0072753

FH-0700463

Meeting Minutes Transmittal/Approval
Unit Managers' Meeting
200 Area Groundwater and Source Operable Units
1200 Jadwin Avenue, Richland, Washington
February 15, 2007

APPROVAL: _____ Date: 3-29-07
Larry Romine, 200 Area Unit Manager, DOE/RL

APPROVAL: _____ Date: 3-29-07
Arlene Tortoso, 200 Area ~~Assistant~~ Unit Manager, DOE/RL

APPROVAL: _____ Date: 4/4/07
Craig Cameron, 200 Area Unit Manager, EPA

APPROVAL: _____ Date: 4/9/2007
John Price, 200 Area Unit Manager, Ecology

RECEIVED
APR 25 2007
EDMC

Minutes of the 200 Area Unit Managers' Meeting of February 15, 2007 are attached. Minutes are comprised of the following:

Attachment 1	Agenda
Attachment 2	Attendance Record
Attachment 3	Agreements and Issues List
Attachment 4	Action Item List
Attachment 5	Groundwater Operable Units Status
Attachment 6	200-UP-1 Rebound Study, Technetium-99
Attachment 7	200-UP-1 Rebound Study, Uranium
Attachment 8	Tc-99 concentrations in extraction wells 299-W15-44 and 299-W15-765
Attachment 9	Tc-99 concentrations in monitoring well 299-W15-763
Attachment 10	New ZP-1 well DD (C5101, 299-W11-86)
Attachment 11	Comparison of Maximum Carbon Tetrachloride Rebound Concentrations Monitored at 200-PW-1 Soil Vapor Extraction Sites FY 2003 – FY 2007
Attachment 12	Location of Proposed Wells Associated with 200-BP-5 Operable Unit
Attachment 13	Surface Geophysical Exploration Investigation Area
Attachment 14	HRR Field Work
Attachment 15	Source Operable Units and Facilities Status
Attachment 16	Well Decommissioning Lists

200 AREA UNIT MANAGERS' MEETING
DRAFT AGENDA

1200 Jadwin/Rm 1-C-1
February 15, 2007

GROUNDWATER AND SOURCE OPERABLE UNITS (8:30-9:45)

- Status Review of OUs
- Outstanding Action Items/Issues

200-UW-1, 200-CW-3 AND FACILITIES (9:45-10:15)

- Status Review
- Outstanding Action Items/Issues

200 Area Unit Managers Status Meeting
February 15, 2007

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Mark Byrnes	FH	ZP-1 / PW-1 Task Lead	373-3996
Ann Shattuck	FH	Task Lead PW-1 & MW-1	376-8756
Greg Thomas	FH	BP-5	373-3907
Dennis Faulk	EPA		
Arlene Tortoso	DOE	200 Area UM	373-9631
GLORIA CUMMINS	FH	PO-1	372-2484
Rod Gelos	EPA		
Tom Watson	FGG	Mgr.	376-5450
Craig Cameron	EPA		376-8665
Dave Ek	FH	200-W GW	373-4457
Kevin Leary	DOE-RL	UP-1 / UW-1	373-7285
R Bill Bo	FH	TBD	373-3235
JD Willis	FH		372-3553
Ron Brunke	FH	PW-2 UP-1 CS / CW-1	376 2665
Virginia Rohay	FH	200-PW-1	373-3803
Jon Winterhalder	FH		372-8144
MIKE Hickey	FH	IS-1 CW-5	372-3092
John Price	ECY	UM	372-7921
Jeff Vanni	ECY		372-7930
Bob Bryce	PNNL		

200 Area Unit Managers Status Meeting
February 15, 2007

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PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Larry Romine	DOE-RL	200 A	376 4747
Bryan Foley	DOE-RL	200A	376-7087
Jim Bennett	FH	1C Cribs	6-0002
Zelma Jackson	ECY	200 GrdWtr	372-7910
Julie Robertson	FH D&D	Canyons	376-8162

Issue Resolution Meeting
Agreements and Issues List
February 15, 2007
200 Area Unit Managers' Meeting

Agreement: Discharge of Purgewater to the ground (PO-1 OU)

John Price, Ecology, approved a request to discharge purgewater from well 699-20-E120 to the ground. A similar request was approved last year because of the difficulty in gaining purgewater truck access to this well location in the 600 Area dunes. This well is not located near a waste site, and the water chemistry criteria will be met.

Issue: Moving forward on the permit modification, not on a ROD (PO-1 OU)

Issue Statement: Ecology is moving forward on the permit modification. Ecology's intent is to include a post-closure monitoring plan. If RL is not in agreement, this issue should be elevated to the IAMIT.

Issue Action: RL to determine regulatory position and elevate if needed.

200 Area Unit Managers' Meeting
OPEN ACTION ITEMS & TRACKING

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Date Complete	Status
78	Present IS-1 DQO briefing to HAB. RL to request time slot on HAB River & Plateau Committee for this briefing.	DOE-Leary	All	8/23/06	9/21/06	4/15/07		November date could not be met. Due date pushed 4 months per K. Leary.
80	Send report from Remedial Action Decision Making panel (Tom Fogwell)	FH-Byrnes	ECY/EPA Price/Goswami/Cameron	10/18/06	11/16/06	3/30/07		Panel requested more time to complete their report.
86	Confirm number of boreholes required for BC Cribs. How many (3 or 5) are identified in the baseline?	DOE-Foley	ECY/EPA	1/17/07	2/15/07		2/15/07	CLOSED. Three of the 5 wells are in the baseline and 5 are identified in the DQO and will be in the SAP. A revision to the baseline will therefore include all 5 wells.

Attachment 4

200-UP-1, 200-ZP-1, AND 200-PW-1 GROUNDWATER OPERABLE UNITS

February 15, 2007

GROUNDWATER OPERABLE UNITS STATUS

200-UP-1 OU

- Rebound Study:
  - Tc-99 and uranium concentrations are still below the interim RAOs of 9,000 pCi/L and 480 µg/L respectively **(Attachments 6 and 7)**.
  - Uranium concentrations in well 299-W19-37 have now risen above 300 ug/L.
  - Ecology is working on an Explanation of Significant Difference (ESD) for the UP-1 interim ROD.
- RI/FS Work Plan:
  - Six of 12 new 200-UP-1 wells (UP1, UP2, UP3, UP4, UP5, and UP11) required by the RI/FS Work Plan have been installed. The remaining six are scheduled for early FY2008.
- Discussion: John Price (Ecology) noted that he will be elevating the need to install the last six 200-UP-1 groundwater wells in FY2007 at the next IAMIT Meeting.

200-ZP-1 OU

- Remediation Treatment Status:
  - Between October 1, 2006 and February 4, 2007 the 200-ZP-1 pump-and-treat system average pumping rate was approximately 261 gpm.
  - All 10 200-ZP-1 extraction wells are currently on line pumping at approximately 270 gpm. The pump in extraction well #4 is in the process of being replaced to boost the pumping rate by 10 or more gpm.
  - **Attachments 8 and 9** show the most recent Tc-99 concentrations in extraction wells 299-W15-765 and 299-W15-44, and nearby monitoring well 299-W15-763. The average Tc-99 concentration of the mixed extraction water entering the ZP-1 treatment building is approximately 45% of the MCL of 900 pCi/L.
  - The Treatability Test Plan for Tc-99 removal from extraction wells W15-44 and W15-765 is coming out of final editing today.
  - Discussion: Dennis Faulk (EPA) asked that responses to his comments be attached to the Treatability Test Plan when it is delivered.
  - Discussion: The Treatability Test Plan for Tc-99 removal can be used to document that there will not be double containment for the pipelines used to support the treatability test. This precedent has been set by the last four 200-ZP-1 wells that were put online in FY2005. Ecology will have to sign off on the plan to approve the use of a single walled pipe.
  - We plan to perform daily leak detection inspections of the pipelines.

Containment will be provided for minor leaks and drips.
- MSE's design of the Purolite resin column is complete and skid construction has started. We are currently looking at an early April hookup.
- Mark Byrnes contacted ETF to see if they have the capability to regenerate the Purolite resin columns. They will be getting back to him shortly.
- Arlene Tortoso (DOE-RL) requested that trend data for carbon tetrachloride in well 299-W15-6 be presented next month.

- New Well Status:
  - The re-drilling of New ZP-1 well DD (C5101, 299-W11-86) **(Attachment 10)** is currently at 278 ft.

- RI/FS Status:
  - FS Report:
    - The 2nd Stakeholder Workshop was held February 7-8, 2007.
    - Currently completing the detailed analysis of alternatives.
    - Detailed cost estimating has started.
    - Baseline risk assessment is ongoing.
    - Groundwater analysis is ongoing.

- Tc-99 Investigation Status:
  - Drilling has started on the T-4 well. They are currently at a depth of approximately 197 ft bgs. Drill bit could not be removed as it got locked up with the casing. They are having trouble pulling the casing out.
  - The draft DQO summary report (WMP-28389) was issued to DOE-RL for stakeholder review.

200-PW-1 (200-ZP-2) OU

- Soil Vapor Extraction System (SVE):
  - The SVE system is shut down for the winter.
- The passive system remains operational.

- Monthly monitoring results for November and December 2006 are presented in **Attachment 11.**

200-PO-1 GROUNDWATER OPERABLE UNIT

February 15, 2007

GROUNDWATER OPERABLE UNIT STATUS

200-PO-1 OU

- DQO

  The DQO process continued for a 200-PO-1 OU investigation effort. Decision Makers' meetings were held January 29 and February 8 to review preliminary data input needs to include in the Draft RI/FS Work Plan.

- SAP

  Work started in January on a draft 200-PO-1 Characterization SAP to support the RI/FS Work Plan development. This SAP along with the existing Monitoring SAP (DOE/RL-2003-04 Rev.1) will be included in the Draft A Work Plan due to Ecology September 30, 2007.

- WORK PLAN

  Work continued on drafting the 200-PO-1 Draft A Work Plan.
  Ecology is moving forward on the Site-wide permit renewal. Ecology's intent is to use the 200-PO-1 SAP as the post-closure monitoring plan for the PUREX Cribs and 200-CS-1 TSDs that lie in 200-E Area. If RL is not in agreement, this issue should be elevated to the IAMIT. RL will determine regulatory position and elevate if needed.

- INTEGRATION (no change)

  The 216-A-4 well being drilled by waste sites has reached groundwater and will be completed as a 200-PO-1 OU monitoring well.

200-BP-5 GROUNDWATER OPERABLE UNIT

February 15, 2007

GROUNDWATER OPERABLE UNIT STATUS

Analytical Status for I and J Wells: (See Figure 1, **Attachment 12**)
"I" well (699-48-50B):

1) Elevated uranium-238 porewater results, completed by PNNL, were reported in the silty sand to clay-silt sediments approximately 6 to 10 feet above the basalt.
2) Groundwater contact with these sediments would have been from 1960-1992 based on groundwater elevations at 699-49-57A.
3) Fluor concludes that this indicates that either naturally occurring placer deposits are the reason for the elevated uranium or a uranium plume may have been present during a higher groundwater elevation time period, 1960 to 1992.
4) Porewater concentrations were reported between 4.69 ug/L and 86.57 ug/L.
5) Moisture content for these intervals ranged from 24.79 to 25.96%.
6) Based on moisture and porewater concentrations infiltration could average up to 30 ug/L.
7) Isotopic groundwater uranium concentrations were reported at the following:
    a. U-233/234 – 1.3 pCi/L
    b. U-235 – 0.083 pCi/L
    c. U-238 – 0.88 pCi/L
8) Background concentrations for uranium isotopes are as follows based on DOE/RL-92-23.
    a. U-233/234 – 1.54 pCi/L
    b. U-235 – 0.24 pCi/L
    c. U-238 – 1.64 pCi/L

Discussion: Kevin Leary, RL, suggested that colloid transport should be investigated. At Yucca Mountain the Pu was found to be transported by colloids. There could be a similar situation happening with U at Hanford.

"J" well (699-50-56):

1) One elevated uranium-238 porewater result was reported in a silty sand approximately 18 feet above the aquifer. This elevation is 8 feet higher than any historical groundwater elevation, 1950 to present.
2) Uranium-238 porewater results, in the sediment 10 feet above the aquifer, ranged between 2.71 ug/L and 7.17 ug/L.
3) Moisture content for these intervals ranged from 2.52% to 9.48%.
4) Based on moisture and porewater concentrations approximately 1.7 gallons of porewater at a concentration of 5.43 ug/L is present in the sediment ten feet above the aquifer.
5) Isotopic groundwater uranium concentrations were reported at the following:

a. U-233/234 – 0.640 pCi/L
b. U-235 – Non-detect <0.027 pCi/L
c. U-238 – 0.53 pCi/L

"F" well: Drilling at F well has advanced to 212.5 ft bgs as of Jan 12th. Twenty-eight continuous split spoon samples have been collected from four intervals: 60-85, 105-120, 160-170 and 185-195. Grab samples have been collected from 60' bgs to current depth every 2.5 feet and are planned for the remainder of the borehole at this same increment. Currently no field instruments have detected contamination. At the completion of the borehole 5 split spoons were planned for analysis from the various low permeability intervals for detailed physical property and geochemical analysis. This information will be used as a baseline standard for low permeability comparisons with future analysis from contaminated sites and provided for model development.

DQO: WMP-28945 Rev. 0, Released February 8th, 2007.

Work Plan: The work plan is on schedule. The Decisional Draft was completed Friday February 9th. Comments are being incorporated for FH clearance process February 28th through March 6th.

HRR: Field work is on going. (See Figure 2, **Attachment 13**)
Integration between FH and CHG has been successful.
Currently installing remote electrodes. 8400 electrodes are being placed throughout the B/BX/BY WMA and adjacent waste sites.
Well to well surveys is planned for late March which will provide information for the aquifer.

Discussion: Jean Vanni, Ecology, requested that she receive a map showing where the Ecology waste sites are in relation to HRR lines.

Groundwater Annual Report: Comments have been incorporated and clearance is scheduled in March.

Groundwater Results: Significant increases in Tc-99 concentrations have been reported in the later half of FY06 in four wells 299-E33-16, 299-E33-18 and 299-E33-337 (see Figure 3, **Attachment 14**). The table below reports the Tc-99 concentrations over the past year.

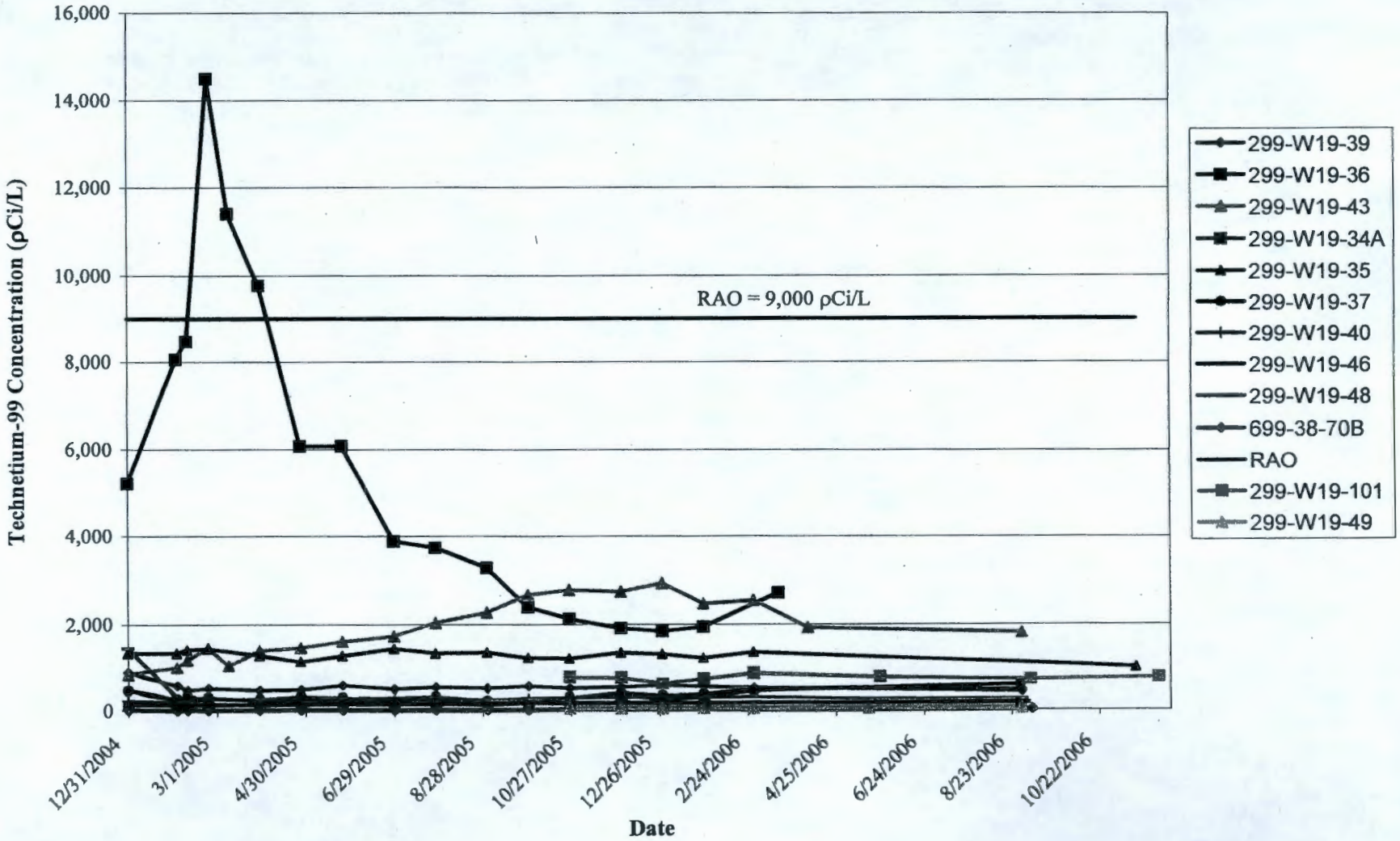
Tc-99 concentrations in pCi/L

Wells	Dec 2005	Feb 2006	May 2006	Aug 2006	Nov 2006
E33-38	14,600	16,400	15,800	22,000	26,800
E33-16	4310	4,210	5,510	11,800	14,100
E33-18	5,480	6,640	6,000	14,000	13,300
E33-26	5,260	6,170	6,990		7,630
E33-44	9,980	10,200	10,200		11,000
E33-337	171	199	66.30	419	1,270
E33-34	9,530		11,000		

Discussion: It was suggested that historic well information (for wells I & J) should be researched to check for elevated amounts of cyanide in the late 1980s.

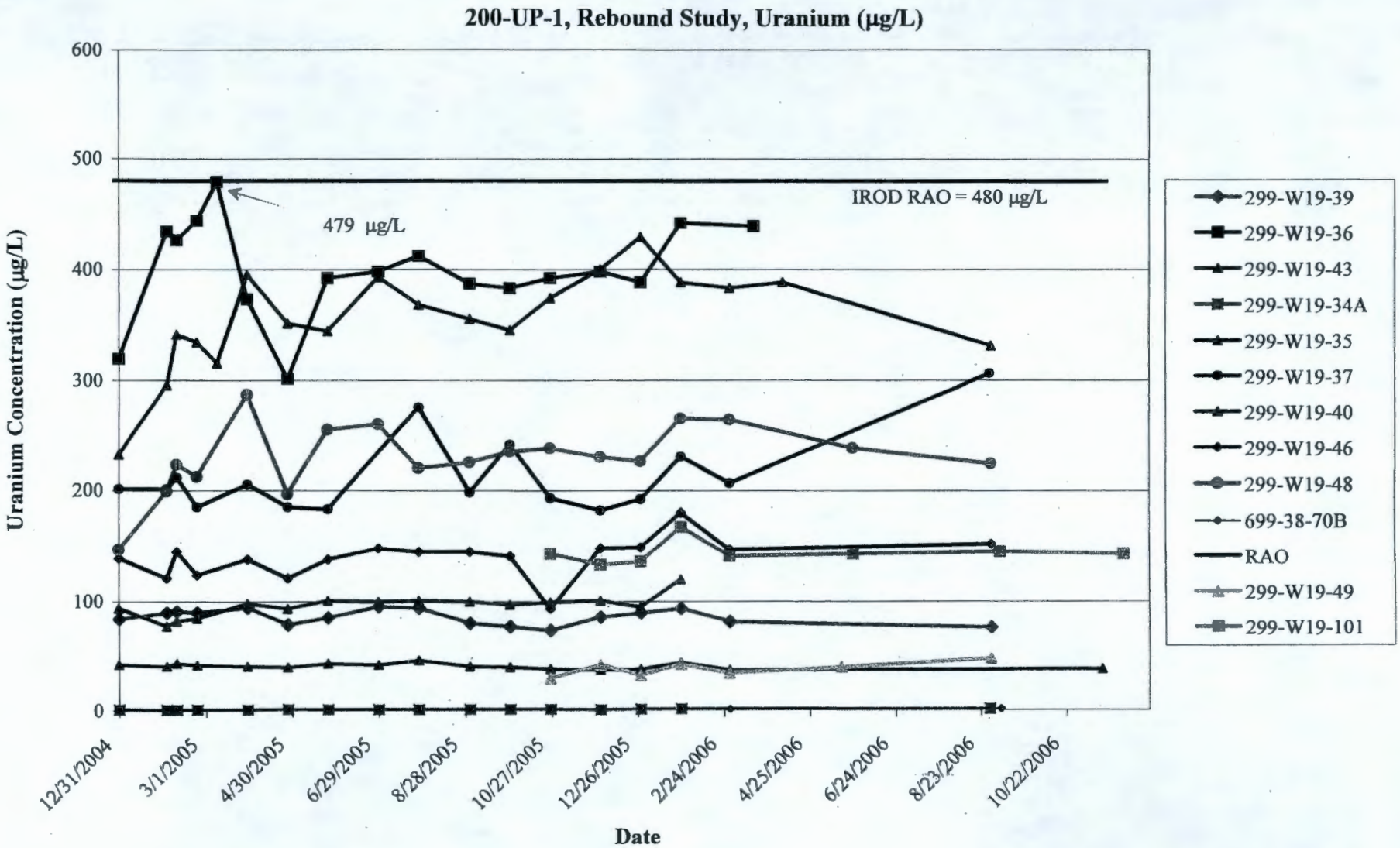
Rod Lobos, EPA, wants DOE to look into using the colloidal boroscope method to determine groundwater flow direction.

200-UP-1, Rebound Study, Technetium-99 (ρCi/L)



Attachment 1

Attachment 6

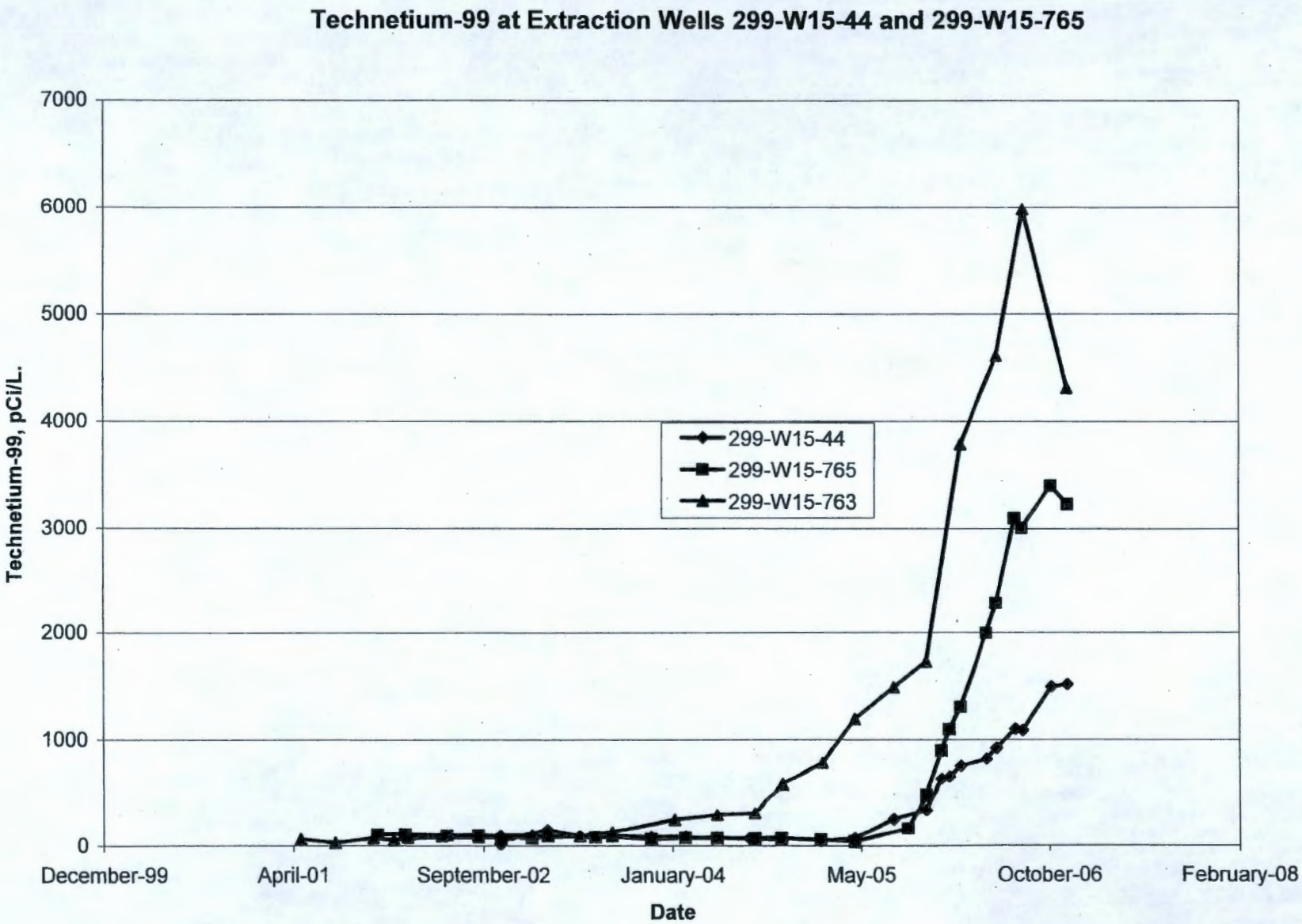


Attachment 2

Attachment 7

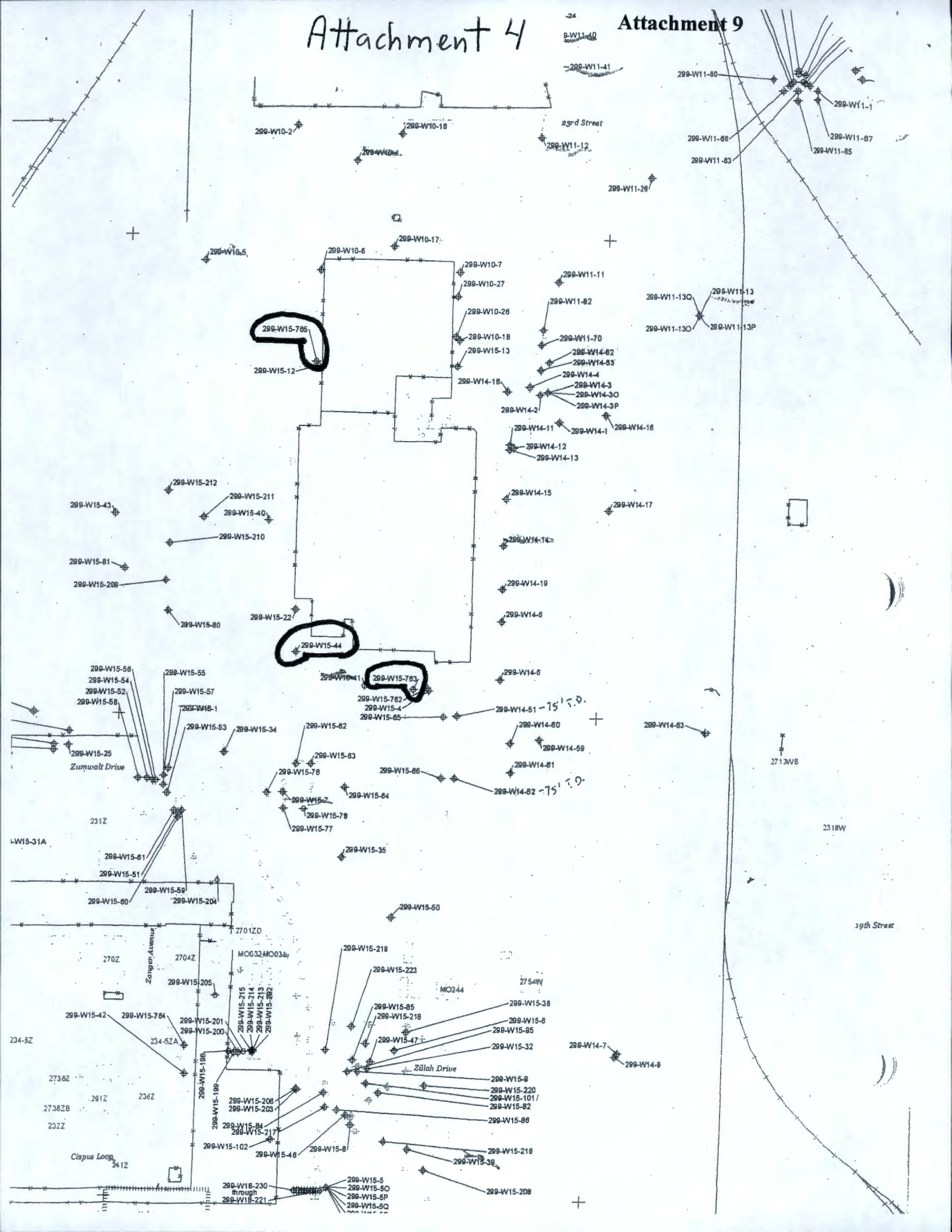
Attachment 3

Attachment 8



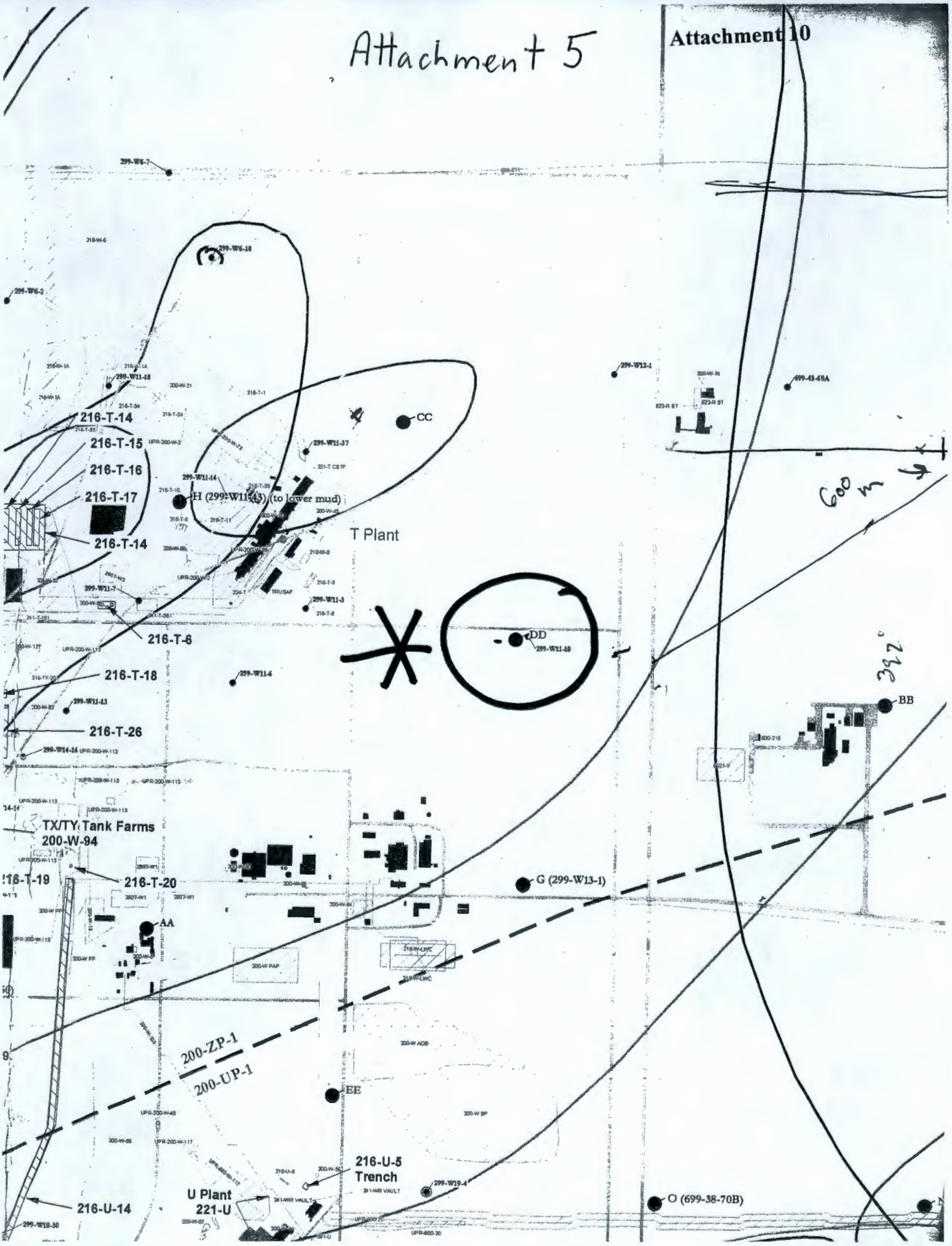
Attachment 4

Attachment 9



Attachment 5

Attachment 10



Comparison of Maximum Carbon Tetrachloride Rebound Concentrations
Monitored at 200-PW-1 Soil Vapor Extraction Sites
FY 2003 - FY 2007

Attachment 11, Figure 1

200-PW-1		July 2002 (Z-9) or October 2003 (Z-1A) - March 2004		July 2002 (Z-9) or April 2004 (Z-1A) - September 2004		October 2004 - June 2005		July 2005 - June 2006		July 2006 - January 2007	
Location (Well or Probe) /feet bgs	Site	Maximum Rebound Carbon Tetrachloride (ppmv)	months* of rebound	Maximum Rebound Carbon Tetrachloride (ppmv)	months* of rebound	Maximum Rebound Carbon Tetrachloride (ppmv)	months* of rebound	Maximum Rebound Carbon Tetrachloride (ppmv)	months* of rebound	Maximum Rebound Carbon Tetrachloride (ppmv)	months* of rebound
79-03/ 5 ft	Z-18										
79-06/ 5 ft	Z-1A										
79-11/ 5 ft	Z-1A										
86-05/ 5 ft	Z-9										
86-05-01/ 5 ft	Z-9										
86-06/ 5 ft	Z-9										
87-05/ 5 ft	Z-1A										
87-09/ 5 ft	Z-1A										
94-02/ 5 ft	Z-9										
95-11/ 5 ft	Z-9										
95-12/ 5 ft	Z-9										
95-14/ 5 ft	Z-9										
CPT-13A/ 9 ft	Z-1A										
CPT-16/ 10 ft	Z-9										
CPT-17/ 10 ft	Z-9	9.0	21	9.9	27	11.4	5	2.5	12	1.4	4
CPT-18/ 15 ft	Z-9	2.4	21	2.5	27	3.1	5	0	12		
CPT-4A/ 25 ft	Z-1A										
CPT-27/ 15 ft	Z-9									0	4
CPT-4E/ 25 ft	Z-1A			2.4	0	2.4	9	2.4	0	0	3
CPT-16/ 25 ft	Z-9	2.6	21	3.6	27	4.4	5	1.6	12	1.0	4
CPT-31/ 25 ft	Z-12										
CPT-32/ 25 ft	Z-1A	5.9	6			8.6	9	6.4	6	3.4	7
CPT-30/ 28 ft	Z-18	0	6			1.6	9	1.2	6	0	3
CPT-13A/ 30 ft	Z-1A	1.8	6	1.9	0	8.3	9	4.1	0	5.8	7
CPT-7A/ 32 ft	Z-1A	9.5	6	1.9	0	4.4	9	3.8	0	3.2	7
CPT-27/ 33 ft	Z-9	2.7	21	2.7	27	8.4	5	1.8	12		
CPT-1A/ 35 ft	Z-12	18.3	6	18.0	0	14.0	9	17.2	0	13.4	7
CPT-18/ 35 ft	Z-9									0	4
CPT-28/ 40 ft	Z-9					5.4	0			5.5	0
CPT-33/ 40 ft	Z-18					3.9	9			1.6	3
CPT-34/ 40 ft	Z-18			1.8	0	3.0	9	2.0	0	1.3	3
CPT-21A/ 45 ft	Z-9					7.9	0				
CPT-30/ 48 ft	Z-18									4.2	7
W15-220ST/ 52 ft	Z-9										
CPT-9A/ 60 ft	Z-9	35.9	21	35.9	27	32.4	5	29.2	12	16.2	4
CPT-28/ 60 ft	Z-9					68.3	0				
CPT-C3872 / 63 ft	Z-1A					15.5	9	9.9	6	7.8	7
CPT-16/ 65 ft	Z-9			4.2	27	6.7	5	5.6	0		
CPT-21A/ 65 ft	Z-9	150	21	150	27	170	0	167	12	153	4
CPT-1A/ 68 ft	Z-12					13.7	9			13.2	3
CPT-30/ 68 ft	Z-18										
CPT-13A/ 70 ft	Z-1A										
CPT-24/ 70 ft	Z-9			9.1	27			5.2	12		
CPT-32/ 70 ft	Z-1A					5.5	9			4.3	3
W15-219SST/ 70 ft	Z-9			5.7	22						
CPT-4A/ 75 ft	Z-1A										
CPT-18/ 75 ft	Z-9			8.3	27			4.3	12		
CPT-31/ 76 ft	Z-12										
CPT-33/ 80 ft	Z-18										
W15-82/ 83 ft	Z-9	85.8	21	85.8	27	95.8	5	8.1	12	2.3	4
CPT-21A/ 86 ft	Z-9	244	21	244	27	209	5	223	12	194	4
CPT-34/ 86 ft	Z-18										
W15-95U/ 86 ft	Z-9										
W15-218SST/ 86 ft	Z-9										
CPT-28/ 87 ft	Z-9	258	21	258	27	246	5	245	12	216	4
CPT-4B/ 90 ft	Z-1A										
CPT-1A/ 91 ft	Z-12										
CPT-4A/ 91 ft	Z-1A										
CPT-9A/ 91 ft	Z-9										
W15-85/ 91 ft	Z-9										
W18-252SST/ 100	Z-1A										
W18-152/ 101 ft	Z-12	12.4	6			16.0	9	16.2	6	15.1	7
W15-8U/ 103 ft	Z-9							10.4	12	6.1	4
CPT-4E/ 103 ft	Z-1A										
W18-167/ 106 ft	Z-1A	266	6			196	9	174	6	3.0	7
CPT-4F/ 109 ft	Z-1A					11.9	9			2.9	3
W18-165/ 109 ft	Z-1A	205	6			35.2	9	394	6	2.5	7
W15-217/ 114 ft	Z-9	458	21	467	27	374	5	19.7	12	7.0	4
CPT-24/ 118 ft	Z-9			15.3	27			23.9	12		
W15-220SST/ 118	Z-9			26.0	27			25.2	12		
W18-158L/ 120 ft	Z-1A										
W15-219SST/ 130	Z-9			0	22						
W18-249/ 130 ft	Z-18	41.0	6			64.9	9	24.1	6	19.7	7
W18-248/ 131 ft	Z-1A	180	6			249	9	67.0	6	52.7	7
W15-95L/ 144 ft	Z-9	40.3	21	40.3	27	26.7	5	25.7	12	16.9	4
W15-219SST/ 155	Z-9			9.5	22						
W15-220L/ 163 ft	Z-9			7.5	27			13.2	12		
W15-219L/ 175 ft	Z-9			23.0	27			12.2	12		
W15-9L/ 176 ft	Z-9	13.1	21	13.1	27	2.1	5	5.4	12	4.7	4
W15-84L/ 180 ft	Z-9	25.9	21	25.9	27	23.0	5	14.0	12		
W15-6L/ 182 ft	Z-9										
W15-220SST/ 185	Z-9										
W18-7/ 197 ft	Z-1A										
W18-12/ 198 ft	Z-18										
W18-6L/ 208 ft	Z-1A										
W15-46/ 217 ft	Z-9							4.7	12	4.0	4

* - based on location (Z-1A/18/12 or Z-9) of monitoring point; specific points may be beyond SVE zone of influence during particular operating configurations
- Z-18 and Z-12 wells off-line Oct 96 - Apr 98
- CPT-1A, CPT-9A, and possibly CPT-7A appeared to be beyond SVE zone of influence in Oct 96 based on differential pressure (BHI-01105, p. 6-1)
- CPT-9A, CPT-21A, CPT-28 beyond SVE zone of influence in May 96 based on CCl4 concentrations and airflow modeling based on measured vacuums (BHI-01105, p. 6-1)

Carbon Tetrachloride Rebound Concentrations
Monitored at 200-PW-1 Soil Vapor Extraction Sites
January 2006 - January 2007

200-PW-1 Location (Well or Probe) /feet bgs	Site	01/26/2006 CCl4 (ppmv)	02/23/2006 CCl4 (ppmv)	03/28/2006 CCl4 (ppmv)	04/28/2006 CCl4 (ppmv)	05/26/2006 CCl4 (ppmv)	06/29/2006 CCl4 (ppmv)	07/26/2006 CCl4 (ppmv)	08/30/2006 CCl4 (ppmv)	09/26/2006 CCl4 (ppmv)	10/25/2006 CCl4 (ppmv)	11/30/2006 CCl4 (ppmv)	12/19/2006 CCl4 (ppmv)	01/31/2007 CCl4 (ppmv)
CPT-17/ 10 ft	Z-9	1.3	1.5	1.7	2.0	2.2	2.3				1.2	1.2	1.2	1.4
CPT-18/ 15 ft	Z-9	0	0	0	0	0	0							
CPT-27/ 15 ft	Z-9										0	0	0	0
CPT-4E/ 25 ft	Z-1A				2.4	1.7	0	0	0	0				
CPT-16/ 25 ft	Z-9	1.1	1.1	1.1	1.0	0	0				0	1.0	0	0
CPT-32/ 25 ft	Z-1A	4.0	4.8	6.4				0	0	0	0	1.2	2.1	3.4
CPT-30/ 28 ft	Z-1A	0	0	0				0	0	0				
CPT-13A/ 30 ft	Z-1A	3.6	3.5	3.3	3.6	3.8	3.3	2.4	2.5	2.4	3.3	2.9	5.8	1.6
CPT-7A/ 32 ft	Z-1A	2.8	3.3	3.8	2.4	2.4	1.8	2.0	1.9	1.2	1.9	2.5	2.6	3.2
CPT-27/ 33 ft	Z-9	0	0	0	0	0	0							
CPT-1A/ 35 ft	Z-12	7.7	6.0	7.4	6.2	8.9	13.2	11.0	13.4	10.2	10.0	4.6	5.1	4.4
CPT-18/ 35 ft	Z-9										0	0	0	0
CPT-28/ 40 ft	Z-9							5.5	4.3	4.8				
CPT-33/ 40 ft	Z-18							0	1.3	1.6				
CPT-34/ 40 ft	Z-18				1.3	1.7	1.2	0	1.3	1.3				
CPT-21A/ 45 ft	Z-9													
CPT-30/ 48 ft	Z-9										0	4.2	3.1	2.9
CPT-9A/ 50 ft	Z-9	48.1	50.4	46.1	46.9	49.0	39.1	32.8	40.7	43.3	30.6	42.6	42.0	43.7
CPT-9A/ 60 ft	Z-9	17.4	11.4	16.0	17.3	24.4	13.3	12.8	9.8	15.7	14.2	16.2	13.1	13.2
CPT-28/ 60 ft	Z-9													
CPT-C3872 / 63 ft	Z-1A	5.1	6.3	9.9				2.1	2.2	2.4	3.5	5.5	6.1	7.8
CPT-9A/ 64 ft	Z-9	33.4	36.2	36.6	33.1	36.4	33.1	33.8	33.8	33.9	28.1	32.3	28.9	16.7
CPT-16/ 65 ft	Z-9				5.3	5.6	4.6							
CPT-21A/ 65 ft	Z-9	139	146	145	139	160	137	153	132	137	123	120	123	127
CPT-1A/ 68 ft	Z-12							13.2	12.5	5.6				
CPT-24/ 70 ft	Z-9				4.4	5.2	4.3							
CPT-32/ 70 ft	Z-1A							4.2	4.3	3.5				
W15-219SST/ 70 ft	Z-9													
CPT-18/ 75 ft	Z-9				3.4	3.7	4.3							
W15-82/ 83 ft	Z-9	---(m)	---(m)	---(m)	2.2	6.8	0				0	0	0	2.3
CPT-21A/ 86 ft	Z-9	186	194	201	192	204	165	179	171	194	159	169	164	189
CPT-28/ 87 ft	Z-9	213	226	217	217	223	174	180	185	216	181	202	196	0
W18-152/ 101 ft	Z-12	15.4	15.2	16.2				10.8	12.5	13.3	13.0	14.4	13.8	15.1
W15-8U/ 103 ft	Z-9	3.1	4.5	1.3	1.5	2.8	5.5				2.4	6.1	1.2	4.6
W18-167/ 106 ft	Z-1A	---(m)	---(m)	---(m)				0	0	0	0	0	0	3.0
CPT-4F/ 109 ft	Z-1A							1.2	2.9	0				
W18-165/ 109 ft	Z-1A	161	160	164				---(q)	0	0	0	0	0	2.5
W15-217/ 114 ft	Z-9	11.5	19.7	12.1	1.0	8.6	0				0	0	0	7.0
CPT-24/ 118 ft	Z-9				22.9	23.9	16.0							
W15-220SST/ 118 ft	Z-9				17.9	22.0	21.5							
W18-249/ 130 ft	Z-18	12.4	17.1	24.1				4.6	19.4	18.1	16.8	18.4	8.8	19.7
W15-219SST/ 130 ft	Z-9													
W18-248/ 131 ft	Z-1A	---(m)	---(m)	---(m)				---(m)	27.2	43.0	42.1	45.3	30.7	52.7
W15-95L/ 144 ft	Z-9	19.9	22.6	20.6	17.8	17.8	25.7				10.0	16.2	15.3	16.9
W15-219SST/ 155 ft	Z-9													
W15-220L/ 163 ft	Z-9				2.4	9.3	7.3							
W15-219L/ 175 ft	Z-9				4.5	12.2	11.7							
W15-9L/ 176 ft	Z-9	4.0	5.4	3.5	1.5	2.4	0				4.7	2.3	2.2	3.5
W15-84L/ 180 ft	Z-9				4.2	14.0	4.1							
W15-46/ 217 ft	Z-9	4.7	---(p)	2.1	0	2.6	0				0	0	0	4.0

(m) Unable to sample; well in use by Vista Engineering
(p) Unable to pull representative sample.
(q) Unable to sample; well in use for geophysical logging

Attachment 11, Figure 2

Carbon Tetrachloride Concentrations
Monitored at 200-PW-1 Passive Soil Vapor Extraction Wells
January 2006 - January 2007

200-PW-1													
	1/27/2006	2/28/2006	3/27/2006	4/28/2006	5/26/2006	6/29/2006	7/26/2006	8/29/2006	9/26/2006	10/26/2006	11/28/2006	12/20/2006	1/30/2007
Location (Well or Probe) /feet bgs	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)
W18-6L/ 208 ft	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	15.8	3.7	1.4	0	4.8
W18-7/ 197 ft	15.8	16.2	15.3	33.8	20.3	5.9	11.0	15.3	0	5.6	6.0	2.1	7.8
W18-10L/ 183 ft	12.1	13.0	3.9	14.1	11.4	11.2	10.0	12.7	11.7	0	0	2.0	12.6
W18-11L/ 199 ft	7.6	9.0	0	5.4	7.2	1.8	3.0	8.4	1.3	0	0	0	4.5
W18-12/ 198 ft	4.9	9.4	1.3	0	2.4	0	0	4.8	0	0	0	0	1.3
W18-246L/ 170 ft	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	3.7	1.7	0	0	2.2
W18-247L/ 167 ft	5.1	7.6	0	3.0	1.8	1.3	0	5.7	1.0	0	0	0	1.4
W18-252L/ 175 ft	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)	---(b)
	(b) disconnected for use by Vista Engineering for cross-well seismic investigation												

Attachment 11, Figure 3

Figure 1. Locations of Proposed Wells Associated with 200-BP-5 Operable Unit.

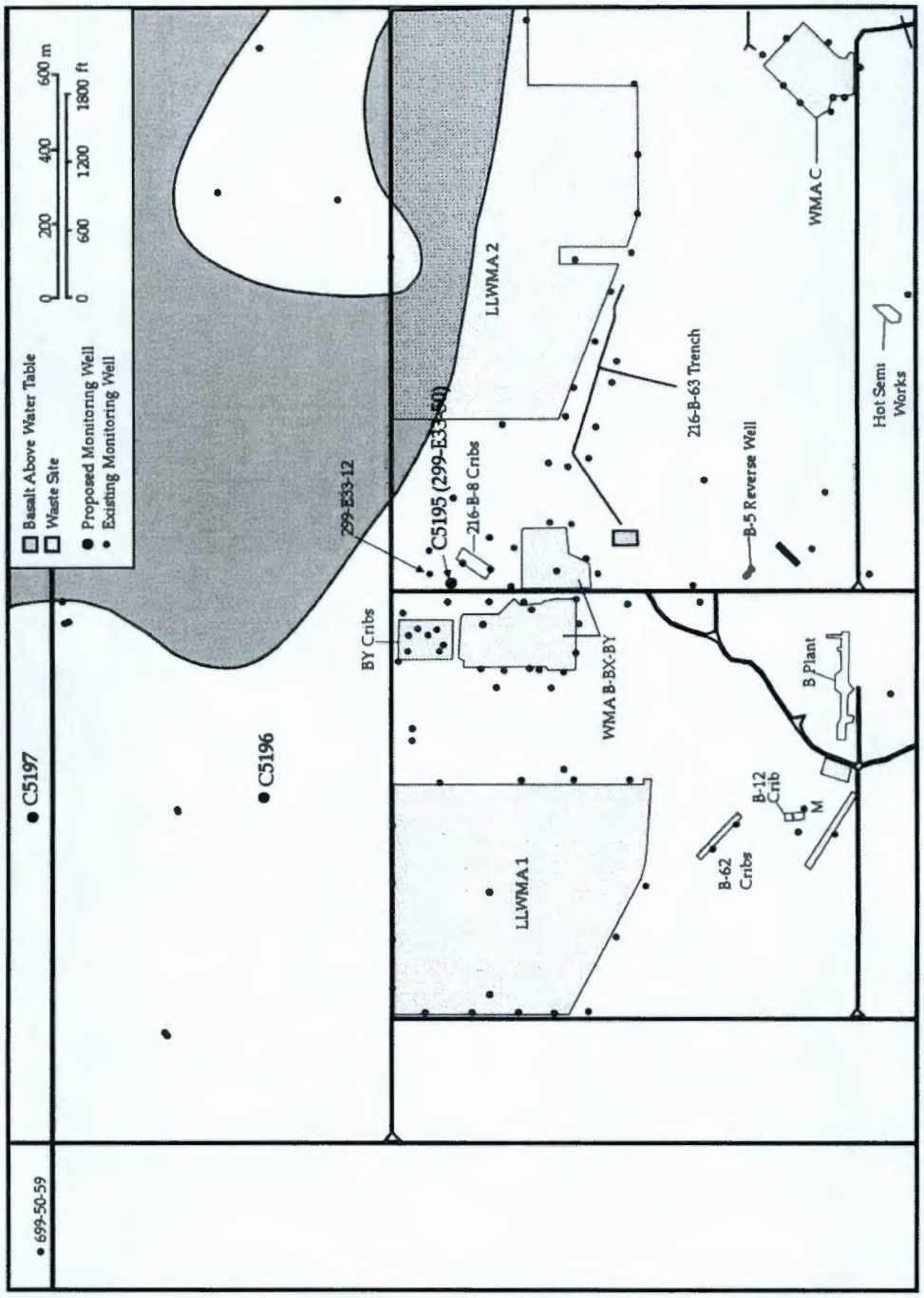


Figure 2

Attachment 13

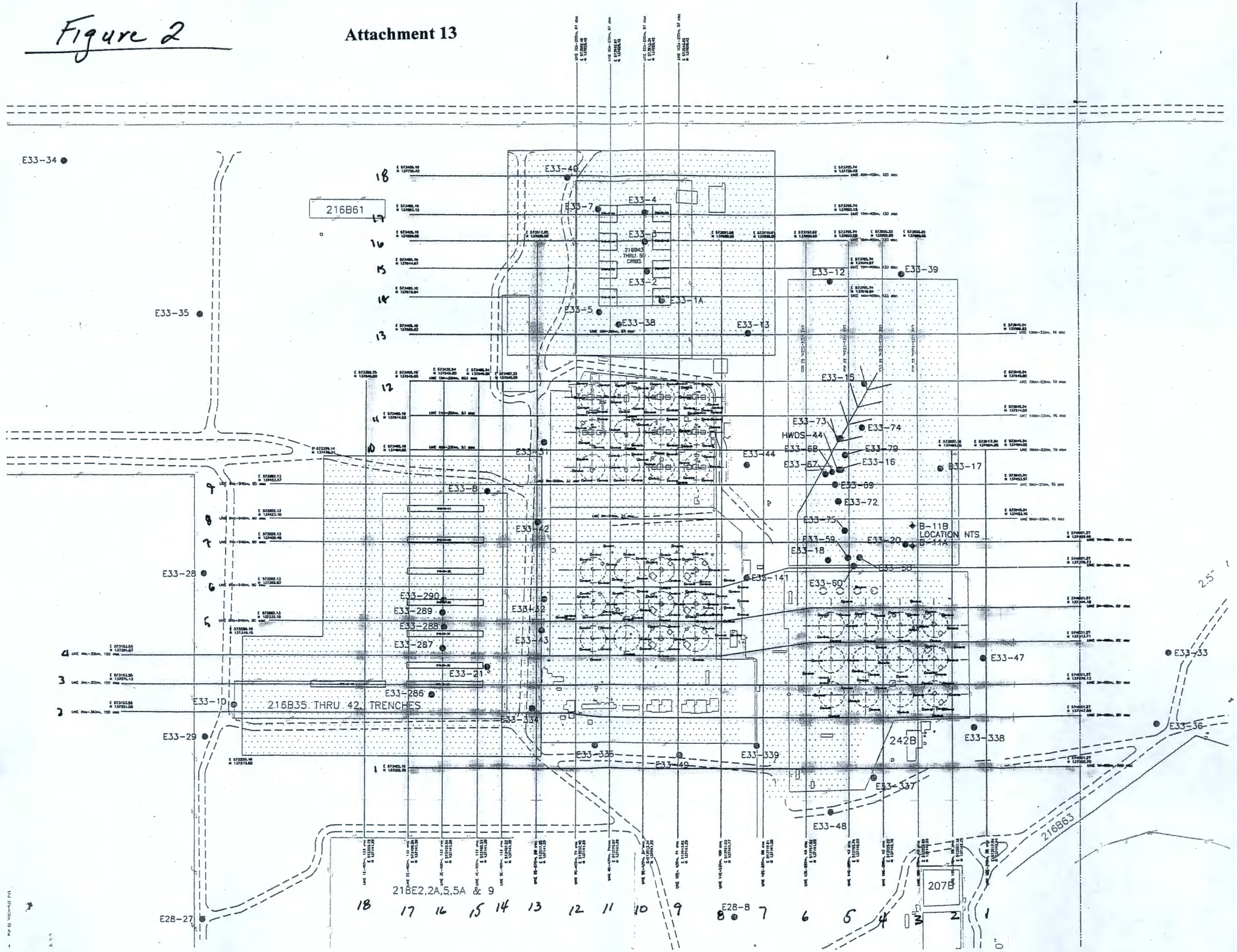
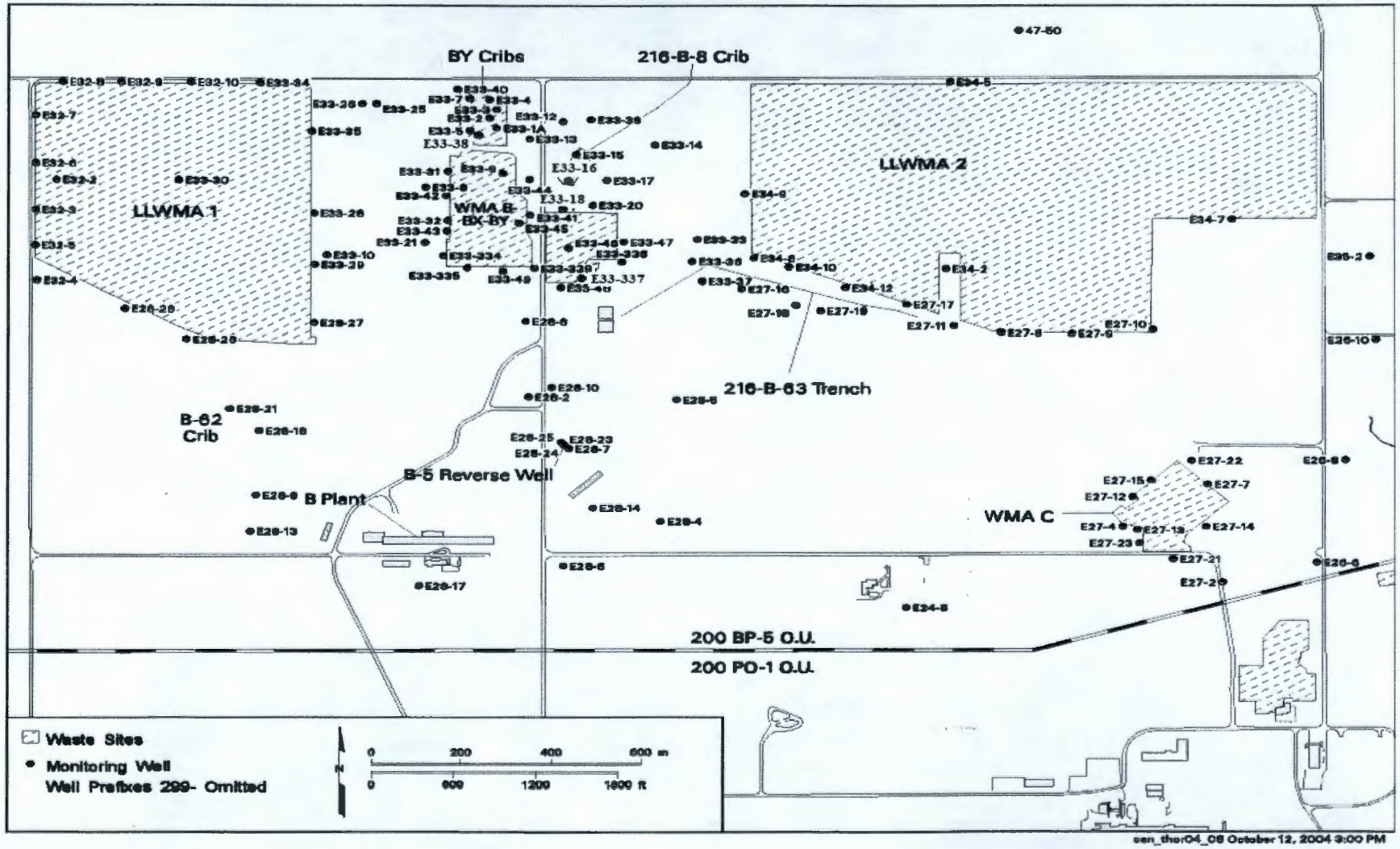


Figure 3: Well reporting significant increases in Tc-99 in August.



Attachment 14

200 AREA UNIT MANAGERS' MEETING SOURCE OPERABLE UNITS AND FACILITIES STATUS

February 15, 2007

SOURCE OPERABLE UNITS STATUS

M-15 TPA Milestones

- The responses to public comments for the "Proposed Tri-Party Agreement Modifications for Central Plateau Waste Site and Groundwater Remediation" (a.k.a. M-15 Tentative Agreement) have been prepared and are being reviewed by Ecology's legal staff for final agreement. Once agreement is reached the M-15 change package change requests will be signed.

Discussion: RL noted that they committed to the River and Plateau Committee of the HAB that a presentation to further explain the use of model groups (non-geographic basis) will be included for the RAP over the next few months.

200-PW-1, 200-PW-3, & 200-PW-6

- The PW-1/ZP-1 integrated team hosted a stakeholder workshop to discuss the feasibility studies on February 7-8, 2007.
- The path forward for comment resolution for EPA comments is being discussed by FH and RL.
- Vista Engineering completed vadose zone sampling at 9 locations in the Z-9 area on 11/28 using the Hydraulic Hammer Rig for subsurface access. Three locations were completed to allow future vapor sampling. Vista collected the final vapor samples on 01/08/07.
- Vista Engineering completed collecting data on 01/08/07 from the two instrument trees installed in the air space of the 216-Z-9 trench in May 2006.

200-TW-1, 200-TW-2 & 200-PW-5

- Draft Addendum to the Work Plan addressing the excavation-based BC Cribs and Trenches Area waste sites treatability test was submitted to EPA 12/22/06. Comments from EPA received. Preparation of updated Addendum is underway.

200-CW-1 (no change)

200-CW-3

- On October 16th met with EPA to present the path forward. The project is moving forward with geo-logging and push sampling for waste characterization.
- SAP approved by RL and EPA.

- RDR/RAWP transmitted to RL and EPA. Addressing RDR/RAWP comments. It should be noted that coverage under the 100 Area remaining sites ROD is only for four 200 north area sites, not all of the 200-CW-3.

Discussion: Dennis Faulk, EPA, noted that further discussions are needed on the RD/RA work plan expectations as to the actual design as identified in TPA section 11.6 as a result of the M-015 change package. A meeting will be set up outside the UMM.

200-PW-2 & 200-PW-4

- At the October UMM Ecology stated that subsequent to the finalization of the M-15 TPA Change Request, Ecology plans to send a letter to DOE-RL responding to the submitted FS and accompanying closure plans. The M-15 change package is about to be final.

Discussion: John Price, Ecology said the letter to RL will explain how TSD closures will be completed by the end of 2008. This OU includes the 4 TSDs. The NOD process, under the TPA, will be used to finalize the closure plans to add them to the Site-wide RCRA permit.

200-CS-1

- RL has determined that no additional meetings are needed to support developing responses to Ecology comments. To that end RL is planning to submit to Ecology by February 9, 2007, a proposed comment response package. Of the 330 Ecology July 3, 2006 comments, RL proposes: to incorporate 276 comments, as clarified, in the Draft B FS; that 46 comments directly relate to policy or plateau-wide issues; and specific comment responses for 8 comments. Subsequently, RL proposes a one-half-day workshop with Ecology to be held during the week of February 19, 2007, to conclude comment resolution and to present for discussion the path forward for the development of Draft B of the FS. This meeting is currently scheduled for February 20.

200-CW-5, CW-2, CW-4, & SC-1

- Four waste sites need more data through the supplemental characterization efforts. Initiated Z-Ditches Engineering Study to further refine the conceptual site model and the evaluation of alternatives and better understand the options with regard to "hot spots".

Ecological Risk Assessment

- Phase III soil sampling activities began on 11/06/06. All biota and soil sampling activities have been completed. A radiological survey is required at one of the offsite reference sites. This was prevented because of snow cover.
- Two of the Phase III West Lake activities will be performed in March, 2007, including pore water and brine fly sampling. This is because the SAP was approved in October, after West Lake had dried-up and the flies were no longer present.

- The Ecological Risk Assessment Report is undergoing initial text development.
- The March 2005 sampling performed in the BC Controlled Area to verify the presence or absence of chemical constituents will be repeated because a QC duplicate sample was not collected according to plan. This characterization is very important because it supports the establishment of the COPEC list for the Central Plateau Phase II Ecological DQO and the COPC list for the 200-UR-1 Work Plan. The sampling and analysis instruction has been revised and is being re-issued to support this characterization effort.

200-IS-1 & 200-ST-1

- RL has requested minor modifications to the principle study questions.
- Developing a time frame to present the changes to Ecology.

200-LW-1/200-LW-2

- Responses to Ecology's RI Report comments have been prepared for submittal to Ecology. Submittal of Draft A of the FS and PP has been delayed to 12/31/2011, per TPA Change Number M-15-06-05.

200-MW-1

- New field work at 216-A-2 crib and 216-A-21 was identified in the supplemental DQO process. Initial planning for this field work has started.

200-UR-1

- Rev. 1 of the Sampling and Analysis Plan is in the Department of Ecology approval process. Conditional approval to proceed for field sampling activities was given by e-mail on December 13, 2006.
- Non-Intrusive surveys for BC Controlled Area completed September 27, 2006.
- Geoprobe logging for the BC Controlled Area is currently 75% complete.
- Analytical sampling scheduled to begin in late February.

Discussion: John Price, Ecology, stated that Ecology is happy with the extensive sampling being done by FH that has reduced the size of the potentially contaminated areas in the BC Controlled Area.

200-SW-1/2

- Collaborative DQO workshops have been underway since late August, and will require more time than originally planned. DOE noted that additional DQO workshops will affect the planned completion date for the RI/FS Work Plan, Draft B (a proposed TPA interim milestone, M-13-028). Further discussion on this topic will be held with DOE and Ecology. John Price believes that, under the TPA, if DOE believes the work plan will be late, they owe notification to Ecology.

- Decision makers from DOE-RL, Ecology and EPA met on November 9, 2006 to

review, comment and ensure alignment on the 200-SW-2 DQO scope, objective and assumptions. Four of eleven agenda items were addressed during the November meeting. Preparations are underway for additional meetings.

BC Cribs and Trenches

- Draft DQO summary reports have been prepared that addresses the excavation-based treatability test and correlation of HRR characterization with soil characterization data.
- Draft SAPs have been prepared for both the treatability test and HRR Correlation activities.

200-UW-1

- 200-W-42 VCP / UPR-200-W-163 – All Time Critical Removal Action (TCRA) excavation completed and Phase I portion backfilled on 9/30/06. Phase II backfill pending resolution of >15' deep contamination. A BCR is being prepared which addresses RL priorities considering available funding. Excavation area monitoring (contamination and air) continues.
- ROD is being updated and reviewed to reflect recent path forward. Schedule has been pushed out to June 2007 due to changes in ROD approach, (i.e., final vs interim for cribs). Public comment of the Proposed Plan was completed on June 30, 2005. Increased focus continues to be needed to prioritize the issuance of this decision document.
- Responsiveness summaries to public comments on TPA Change Request for reclassifying Crib 216-U-12 to a RCRA Past Practice (RPP) unit were sent for final review week of 1/15/07.
- TPA Change Request to change 216-U-15 from a CPP to a RPP has been reviewed and updated. Package will be transmitted with U-12 package for final review. No public review is anticipated for this portion of the change request.
- RAGs for 200-UW-1 need to be finalized. Several peer reviews have been completed and a presentation was made to RL and the regulators on 2/6/07. It is generally accepted that refined cleanup levels resulting from modeling efforts will not be available to meet the schedule for completing the ROD. Due to contamination >15' depth at 200-W-42 excavation establishing acceptable goals is a high priority. It is generally accepted that refined cleanup levels resulting from modeling efforts will not be available to meet the schedule for completing the ROD. Due to contamination >15' depth at 200-W-42 excavation establishing acceptable goals is a high priority.
- Challenges to the Area C cultural review are being made by Yakama Tribes and Washington State Department of Archaeology & Historic Preservation (DAHP). Path-forward is under RL review.
- Phase II of the 241-U-361 Settling Tank (sampling tank sludge) has begun. Tri-party support is needed for timely issuance of the SAP in early February 2007.

Well Decommissioning

- Updates to Waste Control Plans (Attachment 16)

- Well 299-E28-63 was added to the Decommissioning list for PW-2 OU.
- Well 299-E28-90 was added to the Decommissioning list for PW-5 OU.
- Wells 299-E33-287, -288, -289, -290, 299-E33-79, -81, -82 were added to the Decommissioning list for TW-2 OU.
- Wells 299-W15-204, 299-W22-61, and 299-W22-63 were added to the Decommissioning list for LW-2 OU.

FACILITIES STATUS

- **221-U Facility/Canyon Disposition Initiative (CDI)**
  - Continuing development of remedial design engineering alternatives studies
    - Grout study (June 2007)
    - Cell 30 tank contents removal study (June 2007)
  - Draft A *Remedial Design/Remedial Action Work Plan for the 221-U Facility* and an accompanying draft TPA change form were transmitted for EPA and Ecology review on 12/21/06. EPA and Ecology are making use of a 30-day extension on the review period taken by EPA.
  - Continuing development of canyon waste acceptance study (June 2007)
  - Gathering information to support initiation of PUREX canyon DQO interviews in late February 2007

- **Facility Binning (no change)**
  A preliminary draft of an Agreement-in-Principle for proposed TPA revisions related to facility binning path forward is in review at DOE-RL.

- **Miscellaneous Facility D&D**
  Completed structural demolition of Buildings 2231E, 2232E, 2233E, MO-943,2710-E, MO-991, MO-440, and 607. Demolition of 622-G and 622-D will be completed in February to complete the demolition of 10 miscellaneous structures in FY 2007.

Table 4. Decommissioning Effort FY 2005 and FY 2006

(This list will be updated as wells are identified for decommissioning, and will be provided at the 200 Area Unit Manager's Meeting and included in the UMM Minutes)

- Shading indicates wells added for this change.

Area	Operable Unit	Waste Site Code	Site Type	Hanford Well Name	Hanford Well ID
200 E	200-PW-2	200-E-58	UPR	299-E24-55	A5912
200 E	200-PW-2	216-A-5	Crib	299-E24-56	A5913
200 E	200-PW-2	216-A-5	Crib	299-E24-57	A5914
200 E	200-PW-2	216-A-10	Crib	299-E24-59	A5916
200 E	200-CW-1*	216-A-9	Crib	299-E24-63	A5918
200E	200-PW-2	216-B-12	Crib	299-E28-16	A6794
200 E	200-PW-2	216-B-12	Crib	299-E28-76	A6827
200 E	200-PW-2	216-B-12	Crib	299-E28-63	A6814

Note: Well decommissioning waste will be managed as described in Section 1.4 of this Waste Control Plan in a Waste Container Storage Area located approximately as shown near the 216-B-12 Crib in Figure 2.

*Well decommissioning waste types are consistent regardless of their Operable Unit of origin, therefore, as a matter of convenience, waste from this 200-CW-1 Operable Unit well will be managed at the Waste Container Storage Area shown in Figure 3.

Table 3. List of 200-TW-2 Wells to be Decommissioned

(This list will be updated as wells are identified for decommissioning, and will be provided at the 200 Area Unit Manager's Meeting and included in the UMM minutes)

- Shading indicates wells added for this change.

Area	Operable Unit	Waste Site Code	Site Type	Hanford Well Name	Hanford Well ID
200 E	200-TW-2	216-B-8	Crib	299-E33-71	A6879
200 E	200-TW-2	216-T-22	Trench	299-W15-81	A7382
200 W	200-TW-2	216-T-6	Crib	299-W11-54	A7296
200 W	200-TW-2	216-T-6	Crib	299-W11-55	A7297
200 W	200-TW-2	216-T-6	Crib	299-W11-56	A7298
200 W	200-TW-2	216-T-6	Crib	299-W11-57	A7299
200 W	200-TW-2	216-T-6	Crib	299-W11-58	A7300
200 W	200-TW-2	216-T-6	Crib	299-W11-59	A7301
200 W	200-TW-2	216-T-6	Crib	299-W11-60	A7302
200 W	200-TW-2	216-T-6	Crib	299-W11-61	A7303
200 W	200-TW-2	216-T-6	Crib	299-W11-62	A7304
200 W	200-TW-2	216-T-6	Crib	299-W11-63	A7305
200 W	200-TW-2	216-T-6	Crib	299-W11-64	A7306
200 W	200-TW-2	216-T-6	Crib	299-W11-65	A7307
200 W	200-TW-2	216-T-6	Crib	299-W11-66	A7308
200 W	200-TW-2	216-T-6	Crib	299-W11-67	A7309
200 W	200-TW-2	216-T-15	Trench	299-W11-68	A7310
200 W	200-TW-2	216-T-14	Trench	299-W11-69	A7311
200 W	200-TW-2	216-T-16	Trench	299-W11-80	A7322
200 W	200-TW-2	216-T-17	Trench	288-W11-81	A7323
200 E	200-PW-5*	216-B-62	Crib	299-E28-75	A6826
200 E	200-PW-5	216-B-62	Crib	299-E28-84	A6835
200 E	200-PW-5	216-B-62	Crib	299-E28-85	A6836
200 E	200-PW-5	216-B-62	Crib	299-E28-86	A6837

Area	Operable Unit	Waste Site Code	Site Type	Hanford Well Name	Hanford Well ID
200 E	200-PW-5	216-B-62	Crib	299-E28-87	A6838
200 E	200-PW-5	216-B-62	Crib	299-E28-88	A6839
200 E	200-PW-5	216-B-62	Crib	299-E28-89	A6840
200 E	200-PW-5	216-B-62	Crib	299-E28-90	A6841
200 E	200-PW-5	216-B-62	Crib	299-E28-91	A6842
200 E	200-TW-2	216-B-9	Crib	299-E28-53	A6804
200 E	200-TW-2	216-B-9	Crib	299-E28-54	A6805
200 E	200-TW-2	216-B-9	Crib	299-E28-55	A6806
200 E	200-TW-2	216-B-9	Crib	299-E28-56	A6807
200 E	200-TW-2	216-B-9	Crib	299-E28-57	A6808
200 E	200-TW-2	216-B-9	Crib	299-E28-58	A6809
200 E	200-TW-2	216-B-9	Crib	299-E28-59	A6810
200 E	200-TW-2	216-B-9	Crib	299-E28-60	A6811
200 E	200-TW-2	216-B-9	Crib	299-E28-61	A6812
200 E	200-TW-2	216-B-9	Crib	299-E28-62	A6813
200 E	200-TW-2	216-B-9	Crib	299-E28-67	A6818
200 E	200-TW-2	216-B-9	Crib	299-E28-68	A6819
200 E	200-TW-2	216-B-9	Crib	299-E28-74	A6825
200 W	200-TW-2	216-T-22	Crib	299-W15-209	A7507
200 W	200-TW-2	216-T-23	Crib	299-W15-210	A7508
200 W	200-TW-2	216-T-24	Crib	299-W15-211	A7509
200 W	200-TW-2	216-T-25	Crib	299-W15-212	A7510
200 E	200-PW-5	216-B-62	Crib	299-E28-90	A6841
200 E	200-TW-2	216-B-35	Crib	299-E33-287	A7083
200 E	200-TW-2	216-B-35	Crib	299-E33-288	A7084
200 E	200-TW-2	216-B-35	Crib	299-E33-289	A7085
200 E	200-TW-2	216-B-35	Crib	299-E33-290	A7086
200 E	200-TW-2	216-B-8	Crib	299-E33-79	A6887

200 E	200-TW-2	216-B-8	Crib	299-E33-81	A6889
200 E	200-TW-2	216-B-8	Crib	299-E33-82	A6890

* 200-PW-5 OU was grouped with the 200-TW-1 and 200-TW-2 OUs per TPA Change No., M-015-02-01, dated 5/09/2002.

Note: The Waste Container Storage Area shown in Figure 3 will be used for all well decommissioning waste (i.e., caps and risers) from the wells added by this change.

Table 4. Well Decommissioning List

(This list will be updated as wells are identified for decommissioning, and will be provided at the 200 Area Unit Manager's Meeting and included in the UMM Minutes)

- Shading indicates well(s) added for this change.

Area	Operable Unit	Waste Site Code	Site Type	Well Name	Well ID
200 W	200-LW-2	216-Z-7	Crib	299-W15-63	A7364
200 W	200-LW-2	216-Z-7	Crib	299-W15-76	A7377
200 W	200-LW-2	216-Z-7	Crib	299-W15-78	A7379
200 W	200-LW-2	216-Z-7	Crib	299-W15-77	A7378
200 W	200-LW-2	216-Z-17	Crib	299-W15-204	A7502
200 W	200-LW-2	216-S-20	Crib	299-W22-61	A7868
200 W	200-LW-2	216-S-20	Crib	299-W22-63	A7870

Note: Well decommissioning waste from 299-W15-204 will be stored at the Waste Container Storage Area shown in Figure 4 of this WCP. Well decommissioning waste from 299-W22-61 and 299-W22-62 will be stored in the WCSA shown in Figure 3 of this WCP.

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