b>	<b>0</b>	<b>50</b>	<b>50</b>	<b>40</b>

<sup>1</sup> Push increased to accomplish additional RGS

<sup>2</sup> Rotary decreased to accomplish additional push

<sup>3</sup> Decreased to accomplish sniffs (\*) & privatization (\*\*)

# **ACCOMPLISHMENTS**

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## **Major Improvements in Sampling and Laboratory Productivity over FY 1995**

- **Increased core samples per month by 45% (3.3 to 4.8)**
- **Increased core segments per available shift by 120%**
- **Improved core sample truck availability to 65%**
- **Steadily increasing trend on core sample recovery**
- **Increased analytical laboratory capacity by 42% and output by 400% (since mid 1994)**
- **Reengineered and simplified three sampling processes (59% page reduction)**
- **Completed core sampling in 16 of 28 High Priority Tanks (3 incomplete sampling events)  
Qualified In-Situ Sampling System (vapor cart)**

# ACCOMPLISHMENTS

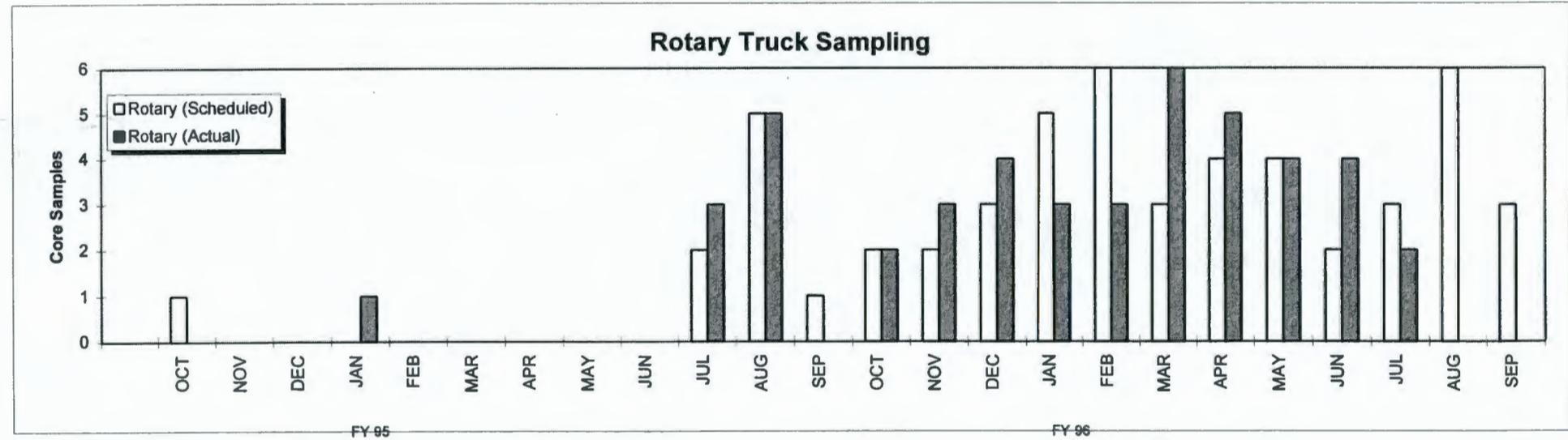
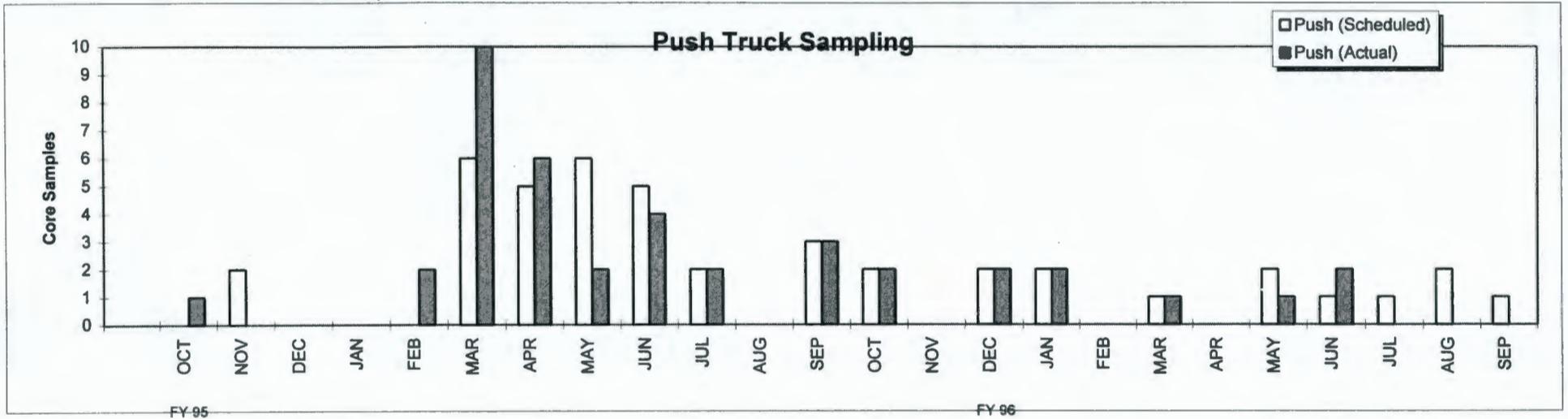
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## Major Improvements in Sampling and Laboratory Productivity over FY 1995

- Passed Independent RL Conduct of Operations Assessment of Sampling Operations
- Completed 3rd tier review of Safety Assessment for Rotary Mode Core Sampling in Flammable Gas tanks
- Approved Interim Safety Basis for 222-S Laboratory
- Submitted Revision 1 to DNFSB Recommendation 93-5 Implementation Plan

# Characterization

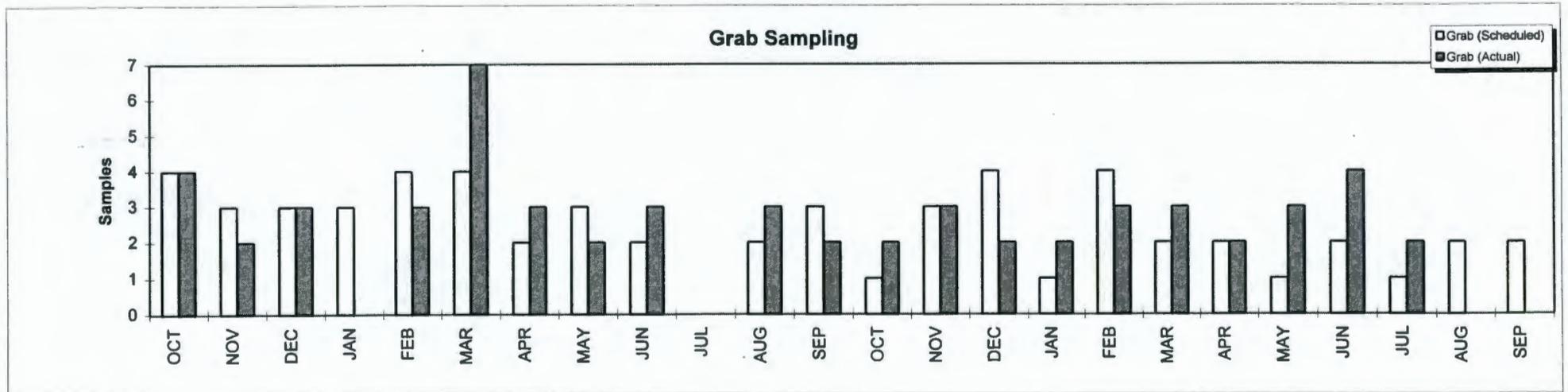
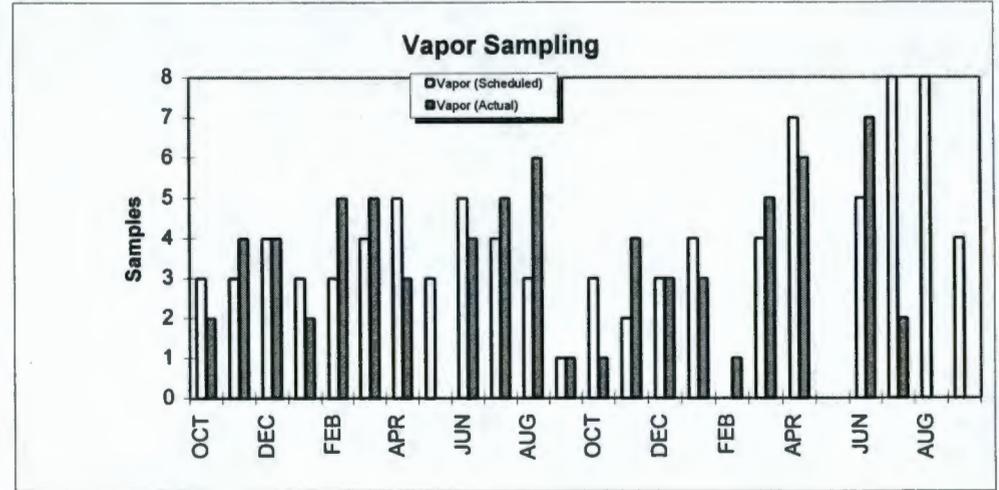
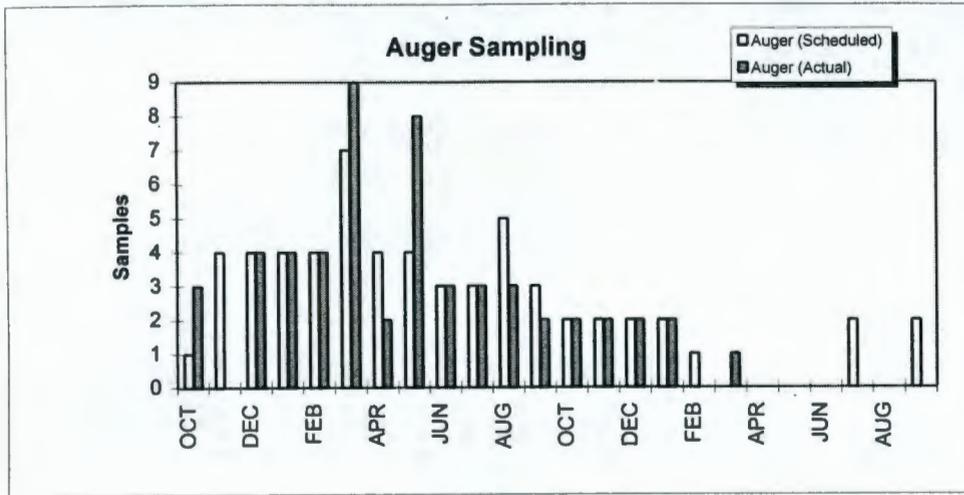
## Push and Rotary Sampling



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# Characterization

## Auger, Vapor, and Grab Sampling

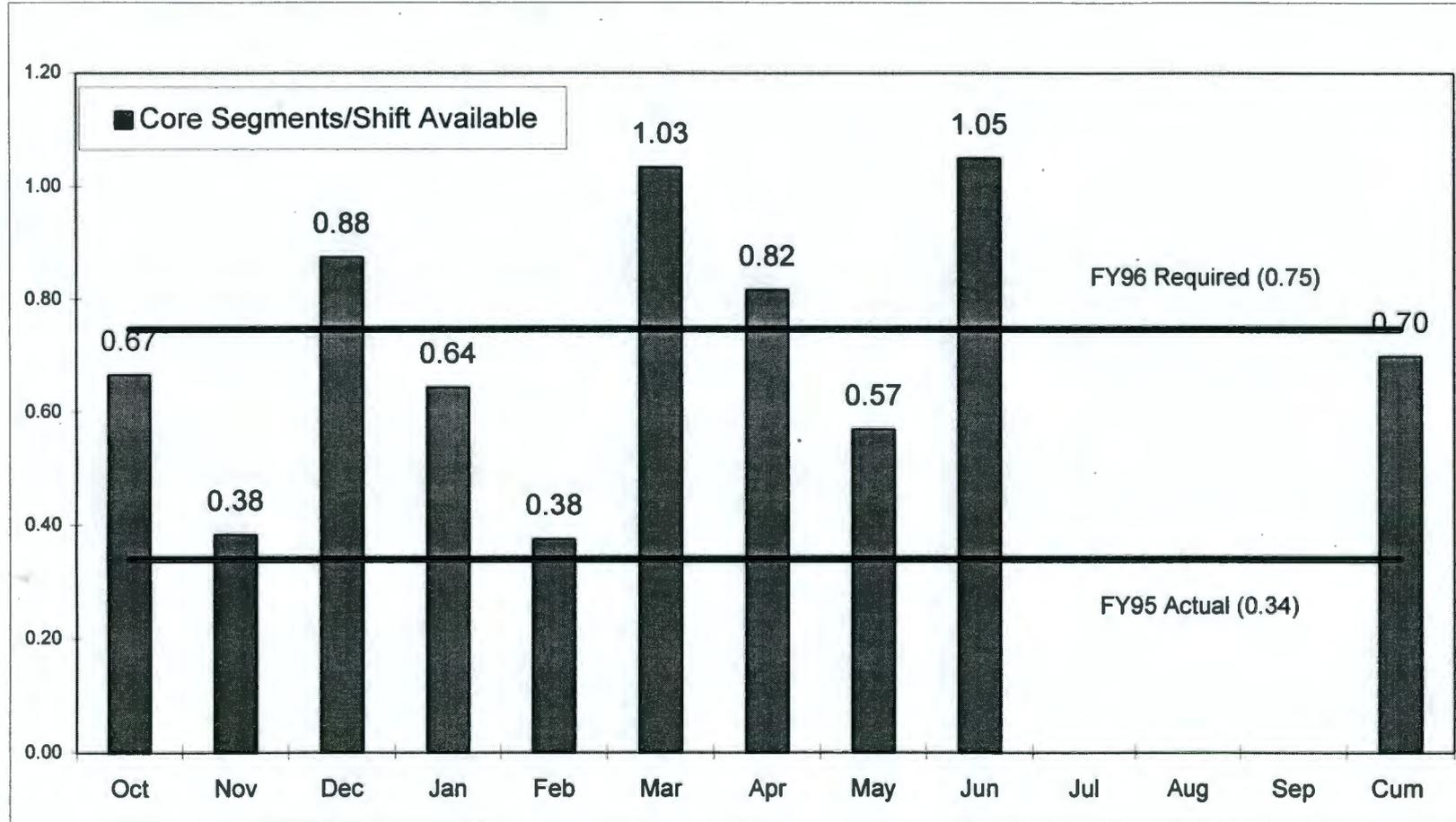


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# Characterization

## Push and Rotary Sampling



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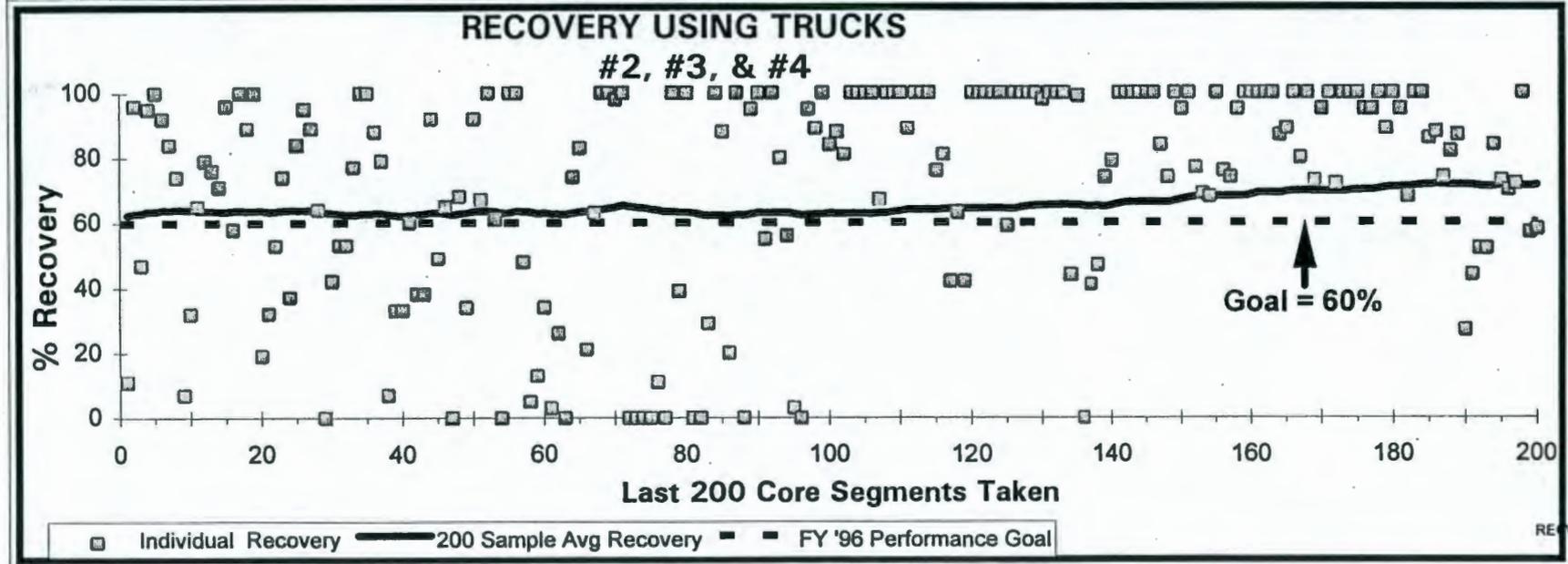
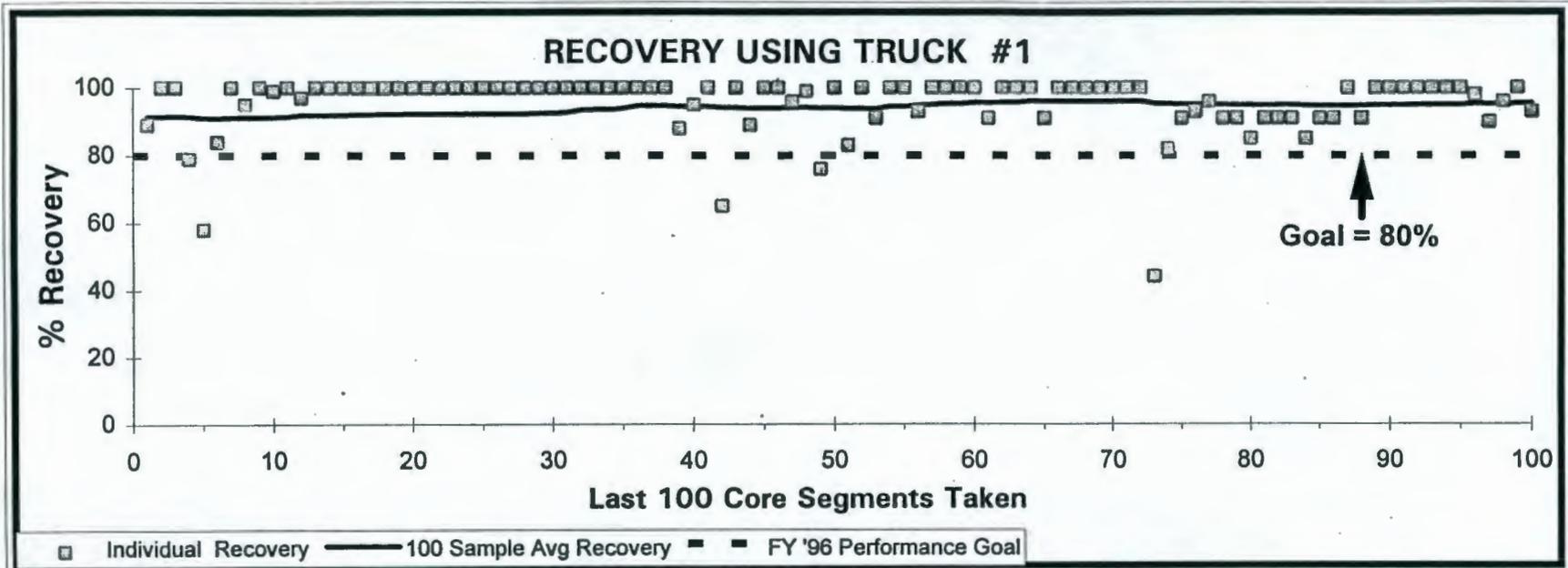
# Characterization Sampling Events

WEEK ENDING	RMCS T #2, #3, #4	PMCS T #1	TOTAL CORES	AUGER	GRAB	VAPOR	COMMENTS
<b>96 MYPP</b>	<b>43</b>	<b>14</b>	<b>57</b>	<b>12</b>	<b>25</b>	<b>48</b>	
5/5/96	U-102 <sup>(O,12)*</sup>		1		T-103	BX-110	* 6 of 8 Segments
5/12/96	U-108 <sup>(E,6)</sup> U-106 <sup>(O,43)</sup> (2)		3				
5/19/96			0		AY-102		
5/26/96	S-111 <sup>(O,30)</sup>	AW-101 <sup>(E,38)</sup>	2				
6/2/96			0		U-101		
6/9/96			0			S-109 S-101	
6/16/96	BY-107 <sup>(O,25)</sup>		1			S-103 S-106	
6/23/96	S-111 <sup>(O,30)*</sup> BY-102 <sup>(O,14)</sup>	AN-105 <sup>(E,54)</sup>	3			S-107 C-201	* 3 of 11 Segments
6/30/96	S-109 <sup>(O,34)*</sup>	AN-105 <sup>(E,54)</sup>	2		C-106 (2) AW-101 (2)	C-202	* 4 of 10 Segments
7/7/96	S-109 <sup>(O,34)*</sup>		1			C-204	* 2 of 10 Segments
7/14/96	BY-102 <sup>(O,14)*</sup>		1		AN-107 (2)	U-112	* 2 of 4 Segments
7/21/96			0				
7/28/96			0				
YTD	<b>36</b>	<b>10</b>	<b>46</b>	<b>9</b>	<b>26</b>	<b>32</b>	
Schld YTD	<b>33</b>	<b>10</b>	<b>43</b>	<b>9</b>	<b>20</b>	<b>32</b>	

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# Characterization

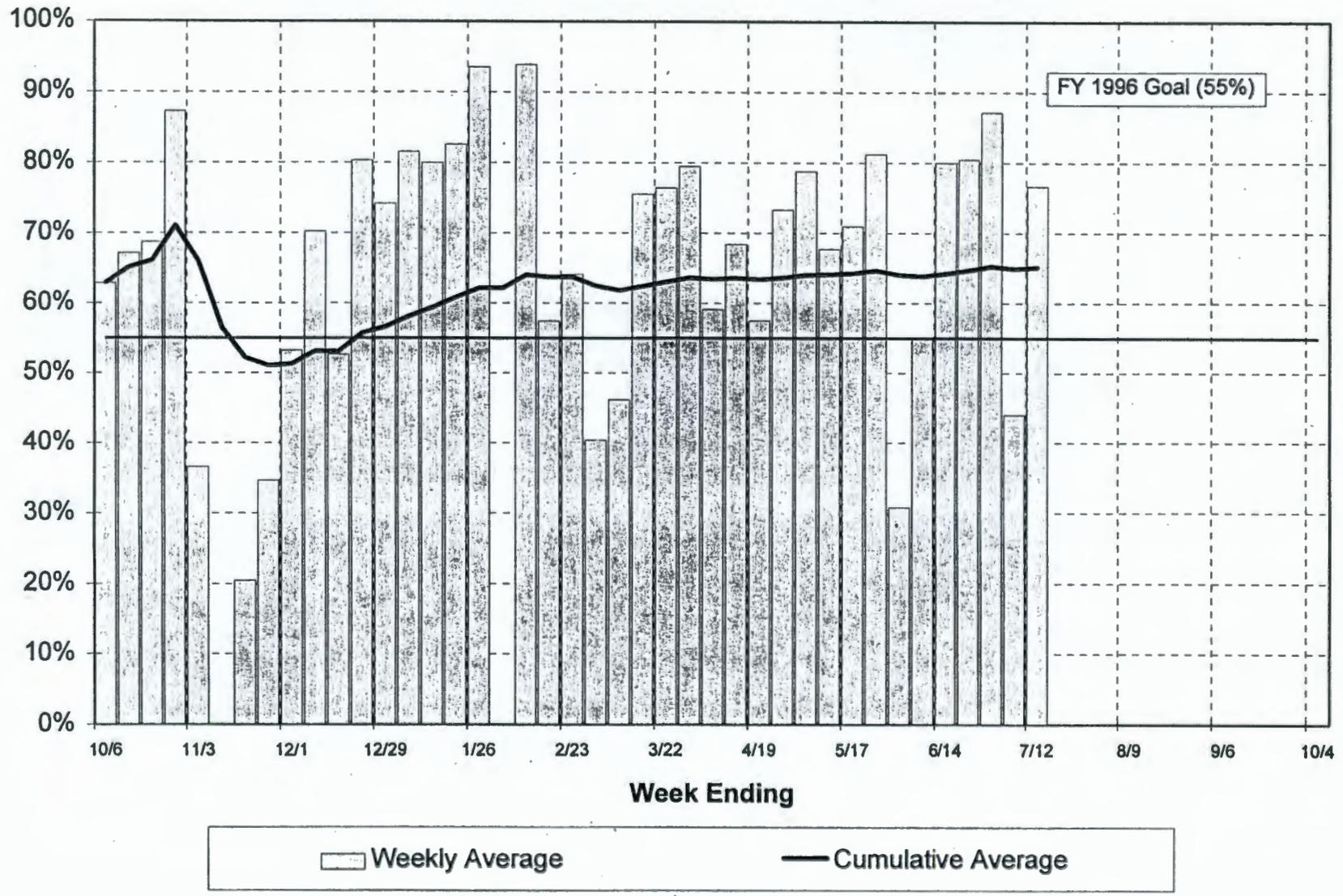
## Sample Recovery



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# Characterization

## Core Sampling Systems Availability (FY1996)



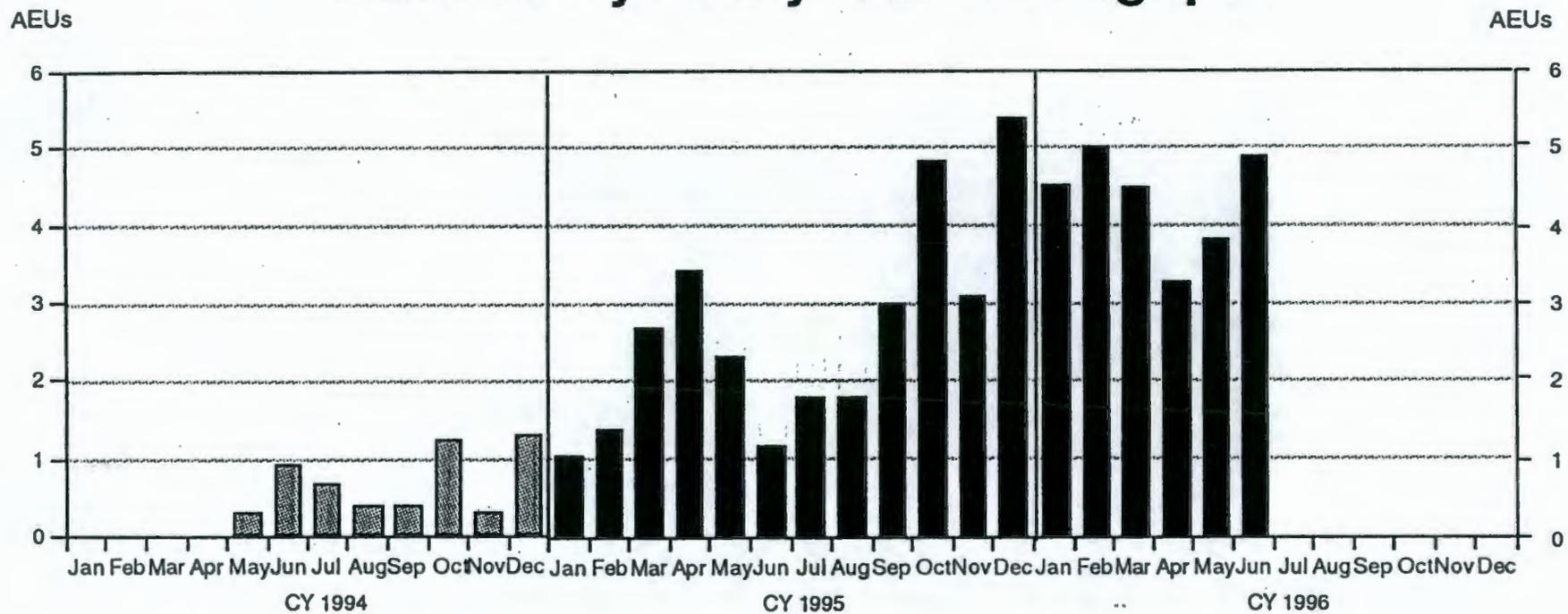
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# Characterization

## 222-S Laboratory Performance

### Laboratory Analytical Throughput



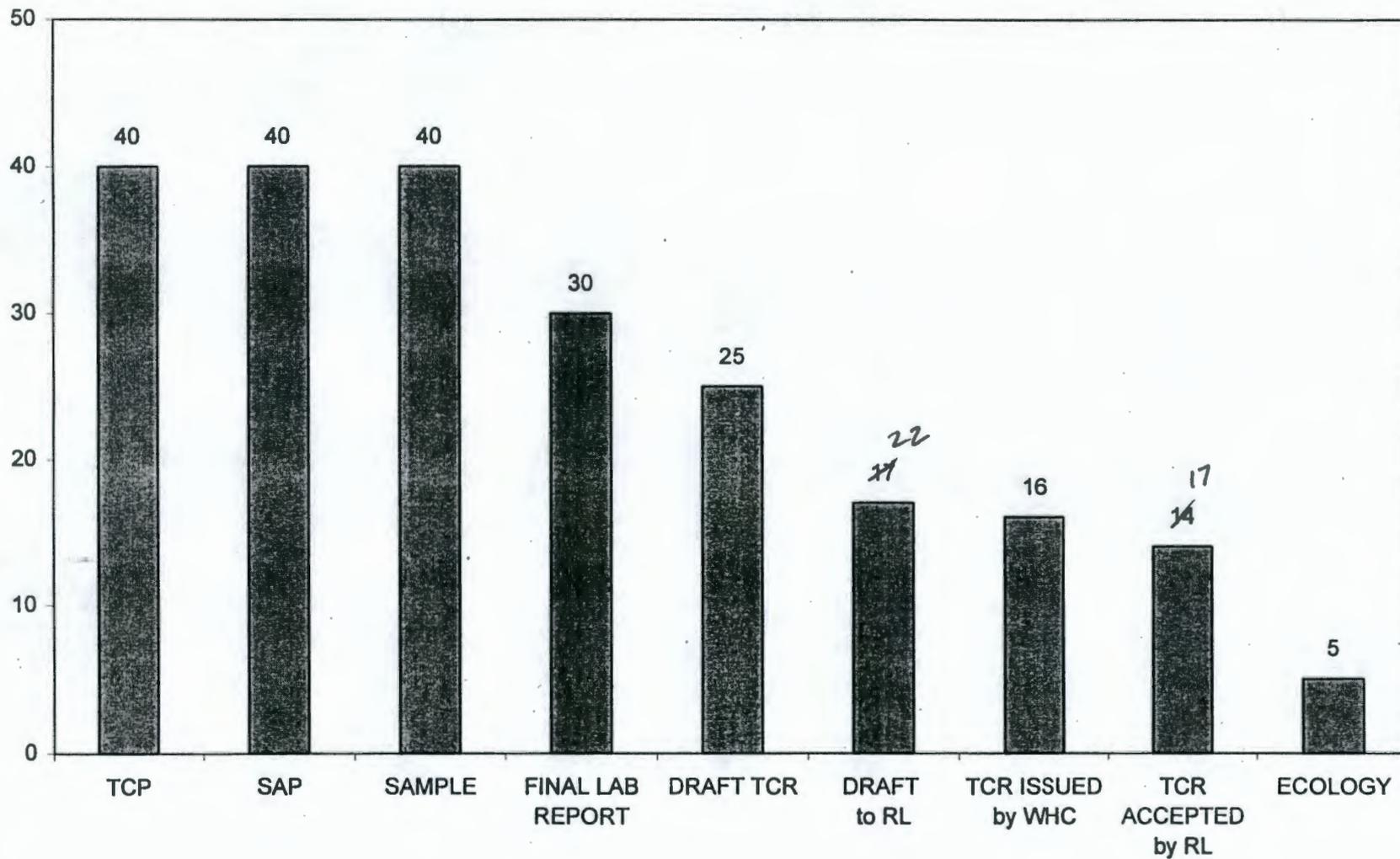
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# Characterization

TARGET TCRs (40)

Status Date

7/15/96



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# ACCOMPLISHMENTS

---

## Status of the 28 High Priority Tanks

- 16 tanks have been core sampled
  - 3 of these 16 tanks have incomplete sampling events - unable to obtain full depth cores in push mode
- 12 tanks have laboratory analysis completed

# ACCOMPLISHMENTS

## Status of the 28 High Priority Tanks

Tank	Rank	Planned Samples	Samples Obtained	Sampling Completed	Lab Analyses Completed
BY-105 <sup>1</sup>	100	2R <sup>5</sup>	1 partial core, need rotary to complete	10/6/95	4/29/96
U-105 <sup>1</sup>	93	3R <sup>3</sup>	3 cores	3/18/96	6/25/96
U-109 <sup>1</sup>	91	3R <sup>3</sup>	3 cores	1/18/96	6/29/96
BY-103 <sup>1</sup>	86	2R <sup>5</sup>	need rotary		
U-108 <sup>1</sup>	84	3R <sup>3</sup>	3 cores	5/6/96	est 8/16/96
U-107 <sup>1</sup>	76	3R <sup>3</sup>	3 partial cores, need rotary to complete	3/28/96	6/25/96
BY-106 <sup>1</sup>	74	2R <sup>3</sup>	2 cores <sup>6</sup>	12/19/95	4/29/96
S-102	74	2R <sup>3</sup>	2 cores	3/8/96	7/7/96
SX-103	67	2R <sup>5</sup>	need rotary		
BY-108 <sup>1</sup>	65 <sup>2</sup>	3R	3 cores	8/18/95	2/12/96
A-101	62	3R <sup>5</sup>	decision made 5/20/96 to push mode sample with RGS (truck #1). Sampling started 7/11/96.		
TX-118	61	3R <sup>5</sup>	need rotary		
SX-104	61	3R <sup>5</sup>	need rotary		

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# ACCOMPLISHMENTS

## Status of High Priority Tanks (con't)

BY-110 <sup>1</sup>	52 <sup>2</sup>	3R	6 cores	10/20/95	4/25/96
TX-111	51	2R <sup>5</sup>	need rotary		
BY-104 <sup>1</sup>	51	2R <sup>3</sup>	2 cores	11/15/95	5/2/96
C-104	50	2R <sup>5</sup>	decision made 5/20/96 to push mode sample starting July 1996		
S-107	50	3P	3 cores	9/28/95	7/7/96
S-101	50	2R <sup>3</sup>	2 cores	4/3/96	7/7/96
TY-103 <sup>1</sup>	50	3R <sup>5</sup>	need rotary		
SX-101	49	2R <sup>5</sup>	need rotary		
S-110	47	2R <sup>3</sup>	1 partial core, need rotary to complete	4/11/96	on hold
AW-101	47	2P <sup>4</sup>	2 RGS cores	5/6/96	est 8/20/96
AN-104	46	2P <sup>4</sup>	need RGS (truck #1), follows A-101		
AX-101	43	3R <sup>5</sup>	need rotary		
AN-105	37	2P <sup>4</sup>	2 RGS cores	6/28/96	
AN-103	36	2P <sup>4</sup>	need RGS (truck #1), follows AN-104		
B-104	15	2P	2 cores	6/14/95	10/1/95

General Notes:

# ACCOMPLISHMENTS

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## Status of High Priority Tanks (con't)

P = push mode core sample

R = rotary mode core sample

RGS = Retained Gas Sample (RGS). RGS can only be used with truck #1 (push mode truck).

- <sup>1</sup> High Priority Tanks (HPTs) designated for additional laboratory analysis (related to organic aging and organic solubility as well as propagation testing with real waste using the Propagating Reactive System Screening Tool (PRSST)) in the Test Plan for Samples From Hanford Waste Tanks 241-BY-103, BY-104, BY-105, BY-106, BY-108, BY-110, TY-103, U-105, U-107, U-108, AND U-109 (WHC-SD-WM-TP-378).
- <sup>2</sup> High Priority Tanks (BY-108 & BY-110) selected for rotary mode core sampling testing to develop rotary mode core sampling procedures (July 1995 - October 1995).
- <sup>3</sup> High Priority Tanks originally scheduled for rotary mode core sampling which were push mode sampled using rotary trucks based on the results of the rotary mode core sampling testing conducted in BY-108 & BY-110. This allowed sampling of some High Priority Tanks to proceed until authorization for rotary mode core sampling in flammable gas atmospheres is obtained.
- <sup>4</sup> High Priority Tanks which require sampling with truck #1 and Retained Gas Sampler. Retained Gas Sampler laboratory extrusion system completed December 1995. Originally, only High Priority Tanks (HPTs) AW-101, AN-103, AN-104 and AN-105 required sampling with the RGS. Tank A-101 was determined to require sampling with RGS on 5/20/96.
- <sup>5</sup> High Priority Tanks which were determined to require rotary mode core sampling based on the results of the rotary mode core sampling conducted in BY-108 and BY-110 (July - October 1995).
- <sup>6</sup> First rotary mode core obtained with nitrogen purge during period October 1994 to January 1995.

## Sampling Schedule for Fourth Quarter 1996 (July through September)

<u>TITLE</u>	<u>Early Start</u>	<u>Early Finish</u>
S-109 Rotary Samples 2 Segments 11 Off Ramp	5/30/96	7/2/96
BY-107 Rotary Samples 2 Segments 6 Off Ramp	6/18/96	7/23/96
C-107 Temporal Vapor Sample (3)	7/1/96	7/2/96
A-101 Push Samples 3 Segments 19 High Priority	7/3/96	8/23/96
BY-108 Temporal Vapor Sample (3)	7/3/96	7/8/96
S-102 Temporal Vapor Sample (3)	7/9/96	7/10/96
AW-101 Grab Sample (Privatization)	7/11/96	7/15/96
BX-104 Temporal Vapor Sample (4)	7/11/96	7/12/96
T-103 Auger Sample 2 Segments 1	7/15/96	7/19/96
C-201 Vapor Sample (4)	7/15/96	7/17/96
C-202 Vapor Sample (4)	7/18/96	7/19/96
C-204 Vapor Sample (4)	7/22/96	7/23/96
U-112 Vapor Sample (4) (Rotary)	7/24/96	7/25/96
S-110 Rotary Samples 2 Segments 8 High Priority	7/25/96	8/27/96
C-104 Rotary Samples 2 Segments 5 High Priority	7/26/96	8/28/96
BY-102 Rotary Samples 2 Segments 5 Off Ramp	7/26/96	8/28/96
AY-102 Grab Sample	7/30/96	8/1/96
U-104 Vapor Sample (4)	8/5/96	8/6/96
T-106 Testing Light Duty Utility Arm	8/8/96	9/25/96
TX-104 Vapor Sample (4) (Rotary)	8/9/96	8/12/96
BY-101 Vapor Sample (4) (Rotary)	8/13/96	8/14/96
AN-107 Grab Sample - (Privatization)	8/14/96	8/16/96
B-202 Vapor Sample (4)	8/15/96	8/16/96
B-107 Vapor Sample (4) (Rotary)	8/19/96	8/20/96
B-105 Vapor Sample (4) (Rotary)	8/21/96	8/22/96

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# FY 1996 COST/SCHEDULE ASSESSMENT

<b>Note: Dollars in Millions</b>	<b>Cumulative to Date</b>	<b>At Completion</b>
<b>Budgeted Cost Work Scheduled (BCWS)</b>	<b>65.5M</b>	<b>87.7M</b>
<b>Budgeted Cost Work Performed (BCWP)</b>	<b>64.8M</b>	<b>87.7M</b>
<b>Actual Cost Work Performed (ACWP)</b>	<b>64.8M</b>	<b>87.7M</b>
<b>Variances:</b>		
<b>Costs (Note 1)</b>	<b>0.0M</b>	<b>0.0M</b>
<b>Schedule (Note 2)</b>	<b>-0.7M</b>	<b>0.0M</b>

**Note 1:  $BCWP - ACWP = \text{Cost Variance}$**

**Note 2:  $BCWP - BCWS = \text{Schedule Variance}$**

# FY 1996 PROBABLE TANK CHARACTERIZATION REPORTS

Tank	Sample Type	Planned DQO Analyses*	TCP Document Number
A-102	2 Augers, Vapor	6	WHC-SD-WM-TP-358 R4
AN-101	Grab	6, 7	WHC-SD-WM-TP-413 R3
AN-102	Grab	6, 7	WHC-SD-WM-TP-216 R4
AN-106	Grab	6	WHC-SD-WM-TP-407 R3
AN-107	Grab, Vapor	6, 7	WHC-SD-WM-TP-215 R4
AP-104	Grab	6, 7, 9	WHC-SD-WM-TP-414 R3
AP-108	Grab	6, 7	WHC-SD-WM-TP-419 R3
AY-101	Grab	6, 7, 9	WHC-SD-WM-TP-406 R3
B-101	2 Cores	6	WHC-SD-WM-TP-350 R4
B-104	2 Cores	5, 6	WHC-SD-WM-TP-349 R4
B-106	2 Cores	5, 6	WHC-SD-WM-TP-353 R4
B-203	2 Cores	6	WHC-SD-WM-TP-354 R3
B-204	2 Cores	6	WHC-SD-WM-TP-355 R3
BX-103	2 Cores	6	WHC-SD-WM-TP-339 R4
BX-104	2 Cores, Vapor	3, 6	WHC-SD-WM-TP-296 R4
BX-106	2 Augers, Grab	6, 7	WHC-SD-WM-TP-240 R4

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# FY 1996 PROBABLE TANK CHARACTERIZATION REPORTS (con't)

BX-109	2 Cores	5, 6	WHC-SD-WM-TP-338 R4
BX-110	2 Augers	3, 5, 6	WHC-SD-WM-TP-382 R3
BX-112	2 Cores, 2 Augers	5, 6	WHC-SD-WM-TP-341 R3
BY-104	2 Cores, Vapor	2, 5, 6	WHC-SD-WM-TP-230 R3
BY-105	1 Incomplete Core, Grab, Vapor	2, 5, 6, 7	WHC-SD-WM-TP-218 R4
BY-106	2 Cores, Vapor	2, 3, 5, 6, 7	WHC-SD-WM-TP-217 R4
BY-108	3 Cores, 2 Augers, Vapor	2, 3, 5, 6	WHC-SD-WM-TP-275 R4
BY-110	6 Cores, Vapor	2, 3, 5, 6	WHC-SD-WM-TP-279 R4
C-103	2 Cores, Vapor	3, 6	WHC-SD-WM-TP-207 R5
C-106	Grab, Vapor	6, 7, 10	WHC-SD-WM-TP-212 R4
C-108	2 Augers, Vapor	2, 6	WHC-SD-WM-TP-211 R5
C-204	2 Augers	6	WHC-SD-WM-TP-307 R4
S-101	2 Cores, Vapor	5, 6	WHC-SD-WM-TP-386 R3
S-102	2 Cores, Vapor	3, 5, 6	WHC-SD-WM-TP-238 R3
S-107	3 Cores	5, 6	WHC-SD-WM-TP-348 R4
SX-108	3 Augers (Not full depth)	6	WHC-SD-WM-TP-405 R3
SY-103	1 Core	6	WHC-SD-WM-TP-197 R4
T-106	2 Augers	6	WHC-SD-WM-TP-366 R3

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# FY 1996 PROBABLE TANK CHARACTERIZATION REPORTS (con't)

T-108	3 Augers	5, 6	WHC-SD-WM-TP-367 R3
T-109	2 Augers	5, 6	WHC-SD-WM-TP-368 R3
TX-107	2 Augers	6	WHC-SD-WM-TP-420 R3
U-105	3 Cores, Grab, Vapor	3, 5, 6, 7	WHC-SD-WM-TP-289 R3
U-107	3 Partial Cores, Grab, Vapor	3, 5, 6, 7	WHC-SD-WM-TP-244 R3
U-109	3 Cores, Grab, Vapor	3, 5, 6, 7	WHC-SD-WM-TP-316 R3

\*1=Flammable Gas; 2=Ferrocyanide; 3=Organic; 4=Pretreatment; 5=Historical; 6=Safety screening;  
7=Compatibility; 8=Retrieval; 9=Evaporator; 10=High Heat

# ISSUES

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**No final agreement on FY 1996 TWAP and TCRs**

**No rotary mode core sampling system is currently qualified for sampling in flammable gas atmospheres. Eight existing High Priority Tanks require rotary mode core sampling. All tanks are subject to flammability controls, precluding rotary mode core sampling until truck #4 is qualified on August 26, 1996.**

**Truck #4 will be qualified August 26, 1996**

**Truck #3 will be qualified January 1997**

**Truck #2 will not be modified to comply with Rotary Mode Core Sampling in Flammable Gas Atmospheres until January 1996. Can only be used to sample lower priority, pushable tanks.**

## **ISSUES (con't)**

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**FY 1997 budget supports from a low of 15 TCRs to a high of 29 TCRs if 2 core samples required for all TCRs. Actual quantity will depend on impacts of Rotary Mode Core Sampling in Flammable Gas Tank Safety Assessment, implementation of Basis for Interim Operation, and final budget as well as acceptability of TCRs based on incomplete sampling events.**

**Tank Waste Characterization Basis, Revision 2, will increase number of tanks requiring core sampling with Retained Gas Sampler from 4 tanks (revision 1) to approximately 14 tanks**

**Only Truck #1 is qualified for Retained Gas Sampling**

**Truck #1 will not comply with the Basis for Interim Operation**

## **ISSUES (con't)**

---

**Truck #1 will require exemption from Basis for Interim Operation**

**FY 1997 budget may necessitate reduction of sampling and laboratory resources**

## WHERE ARE WE GOING?

---

- **Priority will be given to sampling and laboratory analysis of the High Priority Tanks**
- **Continue sampling to provide added confidence in safety program**
- **Continue sampling to provide information for other programmatic issues (i.e., operations, retrieval, processing, and privatization)**
- **All tanks will be sampled and analyzed unless justified on a technically defensible basis**

## WHAT HAVE WE LEARNED RECENTLY?

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- **Ferrocyanide has degraded to insignificant fuel values**
- **Organics appear to degrade and are lower than predicted**
- **Saltcake is softer than expected in many tanks**
- **C-106 has residual organics which separate on centrifuging**
- **Preliminary results from retained gas sampling show significant nitrogen (inert) content**
- **Steady state combustible gas concentrations are significantly below L.F.L.**
- **More iron and chromium in the tanks than predicted (due to corrosion)**

# **MILESTONE M-45-00**

## **COMPLETE CLOSURE OF ALL SINGLE SHELL TANK FARMS**

**W.R. Wrzesinski**

# Single-Shell Tank Project

**M-45-02A**    **Submit Initial SST Retrieval Sequence Document (September 1996)**

**M-45-03A**    **Initiate Sluicing Retrieval of C-106 (October 1997)**

**M-45-04A**    **Complete Conceptual Design for Initial SST Retrieval Systems (April 1997)**

**M-45-08A**    **Establish Criteria for LDMM (April 1997)**

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# Single-Shell Tank Project (cont'd)

**M-45-09A**    **Submit Annual Progress Reports on  
Waste Tank LDMM in Support of  
M-45-08 (September 1996)**

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# **Double-Shell Tank Project**

## **DST Waste Consolidation/Immobilization Support**

**W-151 Mixer Pump Installation (Tank 101-AZ)  
Complete June 1996.**

**W-211 Title II Design (Tank 102-SY) On Schedule  
(March 1997 Completion).**

**Conducting Evaluations for W-211 Tanks for  
Privatization.**

# Closure Project

## SST Closure Work Plan

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**M-46 MILESTONES**

**DOUBLE SHELL TANKS**

**M. L. Ramsay**

9713508.1266

# Background

- **Waste Volume Projections (long-time running)**
- **Phase-out of Multi-Function Waste Tank Facility (MWTF)**

**M-42-00 Provide Additional DST Capacity - TBD**

- **Nine Technical Reasons**

**Ref: CCF M-42-95-01**

- **No New Tanks Til 2004 (or beyond)**
- **Two New Milestones**

**M-46-01B-Z New Tank Acquisition**

**M-46-00B-Z DST Space Evaluation**

# **Phase-Out Basis - Waste Management Actions**

- **Waste Consolidation Studies**
- **Validate Concentration Limits**
- **Contingency Space Analysis**
- **Evaluate Spare Space**
- **Develop Fallback Plans**
- **Upgrade Hardware/Software For Better Operational Waste Volume Projections (OWVP)**

**Most of this work is complete or is nearing completion.**

# Milestones

**M-46-00C Double-Shell Tank Space Evaluation  
9/30/96**

This new milestone replaces existing milestone M-31-02. A tank volume projection report shall be submitted on an annual basis to Ecology and EPA. This report shall include discussions covering all assumptions which form the basis of the projection. The report shall include or shall be accompanied by DOE's plans for acquisition of additional tanks based on the tank volume projection.

**M-46-01C Concurrence of Additional Tank Acquisition  
11/30/96**

This is a new interim milestone. The three parties shall meet to establish new milestones, if required, for acquisition of additional tanks.

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# Operational Waste Volume Projection Report

The OWVP presents a basis for evaluating future DST space through FY2015. This report presents a projected range of tank needs which is used to generate recommendations regarding site activities, waste management activities, facility requirements, and the need to build additional DSTs.

## Process:

Assumptions

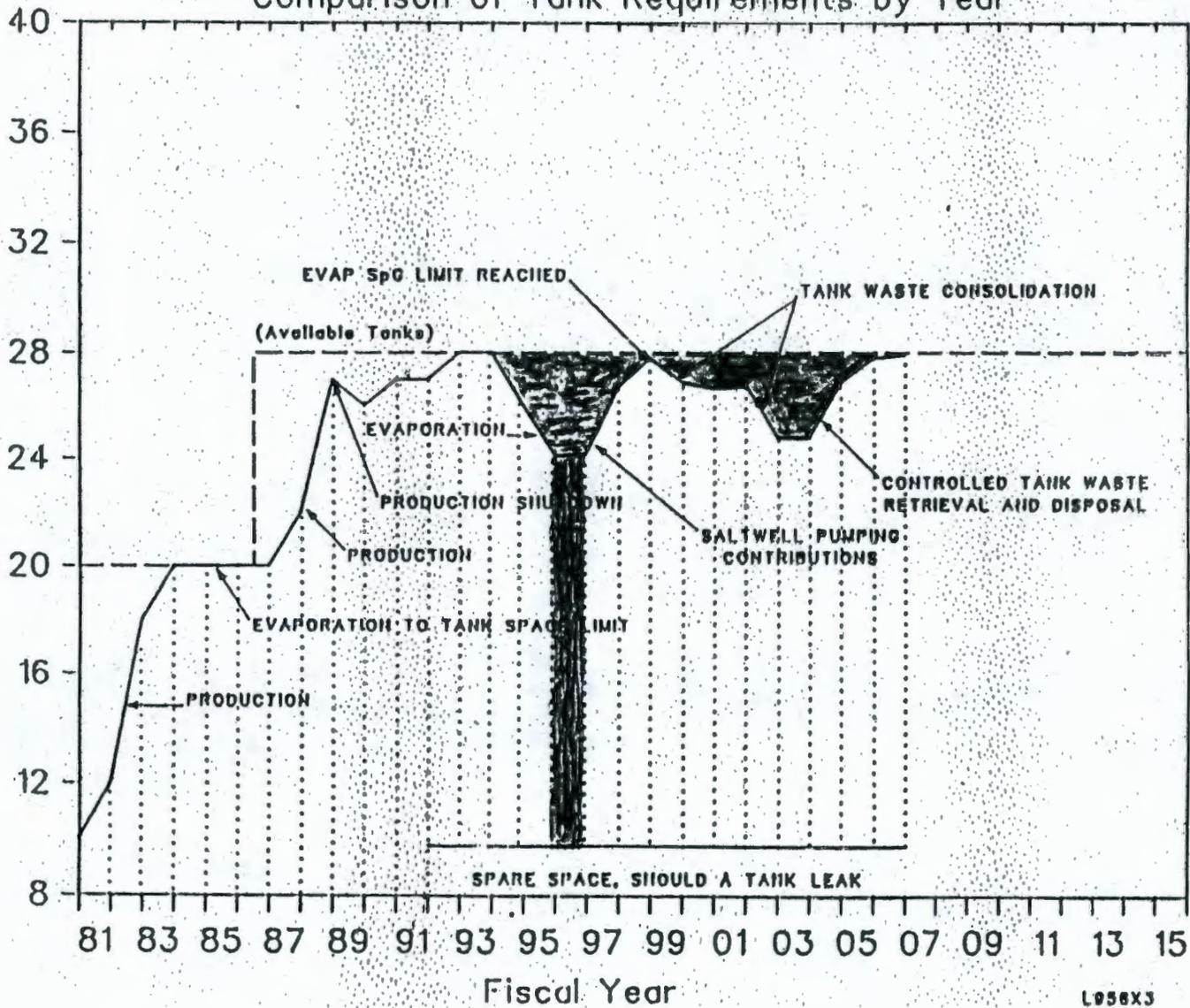
Historical Waste Volume Data

Projections

OWVP Report

Comparison of Tank Requirements by Year

Double-Shell Tanks



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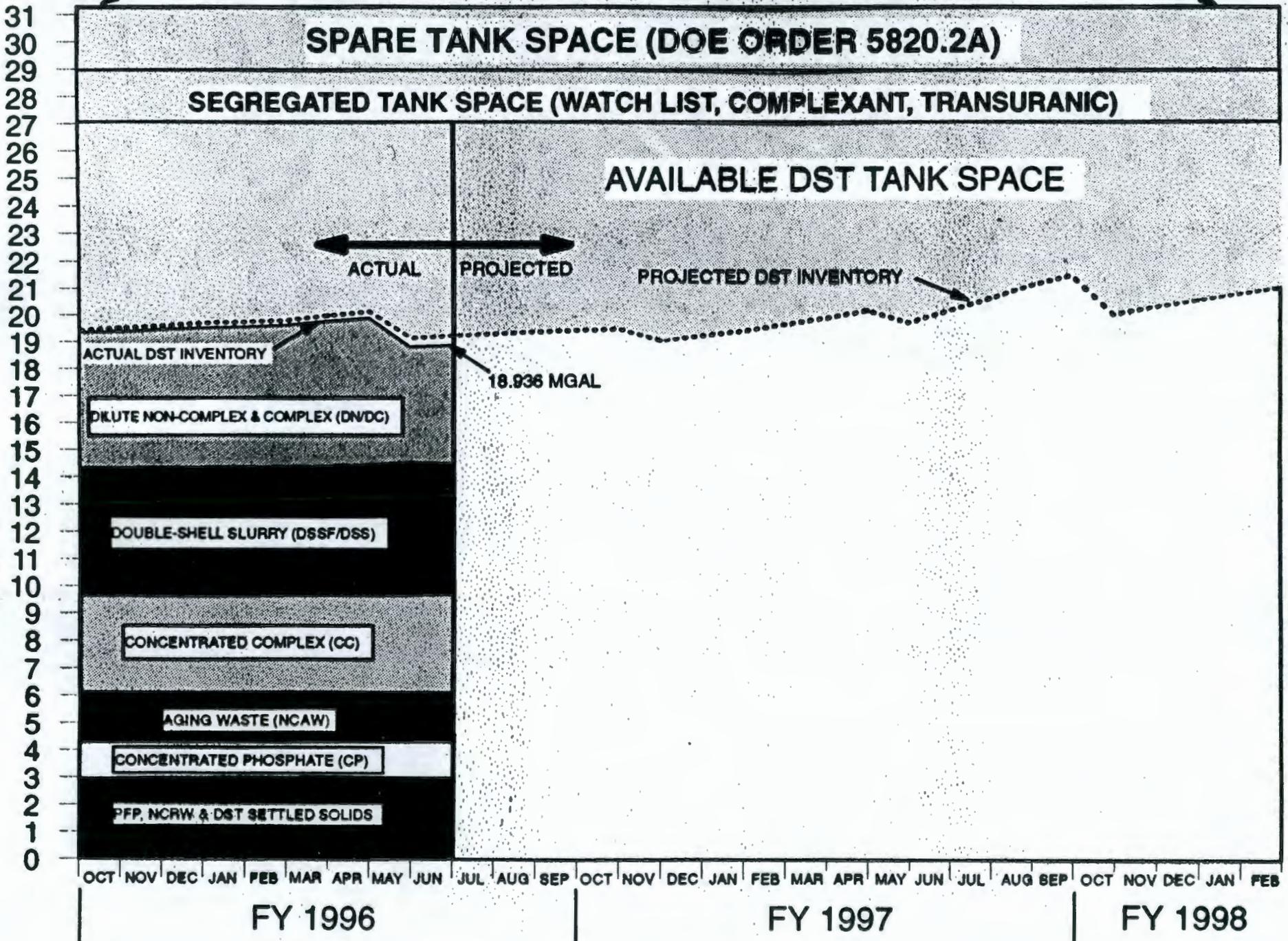
TOTAL AVAILABLE DOUBLE-SHELL TANK SPACE (31.28 MGAL OR 28 TANKS)

SPARE TANK SPACE (DOE ORDER 5820.2A)

SEGREGATED TANK SPACE (WATCH LIST, COMPLEXANT, TRANSURANIC)

AVAILABLE DST TANK SPACE

MILLIONS OF GALLONS



# Schedule

- Issue and Resolve Assumptions - Complete**
- OWVP Projections (Three) - August 5, 1996**
- Bar Graph and Spreadsheets - July 22, 1996**
- Draft OWVP Report (WHC) - August 19, 1996**
- OWVP Report to DOE - August 30, 1996**
- Issue Final OWVP (approved) - September 30, 1996**

**Activities are on schedule.**

# Issues

None

## Note:

**Preliminary projections are indicating that new tanks may be needed sooner than 2004. Lead time for new tanks is at least five years.**

**Tank Farm Restoration and Safe Operation  
(TFRSO)**

**Project W-314**

# Upgrade Tank Farm

- **Ventilation**
- **Instrumentation**
- **Electrical**
- **Piping**
- **Support Privatization Projects**

Objective is to restore existing ~~tank~~ facilities to acceptable design basis for continuous waste storage operation including support for privatization.

# ORGANIZATION

## DOE

Waste Storage Division Director - J. K. McClusky

Waste Storage Division/Tank Farm Operations Director - A. B. Sidpara

Waste Storage Division/TOP East Tank Farm Project Manager - M. J. Royack

Waste Storage Division/TOP Project W-314 Project Engineers

- J. E. Navarro
- G. M. Ramin

## WHC

Program/Project Manager - W. W. Rutherford

Project Engineer - K. A. Boes

PROJECT W-314 CURRENT STATUS - JULY 1996

MILESTONE NUMBER	DESCRIPTION	DUE DATE	FORECAST/ ACTUAL DATE	REMARKS
M-43-09	Complete CDR for Project W-314	5/31/96	4/30/96 (Actual)	Completed (completion of this milestone also achieves closure for outstanding milestones M-43-02A and M-43-04A, both due 5/31/95)
M-43-10	Start definitive design for Project W-314	1/31/97	1/2/97	On schedule
M-43-11	Provide the W-314 project construction schedule to Ecology	9/30/98	9/30/98	On schedule
M-43-12	Start construction for upgrades in the first tank farm	6/30/99	6/28/99	Planned start of construction for AW Tank Farm - on schedule
M-43-13	Start construction for upgrades in the second tank farm	6/30/00	6/08/00	Planned start of construction for SY Tank Farm - on schedule
M-43-14	Start construction for upgrades in the third tank farm	3/31/01	3/28/01	Planned start of construction for AZ Tank Farm - on schedule
M-43-15	Start construction for upgrades in the fourth tank farm	3/31/02	3/29/02	Planned start of construction for AN Tank Farm - on schedule
M-43-16	Start construction for upgrades in the fifth tank farm	6/30/03	8/30/02	Planned start of construction for AP Tank Farm - on schedule

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# **ISSUES**

**Out year funding profile:**

**Working within DOE**

**Project Manager's Meeting: TWRS Single and Double Shell Tanks  
TPA Milestones M-40, M-41, M-43, M-44, M-45, M-46  
July 24, 1996**

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**ADMINISTRATIVE RECORD:**

**Double Shell Tanks S-2-3**

**Single Shell Tanks S-2-4**

**Tank Waste Remediation System**

**TPA Milestones M-40, M-41, M-42, M-43, M-44, M-45 [Care of EDMC, RFSH (H6-08)]**

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