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Please distribute to the following:

100/300 AREA UNIT MANAGER MEETING
ATTENDANCE AND DISTRIBUTION

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Guzzetti, Chris	Guzzetti.Christopher@epa.gov	A3-46	EPA
Hadley, Karl A	karl.hadley@wch-rcc.com	H4-21	WCH

NOTE FOR ADMIN RECORD:
TPA Milestones
M-015-79
M-016-00C
M-016-143
M-016-173
M-016-175
M-016-176
M-016-177
M-016-178
M-016-181
M-016-186
M-093-27
M-093-28

Operable Units
100-BC-1
100-BC-2
100-BC-5
100-FR-3
100-HR-3
100-IU-2
100-IU-6
100-KR-4
100-NR-2
300-FF-5

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100/300 AREA UNIT MANAGERS MEETING
APPROVAL OF MEETING MINUTES

February 11, 2016

APPROVAL: _____ Date 3/10/16
Mark French, DOE/RL (A6-38)
River Corridor Project Manager

APPROVAL: _____ Date 3/10/16
Mike Cline, DOE/RL (A5-11)
Groundwater Project Manager

APPROVAL: _____ Date 3/10/16
Nina Menard, Ecology (H0-57)
Environmental Restoration Project
Manager

APPROVAL: _____ Date 3/10/16
Laura Buelow, Rod Lobos, or Christopher
Guzzetti, EPA (B1-46)
100 Area Project Manager

100 & 300 AREA UNIT MANAGER MEETING MINUTES

Groundwater and Source Operable Units; Facility Deactivation, Decontamination, Decommission, and Demolition (D4); Interim Safe Storage (ISS); Field Remediation (FR); Mission Completion; and 100-K Sludge Treatment Project and 100-K Facility Demolition and Soil Remediation Projects

February 11, 2016

ADMINISTRATIVE

- Next Unit Manager Meeting (UMM) – The next meeting will be held March 10, 2016, at the Washington Closure Hanford (WCH) Office Building, 2620 Fermi Avenue, Room C209.
- Attendees/Delegations – Attachment A is the list of attendees. Representatives from each agency were present to conduct the business of the UMM.
- Approval of Minutes – The January 14, 2016, meeting minutes were approved by the U.S. Environmental Protection Agency (EPA), Washington State Department of Ecology (Ecology), and U.S. Department of Energy, Richland Operations Office (RL).
- Action Item Status – The status of action items was reviewed and updates were provided (see Attachment B).
- Agenda – Attachment C is the Regular Session meeting agenda.

EXECUTIVE SESSION (Tri-Parties Only)

An Executive Session was not held by RL, EPA, and Ecology prior to the February 11, 2016, UMM.

STATUS OF PLANNING FOR TRANSITIONING REVEGETATION ACTIVITIES

Attachment 1 provides a presentation made by Dale McKenney on the status of planning for the transitioning of revegetation activities from WCH to CH2M Hill Plateau Remediation Company.

100-K AREA (GROUNDWATER, SOILS, D4/ISS)

Attachment 2 provides status and information for groundwater. Attachment 3 provides a status of the 100-K Sludge Treatment Project and the 100-K Facility Demolition and Soil Remediation projects. No issues were identified and no agreements or action items were documented.

100-B/C AREA (GROUNDWATER, SOILS, D4/ISS)

Attachment 2 provides status and information for groundwater. Attachment 4 provides status and information for Washington Closure Hanford (WCH) Closure Operations activities at the 100 areas (B/C, D, H, and N), 618-10, and the 300 Area. Attachment 5 provides the Field Remediation schedule for 100-B, 100-D, 100-H, 100-N, and 100-IU-2/6. No issues were identified and no action items were documented.

> Agreement 1: Attachment 6 provides EPA and Ecology concurrence to extend revegetation activities in the 100 B, H, and N Areas and the 600 Area from the November through January window specified in the *Remedial Design Report/Remedial Action Work Plan for the 100 Area* (DOE/RL-96-17) to February and March 2016.

100-N AREA (GROUNDWATER, SOILS, D4/ISS)

Attachment 2 provides status and information for groundwater. Attachment 4 provides status and information for WCH Closure Operations activities at the 100 areas (B/C, D, H, and N), 618-10, and the 300 Area. Attachment 5 provides the Field Remediation schedule for 100-B, 100-D, 100-H, 100-N, and 100-IU-2/6. No issues were identified and no agreements or action items were documented (although see Attachment 6).

100-D & 100-H AREAS (GROUNDWATER, SOILS, D4/ISS)

Attachment 2 provides status and information for groundwater. Attachment 4 provides status and information for WCH Closure Operations activities at the 100 areas (B/C, D, H, and N), 618-10, and the 300 Area. Attachment 5 provides the Field Remediation schedule for 100-B, 100-D, 100-H, 100-N, and 100-IU-2/6. No issues were identified and no agreements or action items were documented (although see Attachment 6).

100-F & 100-IU-2/100-IU-6 AREAS (GROUNDWATER, SOILS, D4/ISS)

Attachment 2 provides status and information for groundwater. Attachment 4 provides status and information for WCH Closure Operations activities at the 100 areas (B/C, D, H, and N), 618-10, and the 300 Area. Attachment 5 provides the Field Remediation schedule for 100-B, 100-D, 100-H, 100-N, and 100-IU-2/6. No issues were identified and no action items were documented (also see Attachment 6).

Agreement 1: Attachment 7 provides Ecology's concurrence that ambient air monitoring for radionuclides is not required at the 600-385 waste site.

Agreement 2: Attachment 8 provides an EPA and DOE approved Tri-Party Agreement change notice TPA-CN-708 to update the *Remedial Design Report/Remedial Action Work Plan Addendum for the 100-F/IU Groundwater,* DOE/RL-2014-44-ADD2, Revision 0, Appendix C, Waste Management Plan for the 100-FR-3 Operable Unit, by modifying Table C-1 and Table C-2 to add well 699-61-37, Seep 187-1, and the 100-F River Gauge.

300 AREA – 618-10/11 (GROUNDWATER, SOILS)

Attachment 4 provides status and information for WCH Closure Operations activities at the 100 areas (B/C, D, H, and N), 618-10, and the 300 Area. No issues were identified and no action items were documented.

Agreement 1: Attachment 9 provides EPA's approval to reduce the batch sampling frequency from 1 in 4 (25%) as specified in the *Acceptance and Treatment Plan for Liquid Anomalies in Bottles and Processing Concrete Drums at the 618-10 Burial Ground* (WCH-532, Rev. 4) to 1 in 20 (5%).

300 AREA - GENERAL (GROUNDWATER, SOILS, D4/ISS)

Attachment 2 provides status and information for groundwater. Attachment 4 provides the 100 areas (B/C, D, H, and N), 618-10, and the 300 Area. No issues were identified and no agreements or action items were documented.

ORCHARD LANDS

John Sands reported that the revised red-line of the Remedial Investigation Work Plan should be available for review in about two weeks. No issues were identified and no agreements or action items were documented.

CERCLA FIVE YEAR REVIEW

Rick Moren reported that a draft document should be available for review by EPA and Ecology in August 2016, such that, after comment incorporation, the final document might be issued by January 2017, well ahead of the regulatory due date of May 4, 2017. No issues were identified and no agreements or action items were documented.

Attachment A

100/300 AREA UNIT MANAGER MEETING

ATTENDANCE

February 11, 2016

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Attachment B

100/300 Area UMM
Action List
February 11, 2016

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status

Attachment C

100/300 Area Unit Manager Meeting
February 11, 2016
Washington Closure Hanford Building
2620 Fermi Avenue, Richland, WA 99354
Room C209; 2:00 p.m.

Administrative:

- Approval and signing of previous meeting minutes
- Update to Action Items List
- Next UMM (3/10/2016, Room C209)

Open Session: Project Area Updates - Groundwater, Field Remediation, D4/ISS:

- Revegetation Status Post Transition Planning (Dale McKenney)
- 100-K Area (Steve Balone, Roger Quintero)
- 100-B/C Area (Greg Sinton)
- 100-N Area (Greg Sinton, John Neath)
- 100-D & 100-H Areas (Steve Balone, John Neath)
- 100-F & 100-IU-2/6 Areas (Greg Sinton, John Neath)
- 300 Area - 618-10/11 exclusively (Jamie Zeisloft)
- 300 Area (John Sands/Rudy Guercia)
- Orchard Lands (John Sands)

Special Topics/Other

- CERCLA Five Year Review

Adjourn

Attachment 1

Revegetation Transition Discussion
100 Area UMM
February 11, 2016

Dale McKenney (for Kelly Wooley), CHPRC
Jill Thomson, WCH
James Bernhard, WCH
John Neath, DOE-RL

Discussion Items:

- Transition to occur by the end of August, 2016.
- Organizational placement of revegetation responsibilities within CHPRC are under discussion, but likely to be in the Central Plateau S&M/D4 organization.
- Revegetation is discussed in the Transition Plans
    - WCH Transition Plan, WCH-623, Section 4.1.3
        - WCH will complete FY16 revegetation campaign.
        - WCH will identify FY17 revegetation scope.
        - WCH will initiate seasonal seed/plant acquisition activities.
        - CHPRC/OHC will conduct FY17 revegetation campaign.
    - CHPRC Transition Plan, CP-59601, Appendix D
        - Discusses "Remaining Closure Operations", which include completion of remedial actions (and revegetation if applicable).
        - Not specific about revegetation details.
- CHPRC and WCH discussions and coordination are ongoing on the following critical topics:
    - Tubeling propagation (February).
    - Grass seed procurement (May).
    - Straw supply assessment and procurement as necessary (probably sufficient).
    - Subcontract extensions and contracting.
    - Shrub/forb seed collection (March – December).
- Monitoring.

Attachment 2

Summary Hanford Sampling Program

Hanford's overall Site groundwater monitoring program (River Corridor and Central Plateau) includes collection of groundwater samples from wells, aquifer tubes, surface water and springs. Sample trips are scheduled by target month and prioritized based on project needs. Target sample dates (months) are chosen to minimize the number of sample trips by aligning requests from multiple project activities for a single location into a single trip, where practical.

For Fiscal Year 2016 the monitoring program has 2,763 sample trips scheduled for collection.

Sample Trip Status by Month Scheduled

For FYTD 2016 (October 2015 through January 2016), DOE has successfully completed 1,153 of 1,201 scheduled sample trips. In January 2016, the program successfully completed 213 of the 244 sampling trips scheduled for the month.

Additionally, 1 trip scheduled for FY2015 was collected in January which brings the total number of FY2015 trips to be collected to 3,107 of 3,116 scheduled (9 missed).

The specific wells, aquifer tubes, and springs sampled in the river corridor during January 2016 are listed in Table 1.

Awaiting Sample Trips

Of the Fiscal Year 2015 and 2016 sample trips scheduled for January 2016 and prior, there are 63 that are awaiting collection. Of these, 5 have been collected, 8 require maintenance, 2 have access restrictions, 1 is a pump-and-treat well with configuration issues, 11 have adjusted schedules, 7 are being evaluated for cancelation, 6 have been canceled, and 23 are awaiting collection at the month end.

Table 2 presents the sample trips for only the river corridor that were not successfully completed in January. Sample trips in Table 2 are grouped by fiscal month scheduled and groundwater interest area. This table clearly shows that the number of awaiting well trips decreases with time from the schedule date. Reasons for sample trips to be awaiting include but are not limited to issues such as well maintenance, weather conditions, access restrictions, and resource limitations.

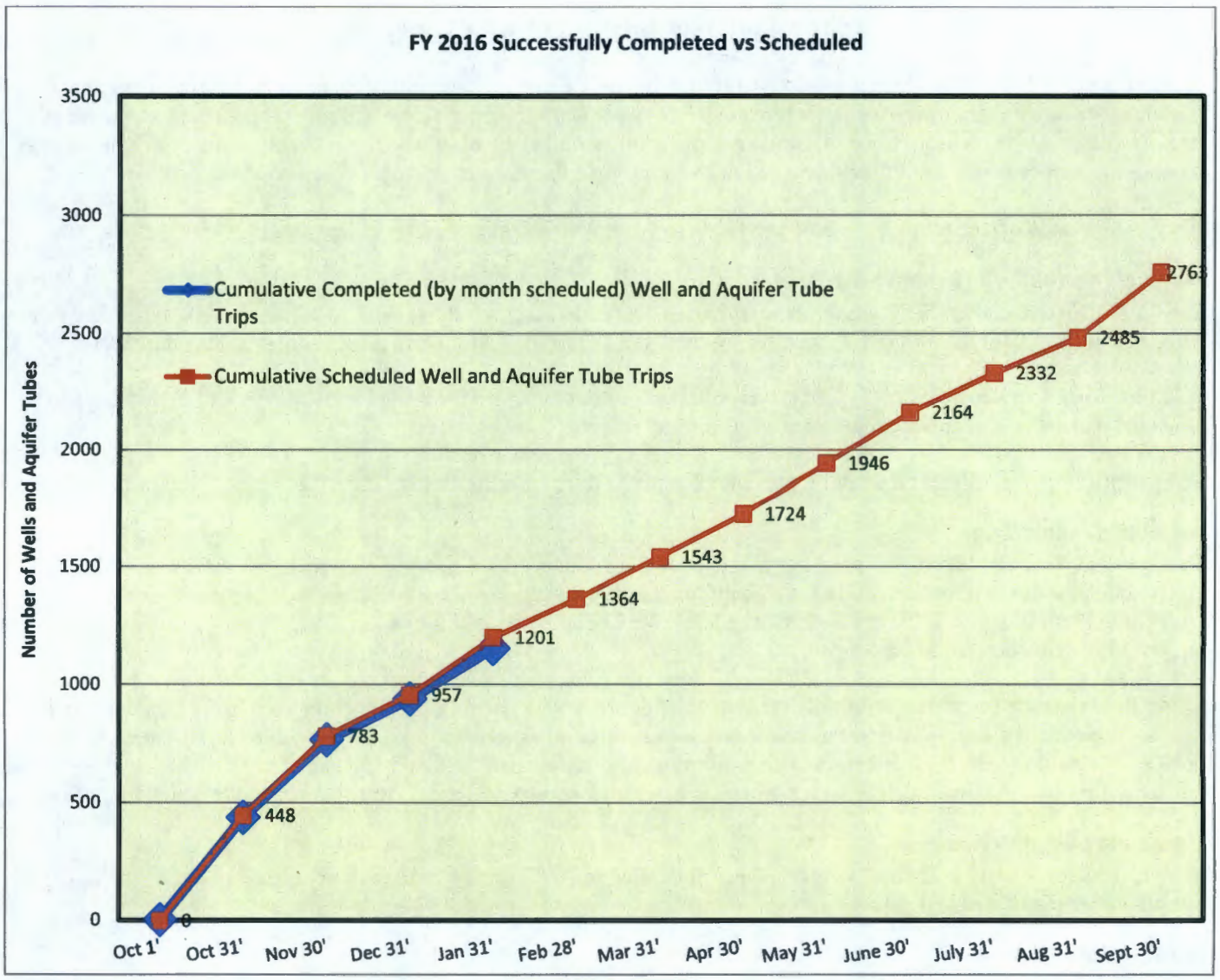
Upcoming Sample Trips

Sample trips for the river corridor only, scheduled for collection in February 2016 (and not collected before the target sample month) are listed in Table 3.

Data Access

The sampling results are available in HEIS and can be accessed from the Environmental Dashboard Application which can be accessed from the HLAN at https://ehs.chprc.rl.gov/eda/ or from the internet at https://ehs.hanford.gov/eda/.

100/300 Areas Unit Managers Meeting
February 11, 2016



Operable Unit Specifics

100-KR-4 Groundwater Operable Unit (Mike Drewett/Chuck Miller/Jason Hulstrom)

- CERCLA Process Implementation:
  - ✓ The RI/FS and PP documents are on hold pending 100-K East Reactor waste site characterization and modeling (wells 116-KE-3 and UPR-100-K-1). PNNL is conducting leach testing and the final report for this work is scheduled for completion in March 2016. Previously reported completion date was modified due to higher-than-anticipated levels of deep contamination in sample material, which caused changes to PNNL laboratory processes.
  - ✓ Monitoring Plan: DOE/RL is reviewing the Draft A documents (Interim O&M Plan, Interim RD/RAWP, and Interim Groundwater Monitoring Plan).
  - ✓ The sampling and analysis plan for 100-KR-4 wells 199-K-223, 199-K-224, 199-K-225, and 199-K-226 (DOE/RL-2013-36, Addendum 3) was drafted, reviewed (internal and RL) and completed by January 28, 2016. Final signatures and approval will occur in early February 2016.
- Remedial Actions & System Modifications:
  - ✓ The volume of groundwater treated and mass of Cr(VI) removed for the 100-K P&T systems (**KX, KR-4,** and **KW)** during January 2016 are:
    - o Treated 62.6 million gallons (65.8 in December).
    - o Removal 3.2 kg of hexavalent chromium (3.6 in December)
  - ✓ The influent and effluent Cr(VI) concentrations (measured weekly) for the three K systems during January are presented in Table K-1.

Table K-1. Monthly Summary of Influent and Effluent Concentrations at the 100-KR-4 P&T Systems

System	Weekly Influent Concentrations[a] (µg/L)	Average Monthly Influent Concentration (µg/L)	Weekly Effluent Concentrations[a] (µg/L)	Average Monthly Effluent Concentration (µg/L)
100-KR4	5, 2, 1, 5	3.25	-1, -4, -7, -3[b]	-3.75[b]
100-KW	16, 15, 12	14.3	2, 0, 0	0.67
100-KX	21, 17, 18, 18	18.5	2, 3, 4	3.0

a. Concentrations provided represent samples taken during the current month and loaded into HEIS as of the publication of the UMM.

b. Concentrations reported are below detection and represent the actual instrument reading on the sample(s). The detection limit is approximately 2 µg/L hexavalent chromium. The readings indicate that the measured concentration is indistinguishable from the blank.

✓ FY 2016 (Oct. 2015 through Jan. 2016) P&T performance to date:

P&T System	Treated (mgal)	Removed (kg)
KR-4	51.8	1.2
KW	58	3.4
KX	143.3	9.0
100-KR-4 OU TOTAL	253.1	13.6

✓ For January 2016, the 30-day average pumping rates were 250 gpm, 325 gpm, and 827 gpm for the KR-4, KW, and KX systems, respectively. A summary of the number of extraction and injection wells in the three systems is shown in Table K-2. Figure K-1 illustrates the monthly average pumping rates for operating extraction wells across all 3 systems at 100-KR-4.

Table K-2. Summary of the Number of Extraction and Injection Wells in the Three Systems

Wells	KR4		KX		KW		TOTAL	
	2015	2016	2015	2016	2015	2016	2016	Current
Number of extraction wells	12	12	19	19	11	11	42	42
Number of injection wells	5	5	9	9	4	4	18	18

✓ During the month of January, the KR-4 system had a period of approximately 18 days of reduced flow due to maintenance work occurring at the facility. The pressure relief valves on the ion exchange vessels were changed out to conform to revised ASTM standards and increase reliability as well as moved for easier access. In support of this work, wells 199-K-120A and 199-K-127 were turned off. Once work was complete at the end of January, the wells were turned back on and the system returned to operations at over 300 gpm. Extraction well 199-K-129 remains offline, however the new pump was installed. The KR-4 hexavalent chromium concentration in extracted water continues to be below site cleanup requirements and cumulative hexavalent chromium removal is declining as a result. The system remains in service to provide hydraulic capture of groundwater inland of the river.

✓ At the KW system Wells 199-K-132, 199-K-139, and 199-K-166 remain off-line to allow increased pumping along the central axis of the plume. Based on current field and laboratory measurements in January 2016, all extraction wells at KW exhibit hexavalent chromium concentrations less than 20 µg/L. Cumulative hexavalent chromium removal is declining, primarily as a result of the continuing decrease in concentration in well 199-K-205.

✓ During January, the KX system was fully operational with the exception of two wells. Wells 199-K-163 and 199-K-171 were both down briefly for well maintenance. At the end of January, 5 of 19 extraction wells have concentrations that exceed 20 µg/L. These include 199-K-141, 199-K-152, 199-K-154, 199-K-182, and 199-K-210.

✓ Figures K-2 through K-4 present the groundwater treatment rate and hexavalent chromium removal information. As indicated in the curves below, Cr(VI) monthly mass removal at KR-4, KW, and KX have generally decreased in recent months due to continued optimization of remedial performance (e.g., increasing the overall system pumping rates, while extracted groundwater concentrations decrease).

- ✓ Assessment of soil and groundwater characterization data from boreholes in the vicinity of 105-KE Reactor continues. New wells 199-K-221 and 199-K-222 have been placed in service as groundwater monitoring wells.
- ✓ Soil remediation (i.e., remove-treat-dispose, or RTD) in vicinity of 183-KE Head House is continuing. The waste sites being remediated include the foundations of former cooling water treatment chemical storage tanks and associated conveyance pipes, and underlying contaminated soil to a depth of about 10 feet below plant grade. Existing wells 199-K-36 and 199-K-188 are remaining in service during the soil excavation.

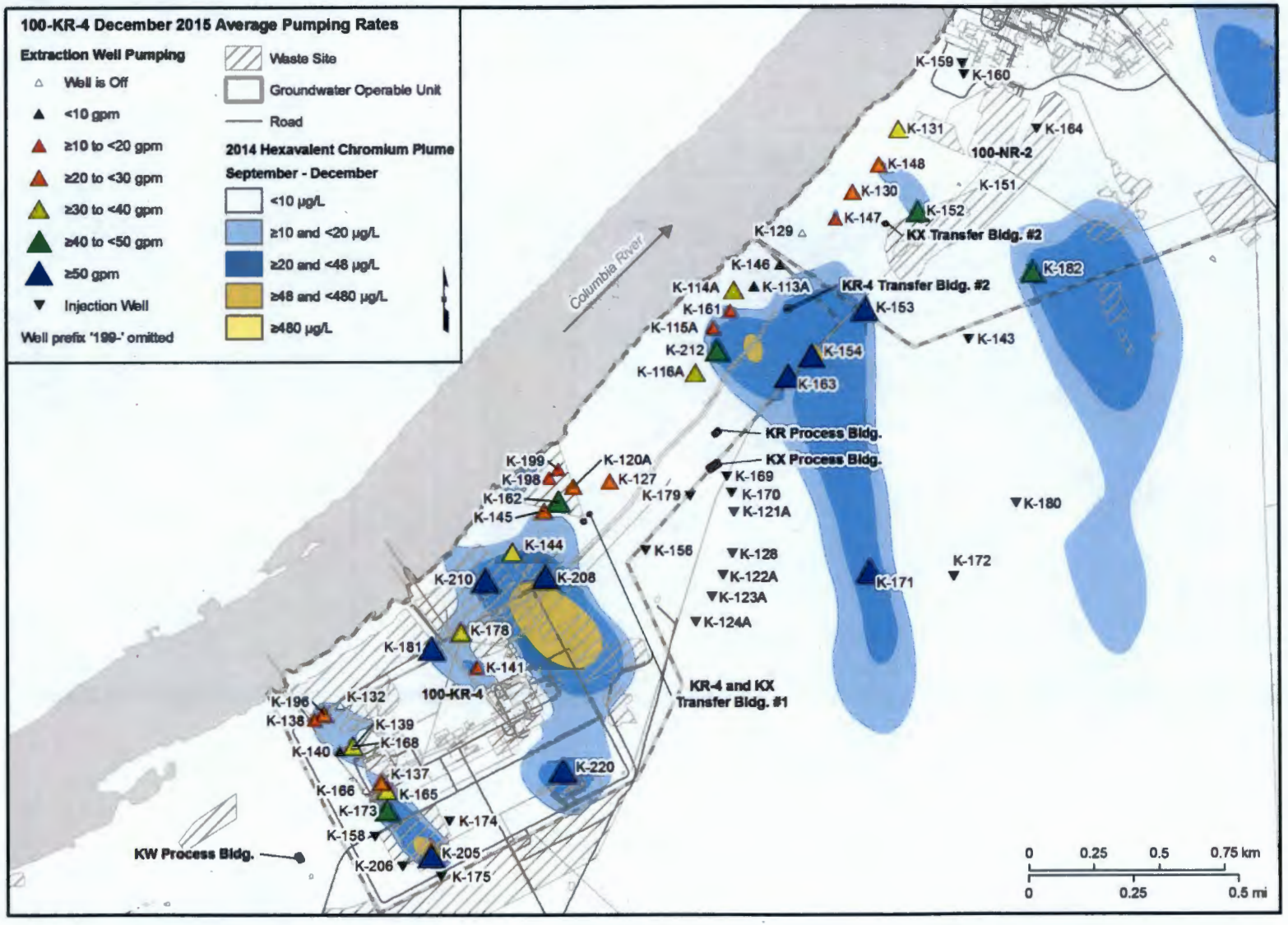


Figure K-1. December 2015 Average Pumping Rates for the 100-KR-4 P&T Systems

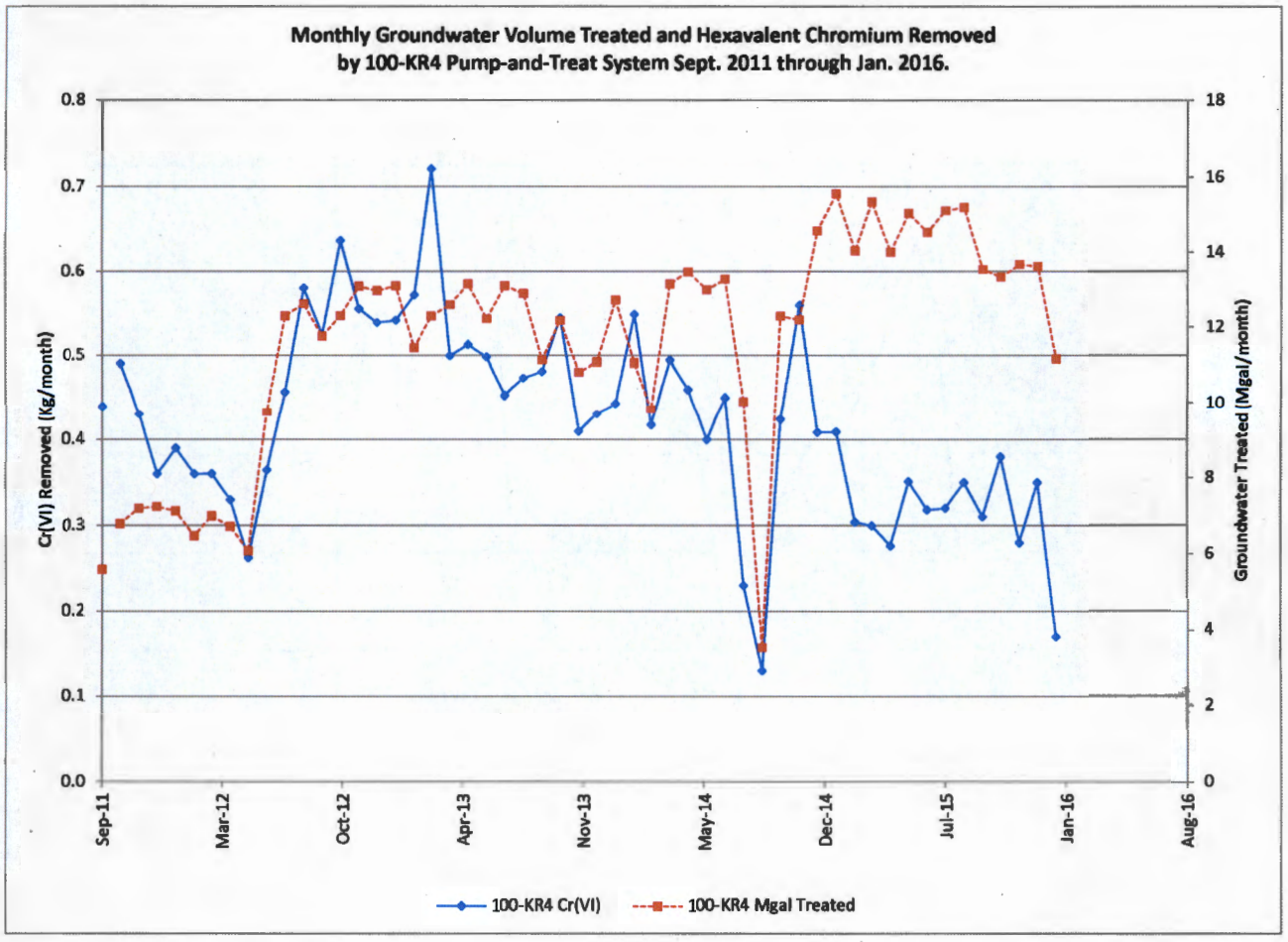


Figure K-2. Monthly Cr(VI) Removed and Groundwater Volume Treated by 100-KR-4 Pump-and-Treat, September 2011 through January 2016.

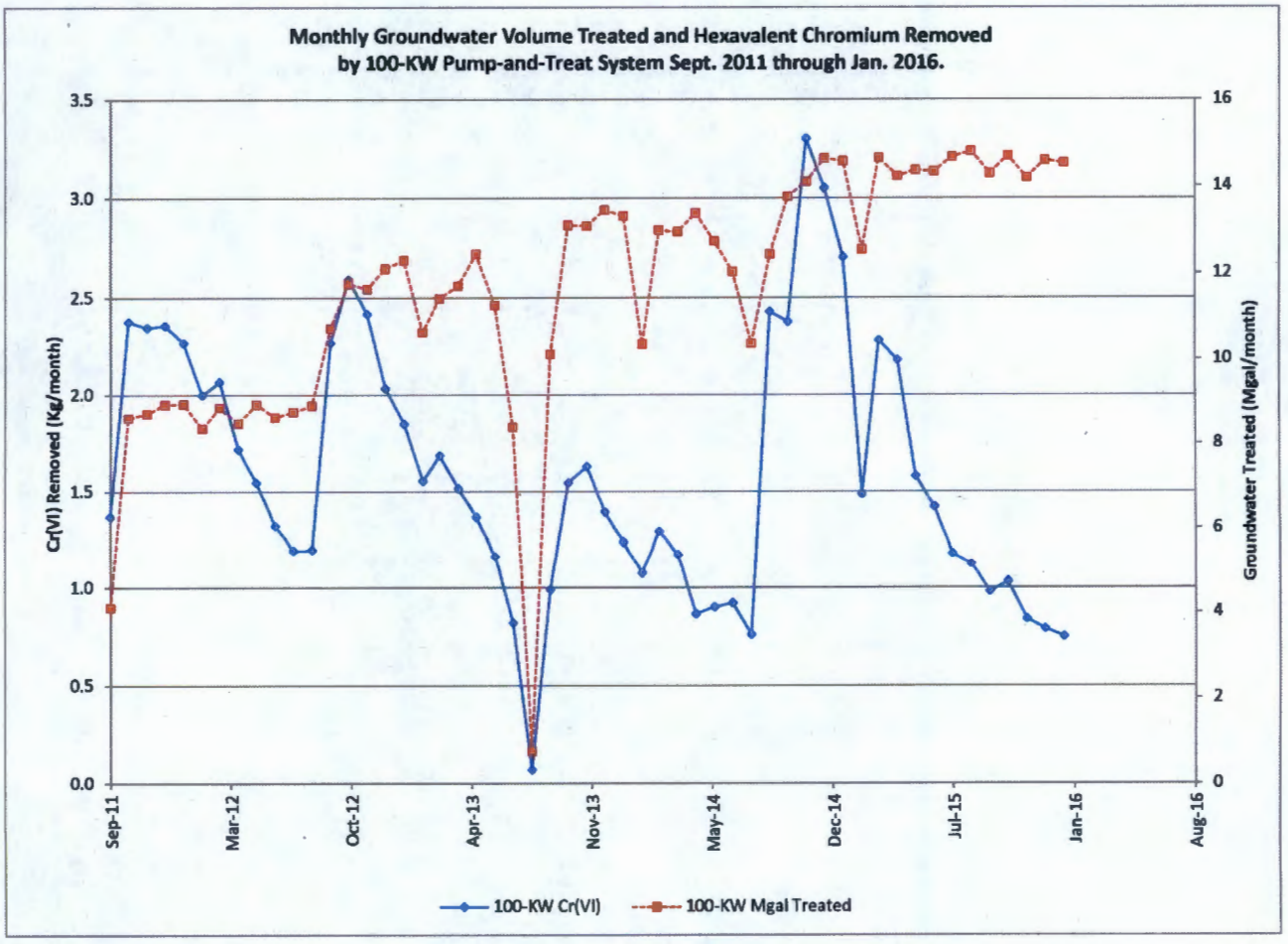


Figure K-3. Monthly Cr(VI) Removed and Groundwater Volume Treated by 100-KW Pump-and-Treat, September 2011 through January 2016.

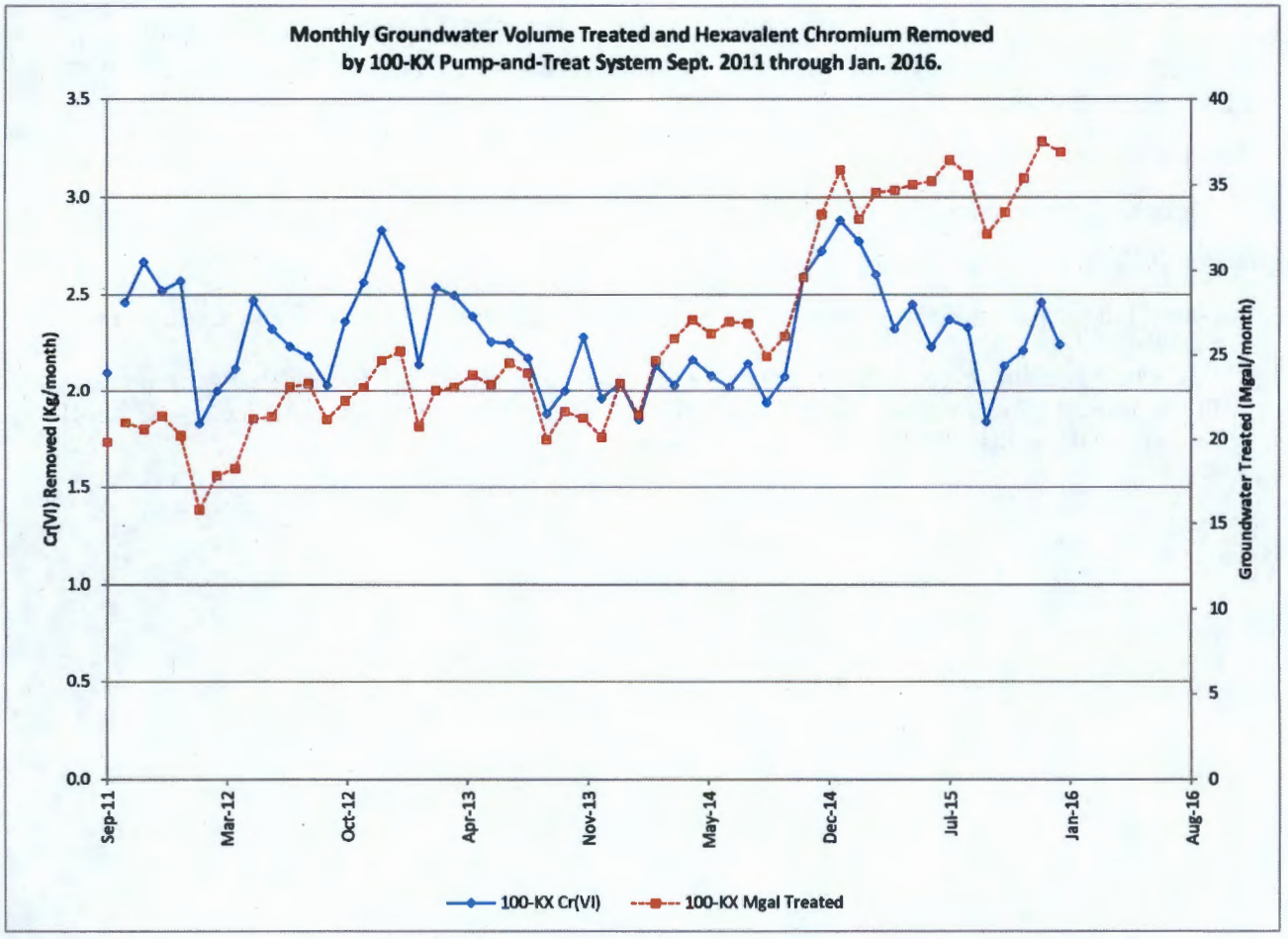


Figure K-4. Monthly Cr(VI) removed and groundwater volume treated by 100-KX pump-and-treat, September 2011 through January 2016.

100-BC-5 Groundwater Operable Unit – Robert Evans/Mary Hartman

- *Milestone M-015-79:* Due 12/15/2016 for the CERCLA RI/FS Report and Proposed Plan for the 100-BC-1, 100-BC-2 and 100-BC-5 Operable Units
- CERCLA Process Implementation:
  - ✓ Completed the required 2 years of groundwater sampling for M-015-78 on January 12, 2016.
- Monitoring & Reporting:
  - ✓ Some of the data from wells sampled in January have been loaded into HEIS. Results were within previously established ranges.
  - ✓ Hexavalent t chromium concentrations fluctuate seasonally in wells 199-B5-10 and 199-B4-14 in southern 100-BC, as vertical flow directions change (Figure BC-1). Concentrations continued to decline in well 199-B4-7 in central 100-BC as the 100-C-7:1 chromium plume moves past.

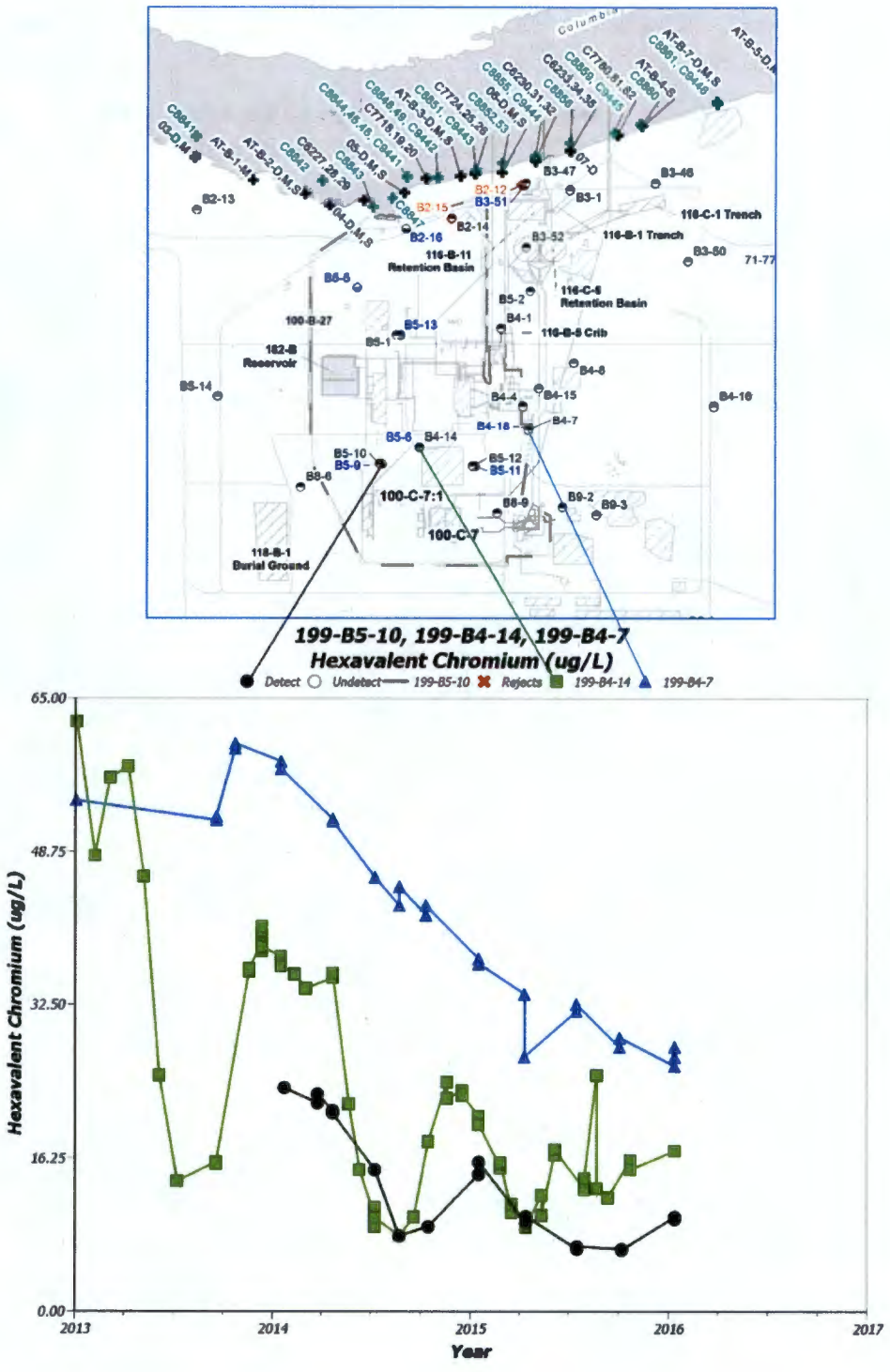


Figure BC-1. Hexavalent Chromium Concentrations in Central 100-BC.

100-NR-2 Groundwater Operable Unit – Bill Faught/Virginia Rohay/Art Lee

- CERCLA Process Implementation
  - ✓ Revised Chapter 6 red-lines and the associated RCR form (incorporating the new waste sites) were provided to Ecology for review on February 9, 2015. Comments on this revised text arrived from Ecology on May 21, 2015. Responses continue to be shared.
  - ✓ Revised Chapter 7 red-lines and the associated RCR form were completed and sent to Ecology February 26, 2015. We anticipate resolving the single remaining comment within the extension period (March 2016).
  - ✓ The numerical modeling performed for Draft A has been revised and the ECF completed. Chapter 5 is through publications and is ready for RL review.
  - ✓ The project extension for comment response has been received and runs through March 31, 2016.
- Remedial Actions

Bioventing –

- ✓ Figure NR-1 presents bioventing well gas sample results for monitoring wells 199-N-171 and 199-N-169. Monthly vapor sample measurements were collected on December 22, 2015. The next low river respirometry test started on January 11, 2016.
- ✓ The bioventing system was shut down on January 11, 2016, in support of the semi-annual respirometry testing event for the low river period. The test is planned to run for 6 weeks. Figure NR-1 provides a chart showing bioventing well gas sample results for monitoring wells 199-N-171 and 199-N-169. Monthly vapor sample measurements for January were taken prior to shutting down the system. Monthly measurements do not indicate significant biodegradation activity at well 199-N-169 which will be further evaluated in the respirometry test.

  Daily vapor samples were collected the first week from 6 monitoring wells (199-N-167, 199-N-169, 199-N-171, 199-N-172, 199-N-183, and 199-N-18). Samples will be collected once a week for the remainder of the test. Vapor sample data for the first week of sampling is provided in Table NR-1.

Product Recovery –

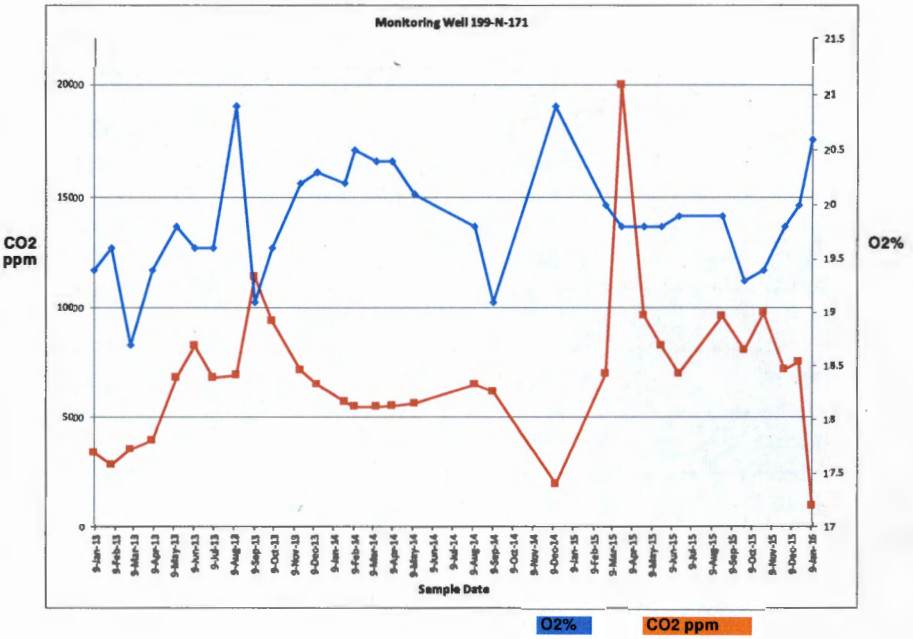
- ✓ The next smart sponge assembly change out is scheduled for February following the respirometry test.

Aquifer Tubes –

- ✓ Tubes C7934, C7935, and C7936 are located adjacent to one another (Figure NR-2), with screens at depths of 14.41 ft. (C7934), 18.75 ft. (C7935), and 29.19 ft. (C7936). All three aquifer tubes were sampled on January 19, 2016. Tritium and strontium-90 concentration trends through December 15, 2015, are shown in Figures NR-3 and NR-4, respectively. As of February 2, the January 2016 data are not available in HEIS.
- ✓ The RCRA monitoring wells scheduled for September 2015 were sampled in September. The RCRA monitoring well (199-N-2) that had pump electrical issues has been repaired. The next sampling event is scheduled for March 2016.

Well 199-N-171

Well #	Date	O2%	CO2 ppm
199-N-17	9-Jan-13	19.4	3400
	5-Feb-13	19.6	2840
	6-Mar-13	18.7	3570
	8-Apr-13	19.4	3960
	15-May-13	19.8	6820
	12-Jun-13	19.6	8290
	10-Jul-13	19.6	6800
	14-Aug-13	20.9	6940
	11-Sep-13	19.1	11400
	8-Oct-13	19.6	9380
	21-Nov-13	20.2	7160
	16-Dec-13	20.3	6520
	27-Jan-14	20.2	5720
	11-Feb-14	20.5	5520
	17-Mar-14	20.4	5520
	9-Apr-14	20.4	5560
	14-May-14	20.1	5670
	13-Aug-14	19.8	6520
	10-Sep-14	19.1	6180
	15-Dec-14	20.9	2000
	1-Mar-15	20	7020
	25-Mar-15	19.8	20000
	29-Apr-15	19.8	9650
	26-May-15	19.8	8260
	22-Jun-15	19.9	7000
	27-Aug-15	19.9	9620
	30-Sep-15	19.3	8070
	29-Oct-15	19.4	9770
	30-Nov-15	19.8	7200
	22-Dec-15	20	7510
	11-Jan-16	20.6	1000



Well 199-N-169

Well #	Date	O2%	CO2 ppm
199-N-16	9-Jan-13	20.9	0
	5-Feb-13	20.9	0
	6-Mar-13	20.9	0
	8-Apr-13	20.9	0
	15-May-13	20.9	800
	12-Jun-13	20.9	780
	#1 10-Jul 13	20.5	1020
	#2 10-Jul 13	20.9	920
	14-Aug-13	20.9	530
	11-Sep-13	20.9	1250
	8-Oct-13	20.9	550
	21-Nov-13	21.3	600
	16-Dec-13	20.9	530
	27-Jan-14	20.9	500
	11-Feb-14	20.9	550
	17-Mar-14	20.9	470
	9-Apr-14	20.9	660
	14-May-14	20.9	840
	13-Aug-14	20.9	520
	10-Sep-14	20.9	410
	15-Dec-14	21	100
	1-Mar-15	20.9	360
	25-Mar-15	20.9	325
	29-Apr-15	20.9	410
	26-May-15	20.9	460
	22-Jun-15	21	0
	27-Aug-15	21.4	330
	30-Sep-15	20.9	530
	29-Oct-15	20.9	360
	30-Nov-15	20.9	460
	22-Dec-15	20.9	490
	11-Jan-16	20.9	0

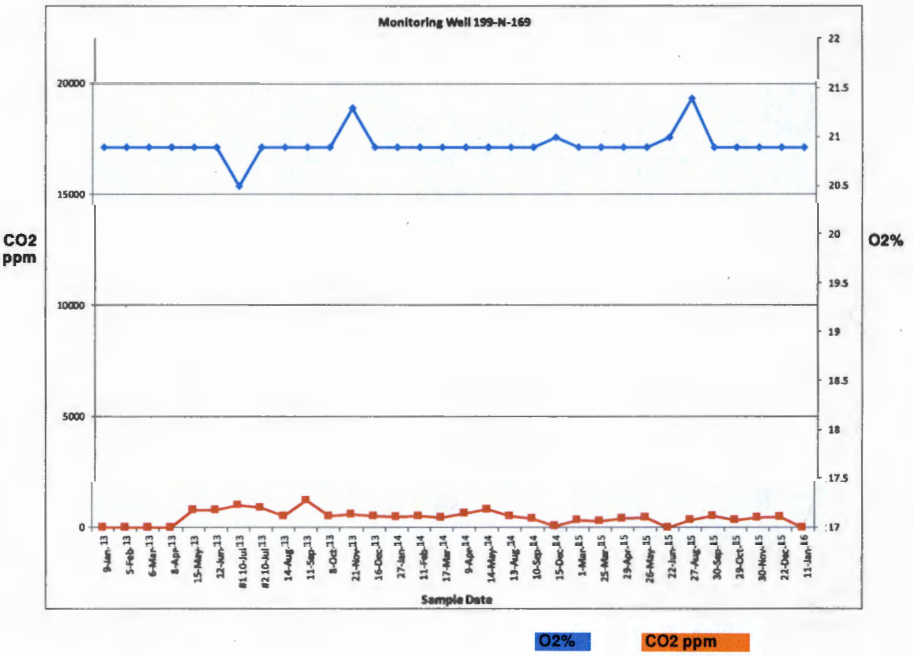


Figure NR-1. Bioventing Wells 199-N-169 and 199-N-171 Monthly Sampling Results.

Table NR-1 – Respirometry Test Vapor Sample Data

Well Name	Sample Date / Time	O_2 (%)	CO_2 (%)
199-N-167	1/11/2016 / 9:11	21.1	0
199-N-167	1/11/2016 / 10:22	21.2	0
199-N-167	1/11/2016 / 12:07	20.8	0
199-N-167	1/11/2016 / 14:06	21	0
199-N-167	1/12/2016 / 10:14	21	0.1
199-N-167	1/13/2016 / 10:02	20.9	0.1
199-N-167	1/14/2016 / 10:14	21.2	0
199-N-167	1/18/2016 / 4:19	20.9	0
199-N-167	1/26/2016 / 10:38	20.6	0.1
199-N-167	2/3/2016 / 9:58	19.9	0.1
199-N-169	1/11/2016 / 8:54	20.9	0
199-N-169	1/11/2016 / 9:05	21	0
199-N-169	1/11/2016 / 10:10	21.2	0
199-N-169	1/11/2016 / 12:00	20.7	0
199-N-169	1/11/2016 / 14:00	20.7	0
199-N-169	1/12/2016 / 10:08	20.9	0
199-N-169	1/13/2016 / 9:55	20.7	0
199-N-169	1/14/2016 / 10:05	20.8	0.1
199-N-169	1/18/2016 / 10:06	20.3	0.1
199-N-169	1/26/2016 / 10:45	19.4	0.3
199-N-169	2/3/2016 / 9:52	17.6	0.5
199-N-171	1/11/2016 / 8:08	20.6	0.1
199-N-171	1/11/2016 / 9:22	20.3	0.6
199-N-171	1/11/2016 / 10:33	20.3	0.7
199-N-171	1/11/2016 / 12:18	20	0.7

Table NR-1 – Respirometry Test Vapor Sample Data

Well Name	Sample Date / Time	O_2 (%)	CO_2 (%)
199-N-171	1/11/2016 / 14:17	20.1	0.7
199-N-171	1/12/2016 / 9:35	19.9	0.8
199-N-171	1/13/2016 / 9:15	18.7	1
199-N-171	1/14/2016 / 9:05	19.3	0.9
199-N-171	1/18/2016 / 9:16	18.3	1.4
199-N-171	1/26/2016 / 9:54	16.5	2.2
199-N-171	2/3/2016 / 9:05	13.0	3.7
199-N-172	1/11/2016 / 9:58	21.2	0
199-N-172	1/11/2016 / 11:10	21.2	0
199-N-172	1/11/2016 / 12:55	21	0
199-N-172	1/11/2016 / 14:52	21.1	0
199-N-172	1/12/2016 / 9:57	21.1	0.1
199-N-172	1/13/2016 / 9:44	20.9	0.1
199-N-172	1/14/2016 / 9:55	21	0.1
199-N-172	1/18/2016 / 9:56	20.7	0.1
199-N-172	1/26/2016 / 10:27	20.8	0.1
199-N-172	2/3/2016 / 9:11	20.3	0.1
199-N-183	1/11/2016 / 8:14	20.5	0
199-N-183	1/11/2016 / 9:29	21.1	0
199-N-183	1/11/2016 / 10:40	21.2	0
199-N-183	1/11/2016 / 12:25	21	0
199-N-183	1/11/2016 / 14:24	21.1	0
199-N-183	1/12/2016 / 9:23	20.9	0.1
199-N-183	1/13/2016 / 9:17	20.7	0.1
199-N-183	1/14/2016 / 9:12	20.9	0.1

Table NR-1 – Respirometry Test Vapor Sample Data

Well Name	Sample Date / Time	O_2 (%)	CO_2 (%)
199-N-183	1/18/2016 / 9:27	20.5	0
199-N-183	1/26/2016 / 9:59	21.0	0.1
199-N-183	2/3/2016 / 9:18	21.1	0.1
199-N-18	1/11/2016 / 8:30	20.7	0.1
199-N-18	1/11/2016 / 9:41	21.2	0
199-N-18	1/11/2016 / 10:52	21.2	0
199-N-18	1/11/2016 / 12:37	20.9	0
199-N-18	1/11/2016 / 14:36	20.9	0
199-N-18	1/12/2016 / 9:41	21	0.1
199-N-18	1/13/2016 / 9:28	20.8	0.1
199-N-18	1/14/2016 / 9:28	20.9	0.1
199-N-18	1/18/2016 / 9:39	20.7	0.1
199-N-18	1/26/2016 / 10:11	21.0	0.1

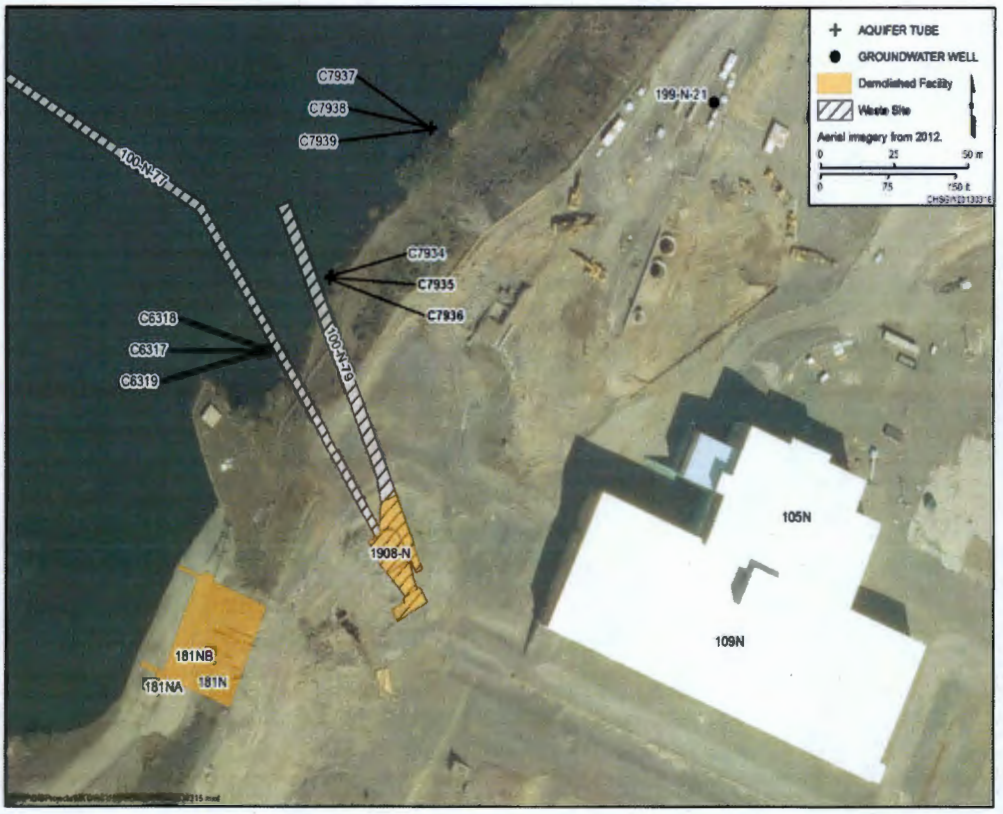


Figure NR-2. Locations of Aquifer Tubes C7934, C7935, and C7936.

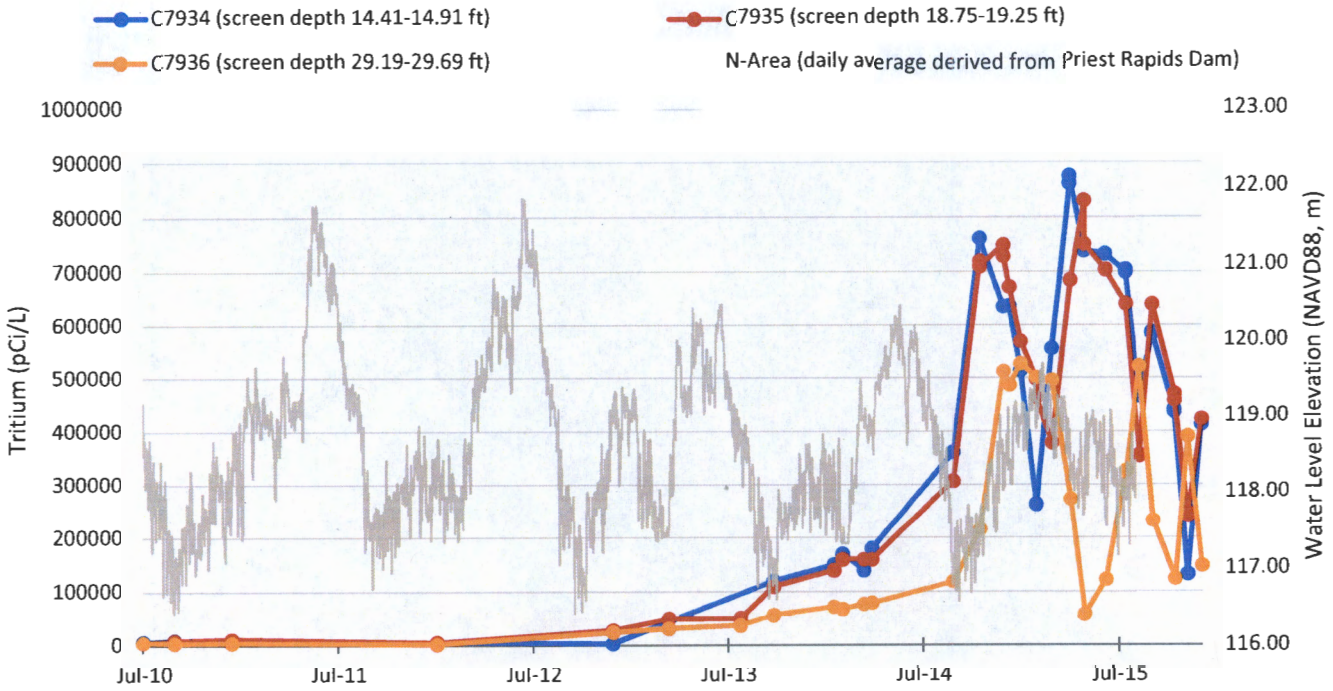


Figure NR-3. Tritium Trends through December 2015 at Aquifer Tubes C7934, C7935, and C7936.

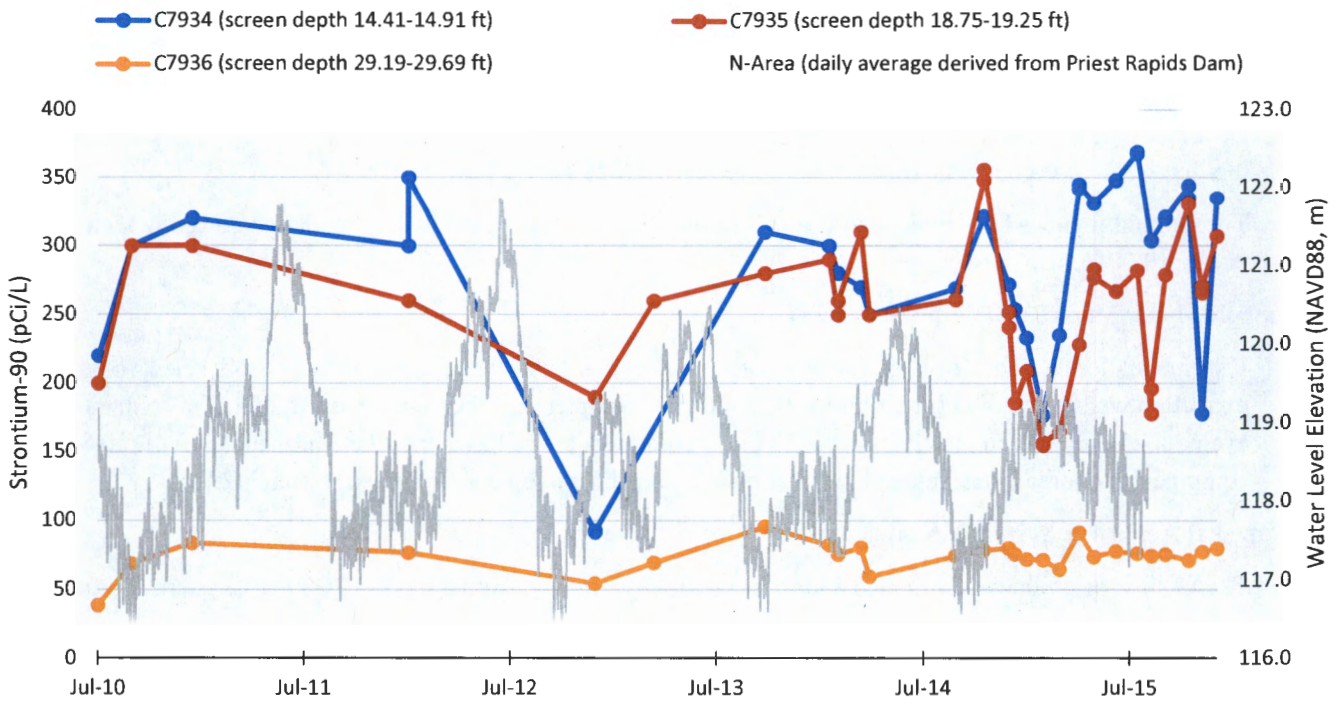


Figure NR-4. Strontium-90 Trends through December 2015 at Aquifer Tubes C7934, C7935, and C7936.

100-HR-3 Groundwater Operable Unit – Mike Drewett/Kris Ivarson

- CERCLA Process Implementation:
  - ✓ EPA legal comments were received on November 9, 2015. RL is reviewing comments for required changes/updates to the PP. Working towards meeting proposed issuance of PP to public later in 2016.
  - ✓ Interim RD/RAWP, Interim Monitoring Plan, and Interim O&M Plan, Draft A plans were transmitted to Ecology on September 30, 2014. All comments have been resolved or conceptual agreement reached. Working towards February 2016 submittal of Rev. 0 for all three documents.
- FY16 Drilling Progress
  - ✓ Drilling of the seven (7) WCH replacement wells started on January 18, 2016. Well 199-D5-149 was constructed the first week of February 2016. Drilling started on Well 199-H4-89 on January 27, 2016.
  - ✓ The cultural reviews for the planned FY16 well installation are ongoing, with completion currently anticipated in late April 2016.
- Ringold Upper Mud (RUM) Aquifer Pump Test
  - ✓ Instrumentation has been ordered for monitoring water levels and specific conductance from select monitoring and extraction wells, including both RUM wells and wells completed in the unconfined aquifer. This will enable an evaluation of aquifer connectivity between the two aquifers as well as across the confined aquifer unit. Some equipment has already arrived and installation is planned for late February or early March 2016.
- Remedial Actions & System Modifications
  - ✓ The volume of groundwater treated and mass of Cr(VI) removed from the 100-HR-3 P&T systems during January 2016 are:
    - Treated: 52.1 million gallons (53.6 in December)
    - Removed: 8 kg of Cr(VI) (8.67 in December)
  - ✓ FY 2016 (Oct. through Jan.) P&T performance to date:

P&T System	Treated (mgal)	Removed (kg)
DX	134	27.2
HX	76.6	8.9
TOTAL	210.7	36.0

✓ The influent and effluent Cr(VI) concentrations (measured weekly) for the 100-HR-3 systems during January are presented in Table H-1.

Table H-1. Monthly Summary of Influent and Effluent Concentrations at the 100-HR-4 P&T Systems

System	Weekly Influent Concentrations[a] (µg/L)	Average Monthly Influent Concentration (µg/L)	Weekly Effluent Concentrations[a] (µg/L)	Average Monthly Effluent Concentration (µg/L)
100-DX	40, 41, 41, 49, 46, 43, 43, 44, 41	43.1	3, 2,0, 3, 4, 1.7, 1.5,1.5, 1	1.97
100-HX	31, 30, 28	29.7	1, 1, 2	1.3

c. Concentrations provided represent samples taken during the current month and loaded into HEIS as of the publication of the UMM.

✓ A summary of the number of extraction and injection wells in the DX and HX P&T systems is shown in Table H-2. Figure H-1 illustrates the monthly average pumping rates for operating extraction wells across the DX and HX P&T systems.

Table H-2. Summary of the Number of Extraction and Injection Wells in the 100-HR-3 Systems

Wells	DX		HX		Total
	2014	2015	2014	2015	Current
Number of extraction wells	44	46	31	34	80
Number of injection wells	14	11	14	16	27

Notes:
DX system Well 199-D8-55 was not used for injection in 2014, but was operational as an extraction well
Four injection wells for DX are remain connected, but are not counted in 2015 since they are not operating.

✓ Realignments for FY16 are in planning stages.

✓ Hexavalent chromium in extraction wells near the remediated 100-D-100 waste site have dropped dramatically. Cr(VI) in extraction Well 199-D5-104 was measured at 150 µg/L on January 7, 2016, with concentration still declining. This well exhibited greater than 2,000 µg/L hexavalent chromium just prior to the 100-D-100 remediation.

✓ Summaries of the volume of groundwater treated and Cr(VI) removed for the 100-DX and 100-HX pump-and-treat systems are shown in Figures H-2 and H-3, respectively.

✓ A general reduction in Cr(VI) mass removal over time, a function of progress of remediation with associated reduction in groundwater contaminant concentration, is exhibited at both DX and HX. The drop in concentrations is more pronounced at DX, where concentrations were previously at very high levels. Influent concentrations at DX continue to decline as remediation progresses.

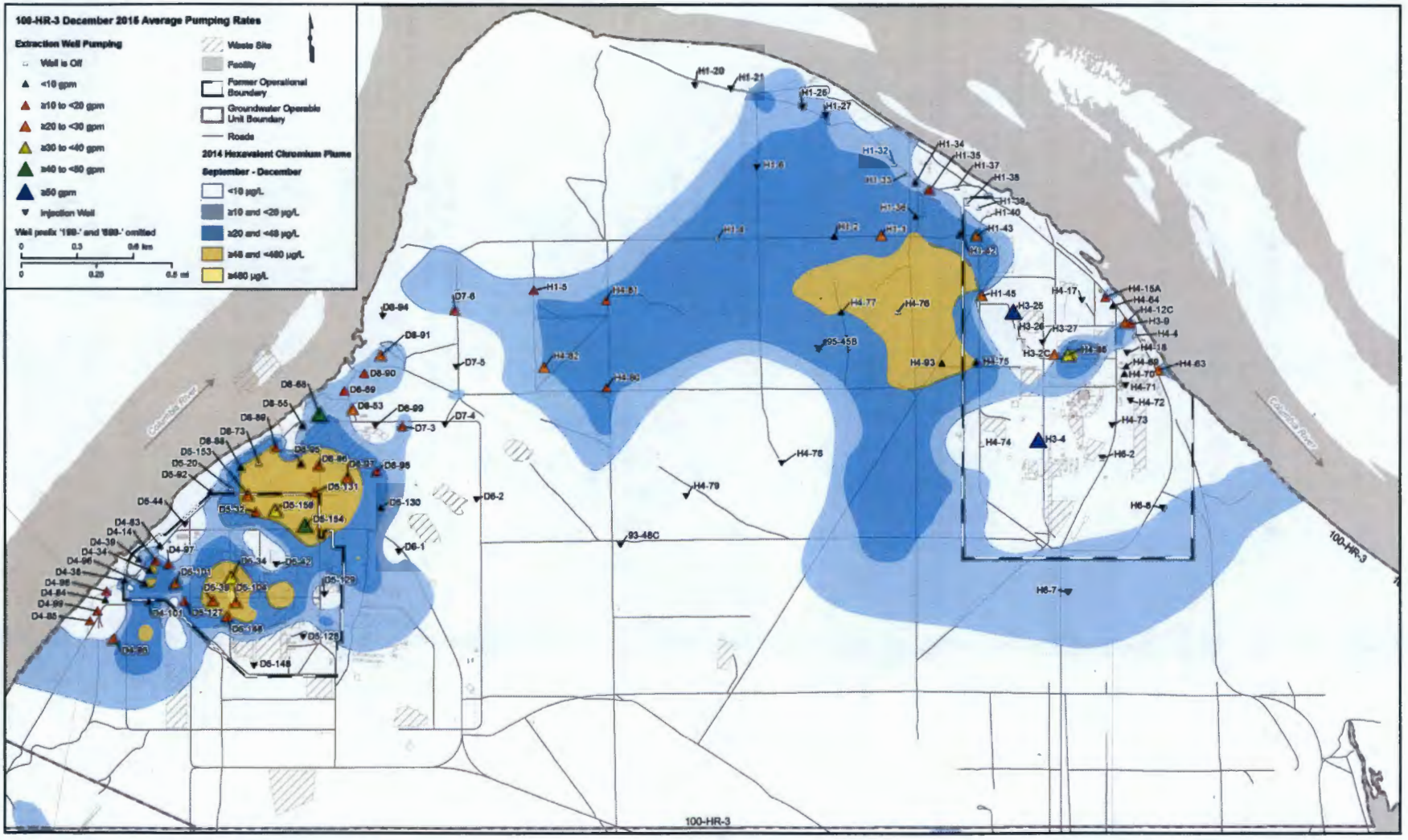


Figure H-1. December 2015 Average Pumping Rates for the 100-HR-3 P&T Systems

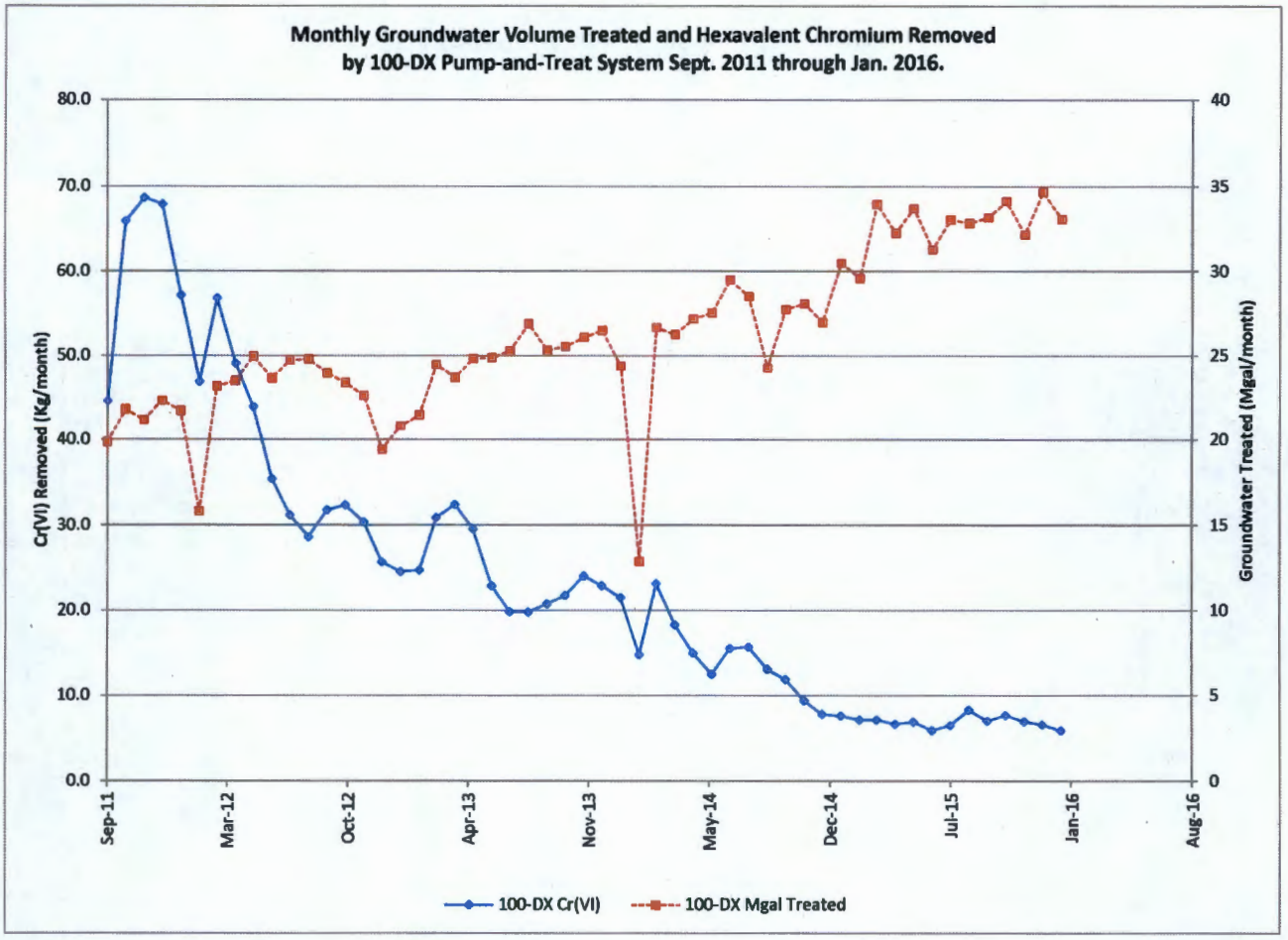


Figure H-2. Monthly Cr(VI) Removed and Groundwater Volume Treated by 100-DX Pump-and-Treat, September 2011 through January 2016.

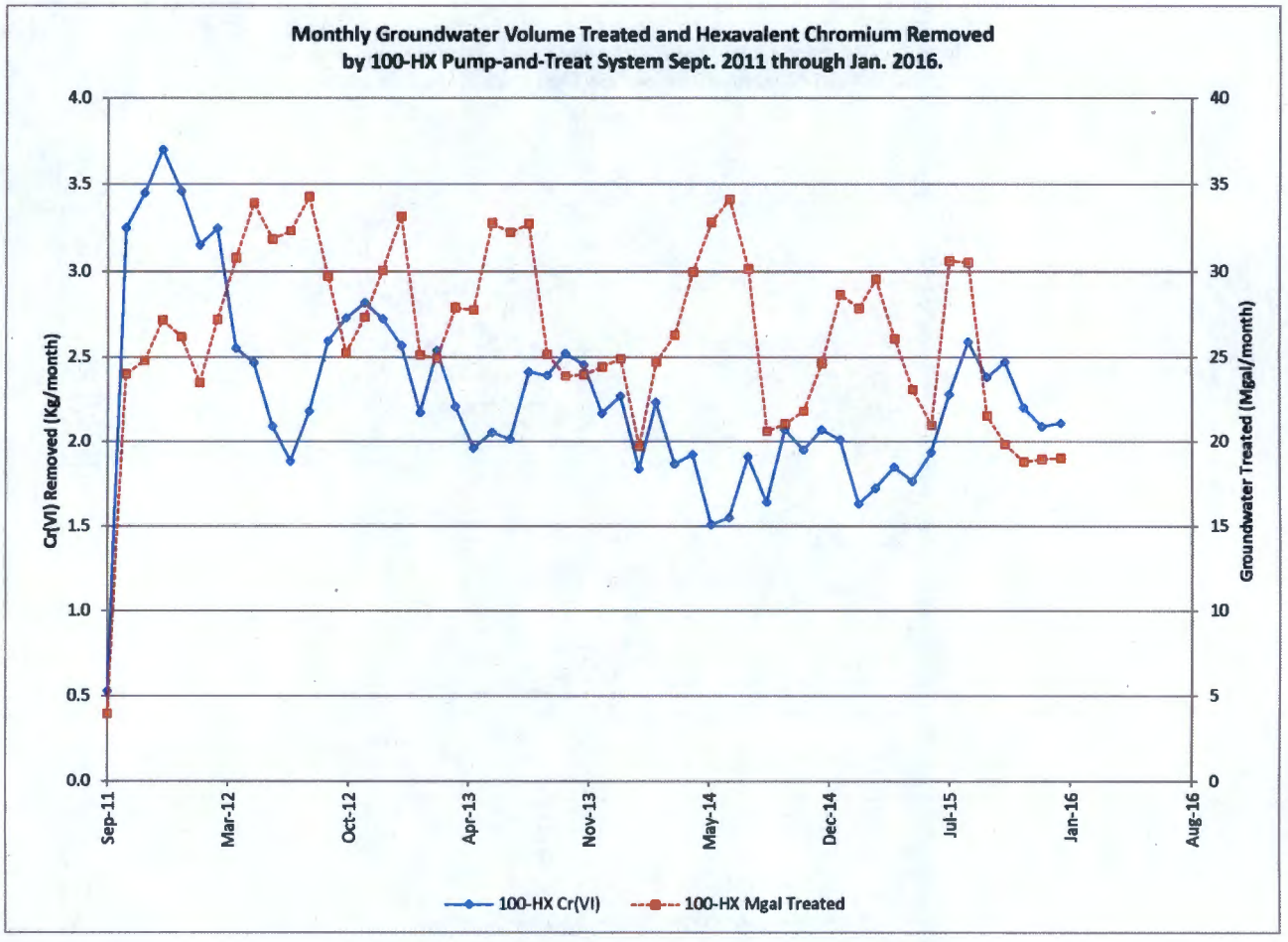


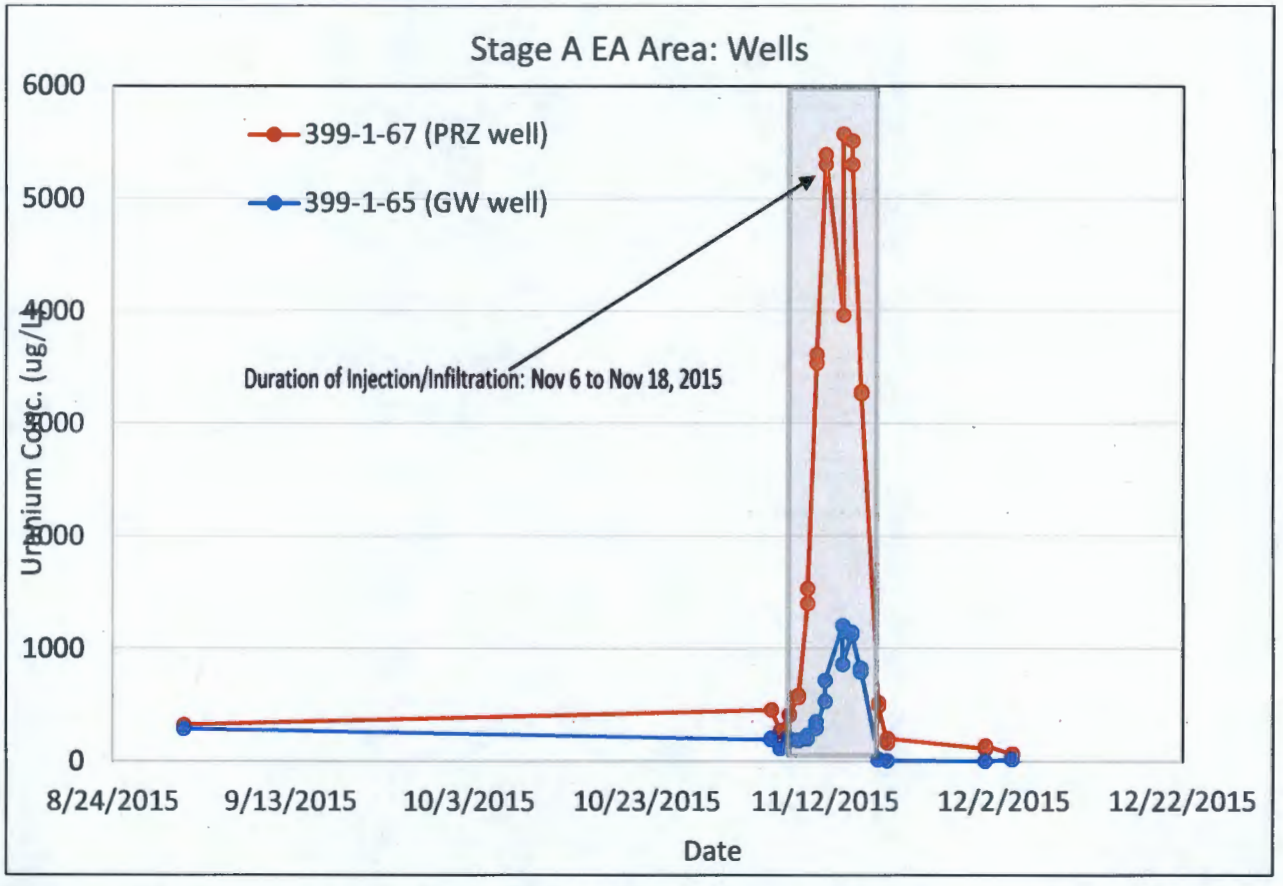
Figure H-3. Monthly Cr(VI) Removed and Groundwater Volume Treated by 100-HX Pump-and-Treat, September 2011 through January 2016.

100-FR-3 Groundwater Operable Unit – Robert Evans/Mary Hartman

- CERCLA Process Implementation:
  - ✓ The Description of Work for installation of 8 new monitoring wells associated with the remedial action was released in January.
  - ✓ TPA-CN-708 for DOE/RL-2014-44-ADD2, *Remedial Design Report/Remedial Action Work Plan Addendum for the 100-F/IU Groundwater*, was signed in January. It updates the Waste Management Plan to include an additional well, a seep, and the 100-F river gauge.
- Monitoring & Reporting:
  - ✓ Nothing to report. The next sampling event is scheduled for June (5 semiannual wells).

300-FF-5 Groundwater Operable Unit – Patrick Baynes/Virginia Rohay/Randy Hermann

- CERCLA Process Implementation:
  - ✓ Well-specific and contaminant-specific evaluations have begun using groundwater data through CY2015 to assess the progress toward, and attainment of, remedial action objectives for the long-term groundwater monitoring network.
- Remedial Actions:
  - ✓ Initial performance indicators are positive for uranium sequestration after completion of the polyphosphate infiltration and injections in the 0.75 acre Stage A enhanced attenuation area. The long-term permanence of the sequestration treatment is dependent on the current meta-stable compounds eventually forming stable minerals, depending on contact time. The efficacy of the sequestration process will be evident after longer-term groundwater results are available.
  - ✓ Three boreholes were drilled and sampled in January. The samples have been provided to PNNL for leachability analyses. The current schedule is to have the final analysis reports issued in May 2016.
  - ✓ During polyphosphate infiltration and injection (11-6-15 through 11-18-15), the highest uranium concentrations were observed in PRZ well 399-1-67 (Figure 300-1). Uranium concentrations are lower in the adjacent aquifer well 399-1-65. The higher concentration in the PRZ well is attributed to rewetting of the vadose zone, leaching of uranium, and mixing of leached uranium mass within limited water volume within the PRZ well.



✓

Figure 300- 1. Uranium Concentrations Observed in a PRZ/Aquifer Well Pair during Polyphosphate Application in the Stage A Enhanced Attenuation (EA) Area.

- ✓ Preliminary data provided by PNNL from groundwater monitoring wells downgradient from the Stage A EA area show declining concentrations during this initial phase of phosphate contact with the sediments. This data are undergoing QC/QA review and will be loaded into HEIS after completion of the review.
- ✓ Stage A summary of preliminary, short-term observations regarding Stage A uranium sequestration:
  - Initial meta-stable amorphous phosphate minerals appear to be sequestering uranium as expected
  - Long-term sequestration performance will be evident after stable phosphate minerals have had time to form and will be gauged with future groundwater monitoring events.
  - Higher uranium concentrations within some Stage A EA area wells is attributed to rewetting of the vadose zone from infiltration and leaching of uranium.
  - Effects were local and restricted to the Stage A EA area.
  - Elevated uranium concentrations (i.e., higher than pre-treatment concentrations) were not observed in the aquifer downgradient of the Stage A EA area.

- Monitoring & Reporting:
  - ✓ 300 Area Industrial Complex: The next sampling event is scheduled for March 2016.
  - ✓ 618-10 Burial Ground/316-4 Crib: The next sampling event is scheduled for December 2016.
  - ✓ 618-11 Burial Ground: The next sampling event is scheduled for October 2016.
  - ✓ 300 Area Process Trenches (316-5) RCRA Monitoring: All 8 wells were sampled on January 13, 2016. The next sampling event is scheduled for February 2016.

Hanford Sampling Program Information

Table 1 Wells, Aquifer Tubes, and Springs in River Corridor Successfully Sampled in January 2016

100-BC	100-FR	100-HR-D	100-HR-H	100-KR	100-NR	1100-EM	300-FF
199-B4-14	699-87-42A	199-D4-101	199-H4-6	199-K-117A	C7934		399-1-10A
199-B4-16		199-D4-19	199-H4-92	199-K-166	C7935		399-1-10B
199-B4-18		199-D4-26	199-H4-93	199-K-173	C7936		399-1-16A
199-B4-7		199-D4-55	199-H5-16	199-K-18			399-1-16B
199-B5-10		199-D4-65	699-100-43B	199-K-20			399-1-17A
199-B5-11		199-D4-77	699-88-41	199-K-202			399-1-17B
199-B5-12		199-D4-86	699-89-35	199-K-205			399-1-18A
199-B5-13		199-D4-92	699-90-37B	199-K-207			399-1-18B
199-B5-14		199-D4-93	699-97-47B	199-K-221			699-13-3A
199-B5-6		199-D4-95	699-97-60	199-K-222			
199-B5-9		199-D4-96		C7641			
199-B8-9		199-D4-97		C7642			
		199-D4-98		C7643			
		199-D4-99					
		199-D5-101					
		199-D5-103					
		199-D5-104					
		199-D5-127					
		199-D5-13					
		199-D5-130					
		199-D5-14					
		199-D5-145					
		199-D5-146					
		199-D5-153					
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		199-D5-159					
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		199-D5-33					
		199-D5-34					
		199-D5-36					
		199-D5-37					
		199-D5-39					
		199-D8-101					
		199-D8-4					
		199-D8-89					
		699-97-61					

Table 2 Fiscal Year 2015 and 2016 Sample Trips in River Corridor Awaiting at End of January 2016

Quarter Scheduled	GWIA	Sample Type	Site Name	Schedule Date	Frequency	Months Remain	Status	Comment
FY 2015 Q1	100-KR	SPRING	SK-077-1	10/1/2014	Annual	0	Late	Review for Cancelation
FY 2015 Q3	100-HR-D	AQUIFER TUBE	DD-39-1	5/1/2015	Biannual	0	Late	Canceled
FY 2015 Q4	100-NR	WELL	199-N-333	9/1/2015	Quarterly	0	Late	Sample Dry, Review for Cancelation
		WELL	199-N-343	9/1/2015	Annual	7		Sample Dry, Review for Cancelation
		AQUIFER TUBE	C6134	7/20/2015	Annual	5		Access Restricted
		AQUIFER TUBE	C6331	9/1/2015	Annual	7		
		AQUIFER TUBE	N116mArray-0A	7/20/2015	Quarterly	0	Late	Review for Cancelation
		AQUIFER TUBE	N116mArray-0A	9/1/2015	Quarterly	0	Late	Canceled
FY 2016 Q1	100-HR-D	AQUIFER TUBE	36-M	11/1/2015	Annual	9		
	100-HR-H	WELL	199-H1-8	10/1/2015	Quarterly	0	Late	Canceled
	100-KR	SPRING	100-K SPRING 68-1	10/1/2015	Annual	8		
		WELL	199-K-124A	11/1/2015	Biannual	3		Canceled
		WELL	199-K-188	11/1/2015	Quarterly	0	Late	Review for Cancelation
		WELL	199-K-23	11/1/2015	Biannual	3		
		WELL	199-K-36	11/1/2015	Biannual	3		Bioremediation, Adjusted Schedule
		AQUIFER TUBE	AT-K-4-M	10/1/2015	Annual	8		
	100-NR	SPRING	River water adjacent to C6317/18/19	10/1/2015	Annual	8		
		SPRING	River water adjacent to C7934/35/36	10/1/2015	Annual	8		
		SPRING	River water adjacent to C7937/38/39	10/1/2015	Annual	8		
	1100-EM	WELL	699-S30-E15A	12/1/2015	Annual	10		Maintenance Required
FY 2016 Q2	100-HR-D	WELL	199-D5-20	1/1/2016	Quarterly	2		P&T Configuration
	100-HR-H	WELL	199-H1-8	1/1/2016	Quarterly	2		Canceled
		WELL	699-101-45	1/1/2016	Quarterly	2		
		WELL	699-90-38	1/1/2016	Quarterly	2		Sample Dry, Review for Cancelation
	100-NR	WELL	199-N-167	1/11/2016	Biannual	5		Bioremediation, Adjusted Schedule
		WELL	199-N-169	1/11/2016	Biannual	5		Bioremediation, Adjusted Schedule
		WELL	199-N-171	1/11/2016	Other	4		Bioremediation, Adjusted Schedule
		WELL	199-N-172	1/11/2016	Biannual	5		Bioremediation, Adjusted Schedule

100/300 Areas Unit Managers Meeting
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Quarter Scheduled	GWIA	Sample Type	Site Name	Schedule Date	Frequency	Months Remain	Status	Comment
		WELL	199-N-173	1/11/2016	Other	4		Bioremediation, Adjusted Schedule
		WELL	199-N-183	1/11/2016	Biannual	5		Bioremediation, Adjusted Schedule
		WELL	199-N-19	1/11/2016	Biannual	5		Bioremediation, Adjusted Schedule
		WELL	199-N-3	1/11/2016	Other	1		Bioremediation, Adjusted Schedule
		WELL	199-N-56	1/11/2016	Biannual	5		Bioremediation, Adjusted Schedule
		WELL	199-N-96A	1/11/2016	Other	4		Bioremediation, Adjusted Schedule
		AQUIFER TUBE	C6132	1/11/2016	Other	1		
		AQUIFER TUBE	C6135	1/11/2016	Biannual	5		
		AQUIFER TUBE	N116mArray-0A	1/11/2016	Quarterly	2		
	300-FF	WELL	699-13-1A	1/1/2016	Annual	11		
		WELL	699-13-1C	1/1/2016	Annual	11		

Table 3 Groundwater Sampling Locations in River Corridor Scheduled to be Smpled in February 2016

100-BC	100-FR	100-HR-D	100-HR-H	100-KR	100-NR	1100-EM	300-FF
		199-D2-11	199-H1-32	199-K-106A	C7934		399-1-10A
		199-D3-5	199-H1-33	199-K-107A	C7935		399-1-10B
		199-D4-39	199-H1-35	199-K-108A	C7936		399-1-16A
		199-D5-103	199-H1-37	199-K-111A			399-1-16B
		199-D5-104	199-H1-38	199-K-140			399-1-17A
		199-D5-106	199-H1-40	199-K-141			399-1-17B
		199-D5-132	199-H1-7	199-K-157			399-1-18A
		199-D5-133	199-H2-1	199-K-168			399-1-18B
		199-D5-142	199-H3-10	199-K-184			699-10-E12
		199-D5-143	199-H3-11	199-K-185			
		199-D5-145	199-H3-3	199-K-186			
		199-D5-146	199-H3-4	199-K-187			
		199-D5-147	199-H3-5	199-K-188			
		199-D5-34	199-H3-6	199-K-189			
		199-D5-39	199-H3-7	199-K-190			
		199-D5-40	199-H3-9	199-K-191			
		199-D5-92	199-H4-11	199-K-192			
		199-D5-97	199-H4-12A	199-K-193			
		199-D6-3	199-H4-12C	199-K-194			
		199-D8-71	199-H4-15A	199-K-196			
		699-93-48A	199-H4-16	199-K-197			
		699-95-48	199-H4-4	199-K-198			
		699-95-51	199-H4-46	199-K-199			
		699-96-52B	199-H4-47	199-K-200			
		699-97-51A	199-H4-49	199-K-201			
		699-98-49A	199-H4-65	199-K-208			
		699-98-51	199-H4-84	199-K-209			
			199-H4-85	199-K-210			
			199-H4-86	199-K-212			
			199-H5-1A	199-K-220			
			699-94-41	199-K-32A			
			699-94-43	199-K-34			
			699-95-45	699-78-62			
			699-97-41				
			699-98-46				
			699-99-41				
			699-99-44				

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Documents for AR Submission

Number	Title	Referencing Doc/Driver
DOE/RL-2005-05 , 2005	Treatability Test Plan for Fixation of Chromium in the Groundwater at 100-K, Rev. 0	ref'd in DOE/RL-97-01 Rev. 6
PNL-SA-23121 S, 1993	Hanford Technical Exchange Program: Process Chemistry at Hanford (Genesis of Hanford Wastes).	ref'd in 2015 Annual GW Report DOE/RL-2016-09
EMO-1026, 1991	Addendum to Data Compilation Task Report for the Source Investigation of the 300-FF-1 Operable Unit Phase I Remedial Investigations, Pacific Northwest Laboratory, Environmental Management Operations.	ref'd in 2015 Annual GW Report DOE/RL-2016-09
ECF-300FF5-11-0151, 2012	Groundwater Flow and Uranium Transport Modeling in Support of the 300 Area FF-5 RI/FS, Rev. 3	ref'd in DOE/RL-2016-12 2015 RCRA Report
BHI-01298, 1999	300-FF-1 Operable Unit, North Process Pond/Scraping Disposal Area Verification Package, Rev. 0	ref'd in SGW-59675 R0
SGW-57571 R0, 2014	Plume Containment and Remediation Utilization Plan	ref'd in DOE/RL-2013-35-ADD6, R0
DOE/RL-2013-29, DA, 2015	Sampling and Analysis Plan for 100-KR-4 Groundwater Operable Unit Monitoring	ref'd in DOE/RL-2013-36-ADD3, Rev. 0
DOE/RL-2013-35-ADD7, R0	100-HR-3 Groundwater Operable Unit Well Installation Sampling and Analysis Plan, Addendum 7: Wells (199-D5-160, 199-D5-161, 199-D8-102, 699 97 47C, 699-88-41A, 699-93-37A,	cleared Feb. 2016
DOE/RL-2013-35-ADD8, R0	100-HR-3 Groundwater Operable Unit Well Installation Sampling and Analysis Plan, Addendum 8: Wells 199-D4-102 and 199-D4-103	cleared Feb. 2016

Attachment 3

100K Area Report
100/300 Area Unit Manager Meeting
February 11, 2016

RL-0012 Sludge Treatment Project

TPA Milestone **M-016-177**, *Complete 105-KW sludge transfer equipment installation.*
(**9/30/17**) – On Schedule

- Statements of Work for ECRTS equipment procurement have been grouped into 20 separate procurement sets. Ten procurement sets are in progress, eight have been completed, one remains to be developed, and one has been canceled.
- The first 1 of 24 total STCSs has been fabricated and received. The fabrication contractor continues work on task 2 which includes the delivery of 12 STSCs in 2016.
- Draft Preliminary Documented Safety Analysis (PDSA) comment resolutions have been provided to RL for concurrence. KW Basin integrated Documented Safety Analysis (DSA) development has begun. The integrated DSA combines the ECRTS PDSA and the KW Basin Final Safety Analysis Report into a single safety basis document.
- Review of K West Basin Annex construction quality records in preparation for Construction Completion Documentation and Turnover continued.
- The construction subcontractor continued Engineered Container re-lidding in the K West Basin.

TPA Milestone **M-016-175**, *Begin sludge removal from 105-KW Fuel Storage Basin*
(**9/30/18**) – On Schedule

- Preparation of ECRTS test specifications and production hardware for the upcoming MASF Pre-operational test (MPAT) are in-progress

TPA Milestone **M-016-176**, *Complete sludge removal from 105-KW Fuel Storage Basin*
(**12/31/19**) – On Schedule

- Initiation of this milestone follows completion of Milestone M-016-175.

TPA Milestone **M-016-178**, *Initiate deactivation of 105-KW Fuel Storage Basin.*
(**12/31/19**) – On Schedule

- The following pre-deactivation actions are underway:
    - Integrated Water Treatment System garnet filter media removal system design continues.
    - Sand filter backwash solids sample analyses being performed by PNNL are nearly complete and a summary letter report is being prepared.
    - Dose to curie modeling of basin below-water debris modeling is approximately 50% complete. Characterization activities will re-commence up completion of Engineered Container re-lidding. This characterization data will become a key input to the calculation to demonstrate compliance with ERDF waste acceptance criteria for 105-KW Basin.

TPA Milestone **M-016-173,** *Select K Basin sludge treatment and packaging technology and propose new interim sludge treatment and packaging milestones.*
(**9/30/22**) – On Schedule

- The preliminary treatment and packaging site evaluation report and the remedial design/remedial action work plan (DOE/RL-2011-15) for sludge treatment and packaging have been issued.

TPA Milestone **M-016-181,** *Complete deactivation, demolition and removal of 105-KW Fuel Storage Basin*
(**9/30/23**) – On Schedule

TPA Milestone **M-016-186,** *Initiate soil remediation under the 105-KW Fuel Storage Basin.*
(**12/31/23**) – On Schedule

RL-0041 K Facility Demolition and Soil Remediation

TPA Milestone **M-016-143**, *Complete the interim response actions for 100 K Area within the perimeter boundary and to the Columbia River for Phase 2 actions. Phase 2 is defined in the 100 K Area RD/RA Work Plans.*
(**9/30/24**) – On Schedule

- Work on the 25 waste sites in the AB area near the 100KE head house continued in January. Most waste sites have been excavated to a depth of ten feet and in-process samples have been collected. The most recent in-process samples were collected on January 21, 2016, and results are being reviewed. Current excavation work is focusing on the largest waste site (100-K-101).

TPA Milestone **M-093-28**, *Submit a change package for proposed interim milestones for 105-KE and 105-KW Reactor Interim Safe Storage*
(**12/31/19**) - On Schedule

TPA Milestone **M-093-27**, *Complete 105-KE and 105-KW Reactor Interim Safe Storage in Accordance with the Removal Action Work Plan.*
(**9/302024**) - On Schedule

TPA Milestone **M-016-00C**, *Complete all response actions for the 100 K Area*
(**9/30/24**) - On Schedule

Attachment 4

February 11, 2016 Unit Manager's Meeting
Closure Operations Status

100 Area

- Completed all revegetation activities at 100-D.
- At 100-H, re-contouring and de-compaction is complete, tractor work (seeding, ring rolling, chisel plowing, spreading straw) is approximately 75% done, and planters are approximately 35% done.
- Started re-contouring and de-compaction at 100-B/C and 100-N.
- 100-N-83 proceeding as planned. Contaminated soil previously identified in URMA portion of site found and removed. Excavation (clearing/grubbing) in the CA portion is continuing.

618-10

Trench Remediation

- Continuing primary/secondary sorting, drum retrieval, and load-out.
- Continuing processing concreted waste drums in grout.
- Continuing NDA, drum and anomaly characterization activities.
- Excavation to retrieve drums near the VPU field is on hold so that augering of VPU in those areas can be completed.

VPU Remediation

- Twenty five (25) VPUs total have been augered, all in row 2 and now augering in rows 3 and 4. In-situ characterization has been completed on 15 VPU's in accordance with the SAP requirements.
- Results of the in-situ characterization have, thus far, shown that the ranking calculation has been conservative in regard to radiological contamination. This includes the highest ranked VPU in WCH's current remediation scope (VPU #45) which, so far, appears to have met the ERDF Waste Acceptance Criteria (data are still being evaluated).
- Low-Level Waste (LLW) retrieval mockups are in progress. The project plans to complete a readiness assessment in mid March and begin LLW retrieval by the end of March.

300 Area

324 Building

- Continuing with close out of the 300-296 AREVA contract.
- Contract transition with CHPRC expected in April.
- Continuing work with DOE and Ecology on RCRA Part A Permit and Closure Plan.

300-288:2

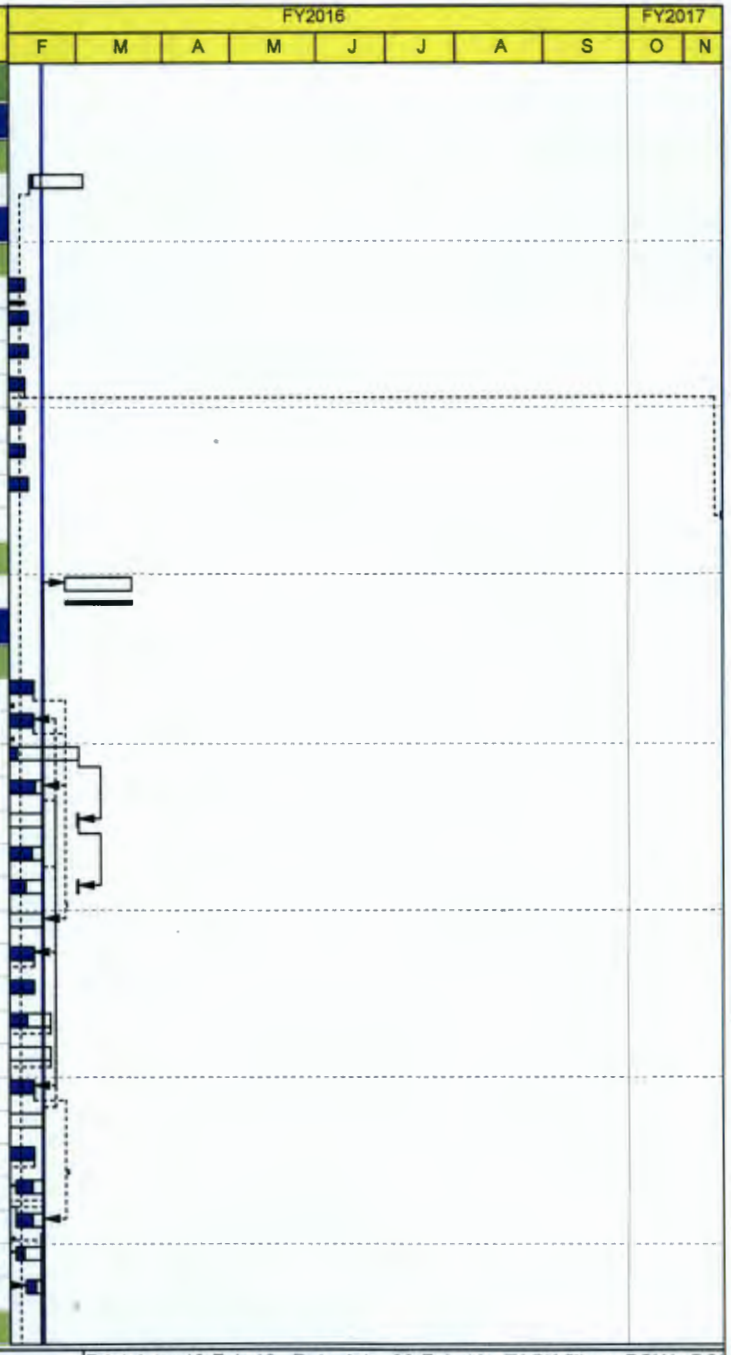
- Pending radiological surveys and sampling, east side is complete. Remediation of west side approximately 35% complete.

300 Area Removal Action Work Plan

- EPA and DOE comments have been incorporated into RAWP and RAWP has been returned for final review and approval.

Attachment 5

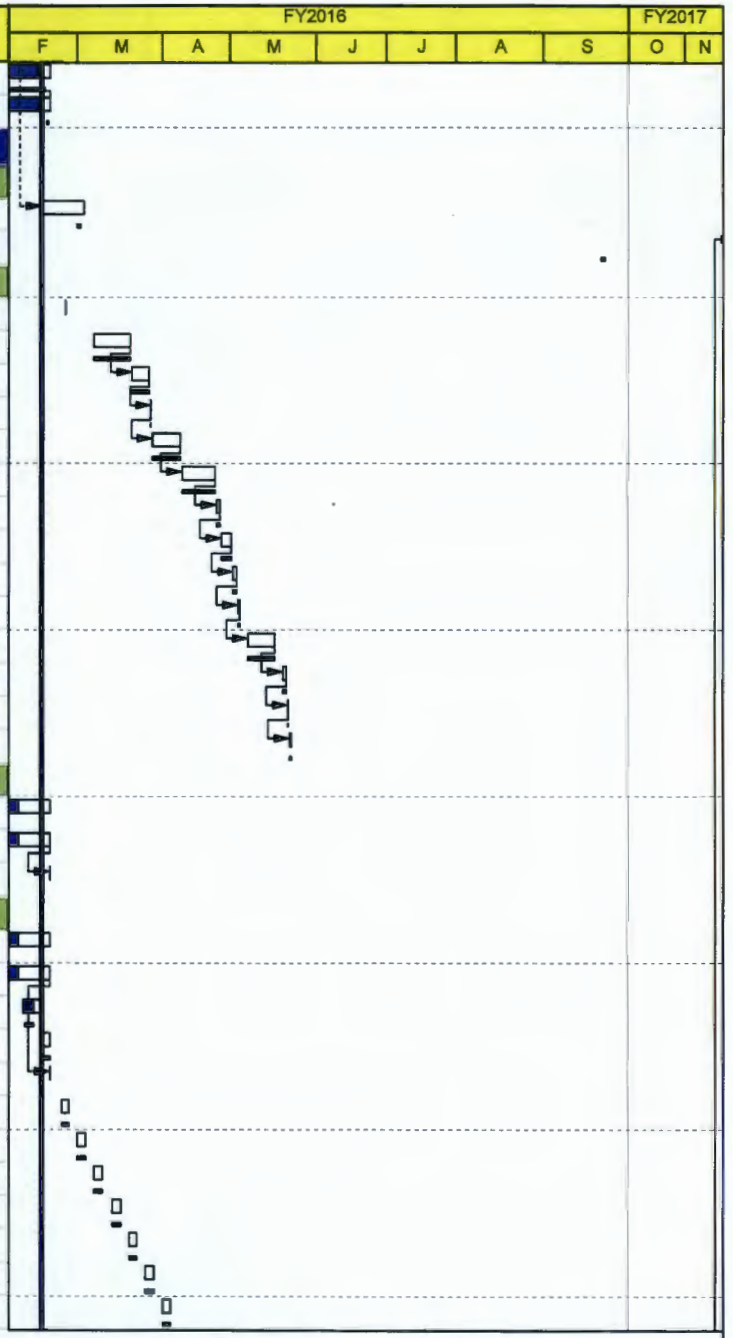
Activity ID	Activity Name	RD	% Cmpl	Start	Finish
Jill Thomson					
100 B/C					
100 Area Reveg					
BB524E10	Reveg 100-B-35:1 (11.56 Acres)	10	7%	03-Feb-16 A	24-Feb-16
100 D					
100 Area Reveg					
DRVGDSTR	Reveg 100-D Disturbed Areas (12.0 acres)	0	100%	07-Jan-16 A	01-Feb-16 A
D104RVGFY16	Reveg 100-D-104 Stockpile (2.75 acres)	0	100%	12-Jan-16 A	02-Feb-16 A
D30RVGFY16	Reveg 100-D-30 stockpile (2.75 acres)	0	100%	12-Jan-16 A	02-Feb-16 A
CBB0545E	Reveg 100-D-86:1 (4.96 acres)	0	100%	12-Jan-16 A	01-Feb-16 A
CBB0550E	Reveg 100-D-99 (0.37 Acres)	0	100%	13-Jan-16 A	01-Feb-16 A
CBB0548E	Reveg 100-D-97 (0.37 acres)	0	100%	13-Jan-16 A	01-Feb-16 A
CBC0518E	Reveg 100-D-106 (1.37 Acres)	0	100%	14-Jan-16 A	02-Feb-16 A
DRVGTRLR	Reveg 100-D Trailer Village (2.95 acres)	4	0%	14-Nov-16*	17-Nov-16
FD16-B01	183-D Install Bat Fence	16	0%	17-Feb-16	15-Mar-16
100 H					
100 Area Reveg					
HB404E20	Reveg 116-H-9 (0.40 acre) (tied to 51:2)	0	100%	18-Jan-16 A	04-Feb-16 A
HB526E10	Reveg 100-H-51:6 (1.60 Acres)	0	100%	18-Jan-16 A	04-Feb-16 A
HB511E07	Reveg 100-H-28:2 (49.0 Acres)	8	30%	18-Jan-16 A	22-Feb-16
HB528E	Reveg 100-H-59:1 (1.0 Acres)	1	85.9%	18-Jan-16 A	08-Feb-16
HB525E	Reveg 100-H-51:1 (0.30 Acres)	1	20%	18-Jan-16 A	22-Feb-16
H592101	Reveg 100-H-59:2 (2.5 acres)	1	80%	18-Jan-16 A	08-Feb-16
HB517E	Reveg 100-H-44 (1.0 acres)	1	40%	18-Jan-16 A	22-Feb-16
HB900F1	Reveg 100-H-3 (0.3 acres) (tied with 51:1)	1	20%	18-Jan-16 A	08-Feb-16
HB520E	Reveg 100-H-51:2 (1.25 acre)	0	100%	18-Jan-16 A	04-Feb-16 A
HB513E50	Reveg 100-H-28:4 (4.25 Acres)	0	100%	18-Jan-16 A	04-Feb-16 A
HB514E	Reveg 100-H-28:5 (4.0 acre)	4	60%	18-Jan-16 A	11-Feb-16
HB512E	Reveg 100-H-28:3 (4.0 acres)	4	30%	18-Jan-16 A	11-Feb-16
HB502E	Reveg 100-H-31 (0.33 acre) (tied with 28:4)	0	100%	18-Jan-16 A	04-Feb-16 A
HB910F1	Reveg 100-H-4 (1.2 acres) (tied with 51:1)	1	20%	18-Jan-16 A	08-Feb-16
HC604E20	Reveg 118-H-4 (0.22 acre) (tied with 28:4)	0	100%	18-Jan-16 A	04-Feb-16 A
HB515E	Reveg 100-H-42 (2.5 acre)	1	60%	28-Jan-16 A	08-Feb-16
HB503E20	Reveg 116-H-5 (3.0 acres)	1	60%	28-Jan-16 A	08-Feb-16
HB524E	Reveg 100-H-49:1 (0.3 Acres)	1	30.7%	28-Jan-16 A	08-Feb-16
HB526E	Reveg 100-H-51:3 (0.30 Acres)	1	60%	01-Feb-16 A	08-Feb-16
Exit Items					



◆ Milestone
Actual Work
Actual Critical
% Complete
Remaining Work
Critical Remaining Work

Print date: 10-Feb-16. Data date: 08-Feb-16. TASK filters: POW , PO
Format.

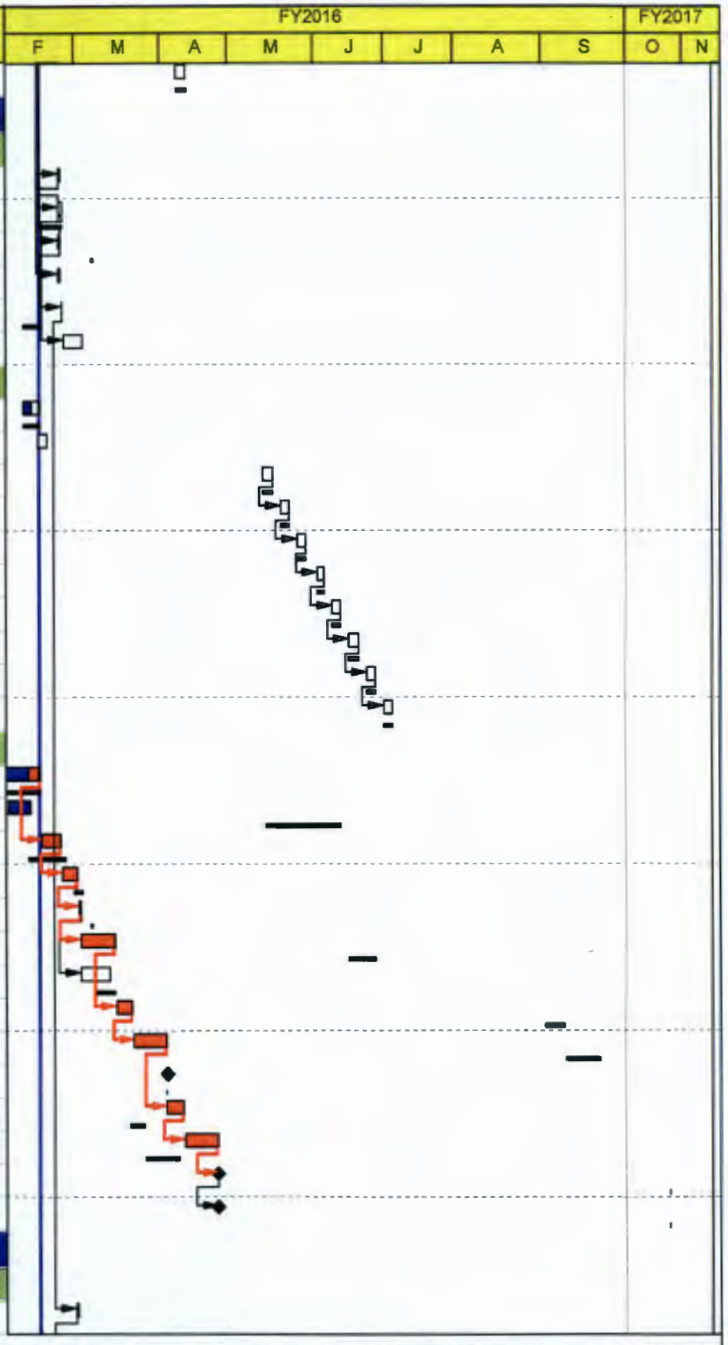
Activity ID	Activity Name	RD	% Cmpl	Start	Finish
HREVGDTRB	Reveg 100-H Disturbed Areas (23.64 acres)	4	80%	18-Jan-16 A	11-Feb-16
HREVGCTA	Reveg 100-H Trailer Village (0.56 acres)	4	80%	25-Jan-16 A	11-Feb-16
100 N					
100 Area Reveg					
NB5C3E	Reveg 100-N-96 (8.16 Acres)	10	0%	08-Feb-16	24-Feb-16
NB5B2E	Reveg 100-N-83 (7.5 Acres)	2	0%	14-Nov-16*	15-Nov-16
N Area					
NRP1020	Present at Monthly Meeting	1	0%	17-Feb-16*	17-Feb-16
NRP1030	Schedule & Perform Walkdown	9	0%	29-Feb-16*	14-Mar-16
NRP1040	WCH Revising Plant List	5	0%	15-Mar-16	22-Mar-16
NRP1050	WCH Transmits Plant List	1	0%	23-Mar-16	23-Mar-16
NRP1060	DOE Transmits Plant List	6	0%	24-Mar-16	04-Apr-16
NRP1070	Tribes provide feedback on Plant List	8	0%	05-Apr-16	18-Apr-16
NRP1080	WCH Revise Draft Restoration Plan per Tribal Input	2	0%	19-Apr-16	20-Apr-16
NRP1090	Tech Edit	2	0%	21-Apr-16	25-Apr-16
NRP1100	Internal Review / Inc. Comments	2	0%	26-Apr-16	27-Apr-16
NRP1110	WCH Transmit Draft Plan to DOE/MSA	1	0%	28-Apr-16	28-Apr-16
NRP1120	DOE/MSA Review of Plan	8	0%	02-May-16	12-May-16
NRP1130	WCH Incorporates DOE/MSA Comments	2	0%	16-May-16	17-May-16
NRP1140	WCH Transmits Final Plan to DOE	1	0%	18-May-16	18-May-16
NRP1150	DOE Transmits Final Restoration Plan (MOA III)	1	0%	19-May-16	19-May-16
100-N MR CRR HCRC #2011-100-104					
100NMR4340	Nez Perce Tribe signs MOA and Transmits to DOE	4	75%	22-Dec-15 A	11-Feb-16
100NMR4360	Wanapum Tribe signs MOA and Transmits to DOE	4	75%	22-Dec-15 A	11-Feb-16
100NMR4380	DOE Transmits signed MOA to all Consulting Parties	1	0%	11-Feb-16	11-Feb-16
100-N Exit Items HCRC# 2012-100-017 (Inc. 100-N-83)					
100NEX3540	Nez Perce Tribe signs MOA and Transmits to DOE	4	75%	22-Dec-15 A	11-Feb-16
100NEX3560	Wanapum Tribe sign MOA and Transmits to DOE	4	75%	22-Dec-15 A	11-Feb-16
100NEX4010	100-N-83 Weekly Summaries to Consulting Parties #2 (MC	1	50%	01-Feb-16 A	08-Feb-16
100NEX4020	100-N-83 Weekly Summaries to Consulting Parties #3 (MC	4	0%	08-Feb-16*	11-Feb-16
100NEX3570	DOE Transmits Signed MOA to all Consulting Parties	1	0%	11-Feb-16	11-Feb-16
100NEX4030	100-N-83 Weekly Summaries to Consulting Parties #4 (MC	3	0%	16-Feb-16*	18-Feb-16
100NEX4040	100-N-83 Weekly Summaries to Consulting Parties #5 (MC	4	0%	22-Feb-16*	25-Feb-16
100NEX4050	100-N-83 Weekly Summaries to Consulting Parties #6 (MC	4	0%	29-Feb-16*	03-Mar-16
100NEX4060	100-N-83 Weekly Summaries to Consulting Parties #7 (MC	4	0%	07-Mar-16*	10-Mar-16
100NEX4070	100-N-83 Weekly Summaries to Consulting Parties #8 (MC	4	0%	14-Mar-16*	17-Mar-16
100NEX4080	100-N-83 Weekly Summaries to Consulting Parties #9 (MC	4	0%	21-Mar-16*	24-Mar-16
100NEX4090	100-N-83 Weekly Summaries to Consulting Parties #10 (M	4	0%	28-Mar-16*	31-Mar-16



◆ Milestone
% Complete
Actual Work
Remaining Work
Actual Critical
Critical Remaining Work

Print date: 10-Feb-16. Data date: 08-Feb-16. TASK filters: POW , PO
Format.

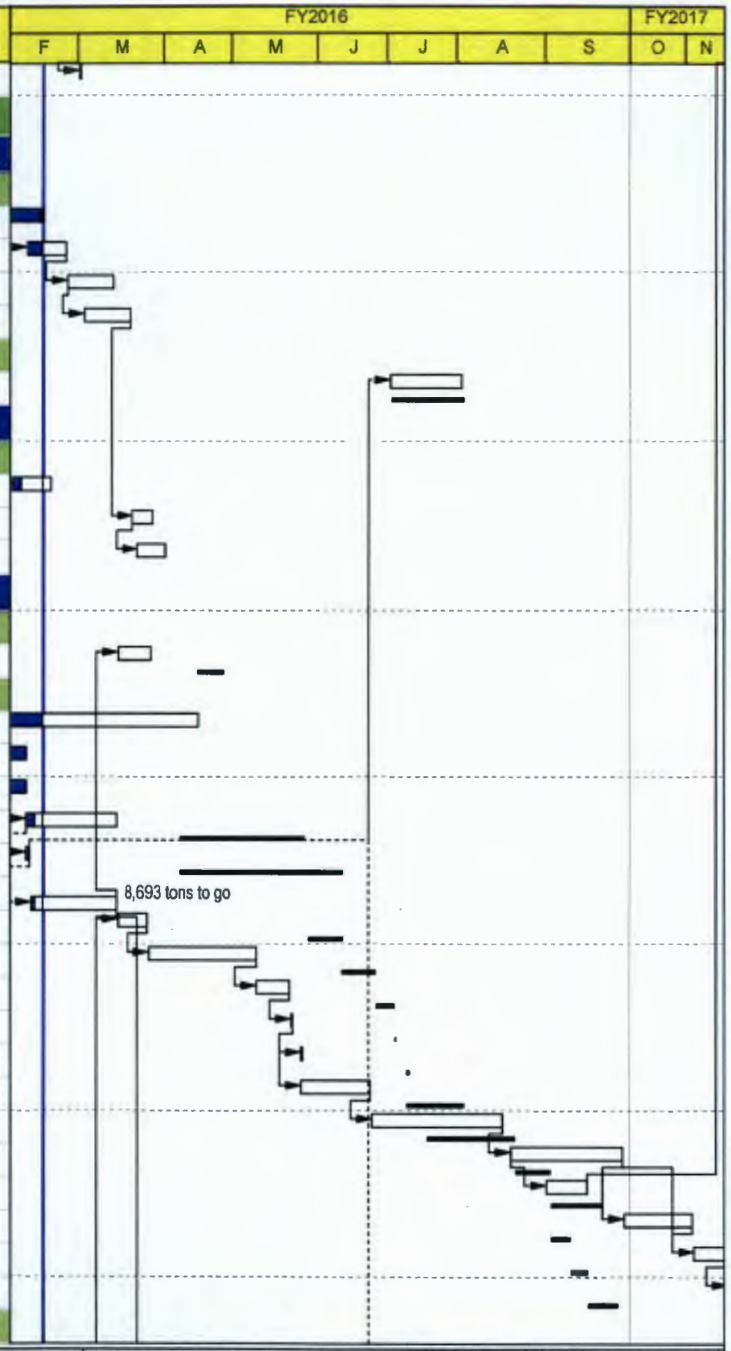
Activity ID	Activity Name	RD	% Cmpl	Start	Finish
100NEX4100	100-N-83 Weekly Summaries to Consulting Parties #11 (M	4	0%	04-Apr-16*	07-Apr-16
IU-2/6					
100 Area Reveg					
RVGSG4-477	Apply seeds to SG4-477 (MR) (0.4 acre)	1	0%	16-Feb-16	16-Feb-16
IU226650	Reveg 600-358 (1.43 acres)	2	0%	16-Feb-16	17-Feb-16
IU222680	Reveg 600-326 (0.1 acre)	1	0%	16-Feb-16	16-Feb-16
6349-E01	Hand seed 600-349 (0.5 acre)	1	0%	16-Feb-16	16-Feb-16
IU223680	Reveg 600-332 (1.0 acre) tied with 600-358	1	0%	17-Feb-16	17-Feb-16
IU226210	Reveg 600-20 (3.12 acres)	5	0%	18-Feb-16	25-Feb-16
D & H Horn 600-385 (Sensitive) RTD & MR HCRC #2011-100-083					
100DHMR1990	600-385 Weekly to Consulting Parties for Civil Survey (MC	1	50%	02-Feb-16 A	08-Feb-16
100DHMR1054	DOE Transmits Signed MOA to all Consulting Parties	4	0%	08-Feb-16	11-Feb-16
100DHMR2000	600-385 Weekly to Consulting Parties #1 (MOA 7e)	4	0%	09-May-16*	12-May-16
100DHMR2010	600-385 Weekly to Consulting Parties #2 (MOA 7e)	4	0%	16-May-16	19-May-16
100DHMR2020	600-385 Weekly to Consulting Parties #3 (MOA 7e)	4	0%	23-May-16	26-May-16
100DHMR2030	600-385 Weekly to Consulting Parties #4 (MOA 7e)	3	0%	31-May-16	02-Jun-16
100DHMR2040	600-385 Weekly to Consulting Parties #5 (MOA 7e)	4	0%	06-Jun-16	09-Jun-16
100DHMR2050	600-385 Weekly to Consulting Parties #6 (MOA 7e)	4	0%	13-Jun-16	16-Jun-16
100DHMR2060	600-385 Weekly to Consulting Parties #7 (MOA 7e)	4	0%	20-Jun-16	23-Jun-16
100DHMR2070	600-385 Weekly to Consulting Parties #8 (MOA 7e)	4	0%	27-Jun-16	30-Jun-16
600-349 Cultural Review					
6003493065	DOE Transmits Comments on CRR to WCH	1	80%	18-Jan-16 A	08-Feb-16
6003494500	SHPO/Tribe 7 Day Review of MOA	0	100%	27-Jan-16 A	05-Feb-16 A
6003493070	Incorporate SHPO/Tribe Comments on CRR	4	0%	09-Feb-16	16-Feb-16
6003493520	Final Tech Edit / Comment Inc. to CRR	4	0%	17-Feb-16	23-Feb-16
6003493410	WCH Transmit Final CRR to DOE	1	0%	24-Feb-16	24-Feb-16
6003494340	DOE Signs MOA	8	0%	25-Feb-16	09-Mar-16
6003493420	DOE Transmits Final CRR to SHPO/Tribes	6	0%	25-Feb-16	07-Mar-16
6003494570	DOE Transmits MOA to SHPO	4	0%	10-Mar-16	16-Mar-16
6003494350	SHPO Signs MOA and Transmits to DOE	8	0%	17-Mar-16	30-Mar-16
6003495000	GFSI Date/Need Date	0	0%		30-Mar-16*
6003494780	DOE Transmits MOA to ACHP	4	0%	31-Mar-16	06-Apr-16
6003494790	ACHP Signs MOA and Transmits to DOE	8	0%	07-Apr-16	20-Apr-16
6003494360	DOE Concurrence for 600-349 CRR	0	0%		20-Apr-16*
6003494110	Project Clearance	0	0%		20-Apr-16
300 Area					
300 Area misc WS Reveg					
C-6367-050	Reveg 600-367 (0.6 acres)	1	0%	23-Feb-16	23-Feb-16



◆ Milestone
Actual Work
Actual Critical
% Complete
Remaining Work
Critical Remaining Work

Print date: 10-Feb-16. Data date: 08-Feb-16. TASK filters: POW , PO
Format.

Activity ID	Activity Name	RD	% Cmpl	Start	Finish
C-6022-030	Reveg UPR-600-22 (3.9 acres plants only) (618-11)	1	0%	23-Feb-16	23-Feb-16
Dan Elkins					
100 D					
Well Replacements (CHPRC)					
DWELL01	Well Replacement - Well 199-D5-149 (C8729)	1	95%	20-Jan-16 A	08-Feb-16
DWELL02	Well Replacement - Well 199-D5-150	6	70%	02-Feb-16 A	17-Feb-16
DWELL03	Well Replacement - Well 199-D5-151	10	0%	18-Feb-16	07-Mar-16
DWELL04	Well Replacement - Well 199-D5-152	10	0%	25-Feb-16	14-Mar-16
DNSSTRL16	Demob MO-126 from D-Mac trailers (After Backfill & N-83)	16	0%	28-Jun-16	26-Jul-16
100 H					
Well Replacements (CHPRC)					
FH030	Well Replacement - Well 199-H4-89	4	20%	27-Jan-16 A	11-Feb-16
FH010	Well Replacement - Well 199-H4-87	6	0%	15-Mar-16	23-Mar-16
FH020	Well Replacement - Well 199-H4-88	6	0%	17-Mar-16	28-Mar-16
100 N					
Exit Items					
FN16EXIT	FY16 Exit Item Removal	8	0%	09-Mar-16	22-Mar-16
100-N-83					
R-1N83-025	100-N-83 in process monitoring (MOA I4d, IV, II3)	36	25%	19-Jan-16 A	11-Apr-16
R-1N83-030	100-N-83 Initial Clear and Grub	0	100%	25-Jan-16 A	01-Feb-16 A
R-1N83-045	100-N-83 update rad postings	0	100%	25-Jan-16 A	01-Feb-16 A
NB5B2A	Excavation - 100-N-83 (20,659 BCM)	17	10%	01-Feb-16 A	08-Mar-16
NB5B2B	Loadout - 100-N-83 (1,600 UST) 40 c/d	0	100%	01-Feb-16 A	02-Feb-16 A
NB5B2B10	Loadout - 100-N-83 (43,851 UST) 40 c/d	17	5%	03-Feb-16 A	08-Mar-16
NB5B2D	Prepare Verification Work Instruction - 100-N-83	7	0%	09-Mar-16	21-Mar-16
NB5B2D02	RL/Reg Review Draft A Work Instr for 100-N-83	26	0%	22-Mar-16	04-May-16
NB5B2D017	Resolve RL/Reg Comments Draft A Work Instr 100-N-83	8	0%	05-May-16	18-May-16
NB5B2D03	RL/Reg Sign Rev. 0 Work Instr for 100-N-83	1	0%	19-May-16	19-May-16
NB5B2D027	Prepare and Issue Rev 0 Work Instr for 100-N-83	1	0%	23-May-16	23-May-16
NB5B2D04	Closure Sampling - 100-N-83	16	0%	23-May-16	20-Jun-16
NB5B2D05	Prepare Closure Doc - 100-N-83	30	0%	21-Jun-16	11-Aug-16
NB5B2D06	RL/Reg Review Draft A Closure Doc for 100-N-83	26	0%	15-Aug-16	28-Sep-16
NB5B2C	Backfill - 100-N-83 (20,659 BCM)	10	0%	29-Aug-16	14-Sep-16
NB5B2D06A	Resolve RL/Reg CommentsDraft A Closure Doc for 100-N-	16	0%	29-Sep-16	26-Oct-16
NB5B2D07	RL/Reg Sign Rev. 0 Closure Doc for 100-N-83	8	0%	27-Oct-16	09-Nov-16
NB5B2D07A	Prepare and Issue Rev. 0 Closure Doc for 100-N-83	6	0%	10-Nov-16	21-Nov-16
Misc. Restoration					

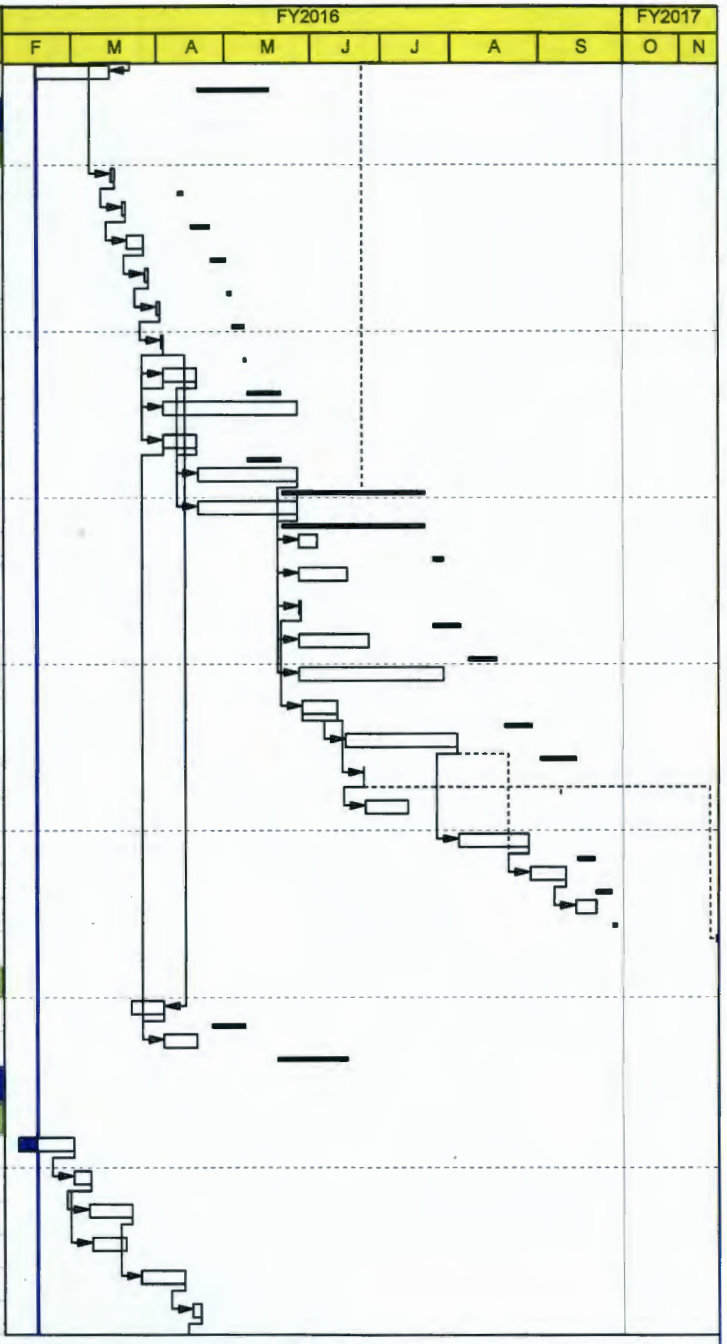


◆ Milestone
% Complete
Actual Work
Remaining Work
Actual Critical
Critical Remaining Work

UMM Schedule

Print date: 10-Feb-16. Data date: 08-Feb-16. TASK filters: POW , PO
Format.

Activity ID	Activity Name	RD	% Cmpl	Start	Finish
M513NF031	100-N Culturally Sensitive MR Debris and Fence Removal	17	0%	08-Feb-16	08-Mar-16
IU-2/6					
600-385					
R-6385-020	600-385 Mob equipment to 100-H	2	0%	09-Mar-16	10-Mar-16
R-6385-050	Haul and place sand bedding on road to 600-385	2	0%	14-Mar-16	15-Mar-16
R-6385-070	Build/place mats on road to 600-385 (MOA 1e)	4	0%	16-Mar-16	22-Mar-16
R-6385-030	600-385 Remove tumbleweeds from site (MOA 1a)	2	0%	23-Mar-16	24-Mar-16
R-6385-080	600-385 Haul/place pit run on waste site for equipment acc	2	0%	28-Mar-16	29-Mar-16
R-6385-090	Set up equipment at waste site 600-385	1	0%	30-Mar-16	30-Mar-16
R-6385-100	Excavation 600-385 (290 BCMs) (8 cans/day)	8	0%	31-Mar-16	13-Apr-16
R-6385-150	600-385 in-process monitoring (MOA 1d, 1h, 1i, 1j, 2a, 2b,	31	0%	31-Mar-16	24-May-16
R-6385-110	Loadout 600-385 (1,280 tons) (8 cans/day)	8	0%	31-Mar-16	13-Apr-16
R-6385-120	Excavation 600-385 (2,328 BCMs) (10 cans/day	23	0%	14-Apr-16	24-May-16
R-6385-130	Loadout 600-385 (4,480 tons) (10 cans/day)	23	0%	14-Apr-16	24-May-16
R-6385-140	Disassemble road mats to 600-385 and loadout	4	0%	25-May-16	01-Jun-16
R-6385-125	600-385 Permit Survey to do post ex survey and dwg	10	0%	25-May-16	13-Jun-16
C-6385-010	Prepare competent person asbestos evaluation 600-385 (M	1	0%	25-May-16	25-May-16
C-6385-020	600-385 update archaelogical sites (MOA 7a, 7b)	16	0%	25-May-16	22-Jun-16
C-6385-025	600-385 Report Summarizing and Integrating Cultural Use	32	0%	25-May-16	21-Jul-16
C-6385-030	Prepare WSRF 600-385	8	0%	26-May-16	09-Jun-16
C-6385-040	RL/Reg Review of Draft A WSRF 600-385	26	0%	13-Jun-16	27-Jul-16
BF-6385-010	Backfill 600-385 (45 BCMs)	1	0%	20-Jun-16	20-Jun-16
R-6385-160	600-385 Permit Survey to do post backfill survey and dwg	10	0%	21-Jun-16	07-Jul-16
C-6385-060	Resolve RL/Reg Comments Draft A WSRF 600-385	16	0%	28-Jul-16	24-Aug-16
C-6385-070	RL/Reg Signature Rev.0 WSRF 600-385	8	0%	25-Aug-16	08-Sep-16
C-6385-080	Prepare/Issue Rev.0 WSRF 600-385	6	0%	12-Sep-16	20-Sep-16
C-6385-050	Reveg 600-385 (1.3 acres) (NIC)	1	0%	14-Nov-16*	14-Nov-16
Misc. Restoration					
MRNSS100N2	MR Re-mob to Seg 4 near 100-D/H (600-385)	8	0%	17-Mar-16	30-Mar-16
M513DF011	Seg 4-D/H MR Removal (Near 600-385) (MOA 1f, 1g)	8	0%	31-Mar-16	13-Apr-16
300 Area					
300 Area Interim Stabilization Plan					
3STAB03	Propose stablization measures for remaining sites	8	40%	01-Feb-16 A	22-Feb-16
3STAB04	DOE Initial Review - 300 Area Interim Stabilization Plan (t	4	0%	23-Feb-16	29-Feb-16
3STAB06	DOE & EPA Review - 300 Area Interim Stabilization Plan	12	0%	29-Feb-16	17-Mar-16
3STAB05	Incorporate DOE Comments - 300 Area Interim Stabilizatic	8	0%	01-Mar-16	14-Mar-16
3STAB07	Draft Document - 300 Area Interim Stabilization Plan (inclu	12	0%	21-Mar-16	07-Apr-16
3STAB08	DOE Initial Review - 300 Area Interim Stabilization Plan (t	4	0%	11-Apr-16	14-Apr-16

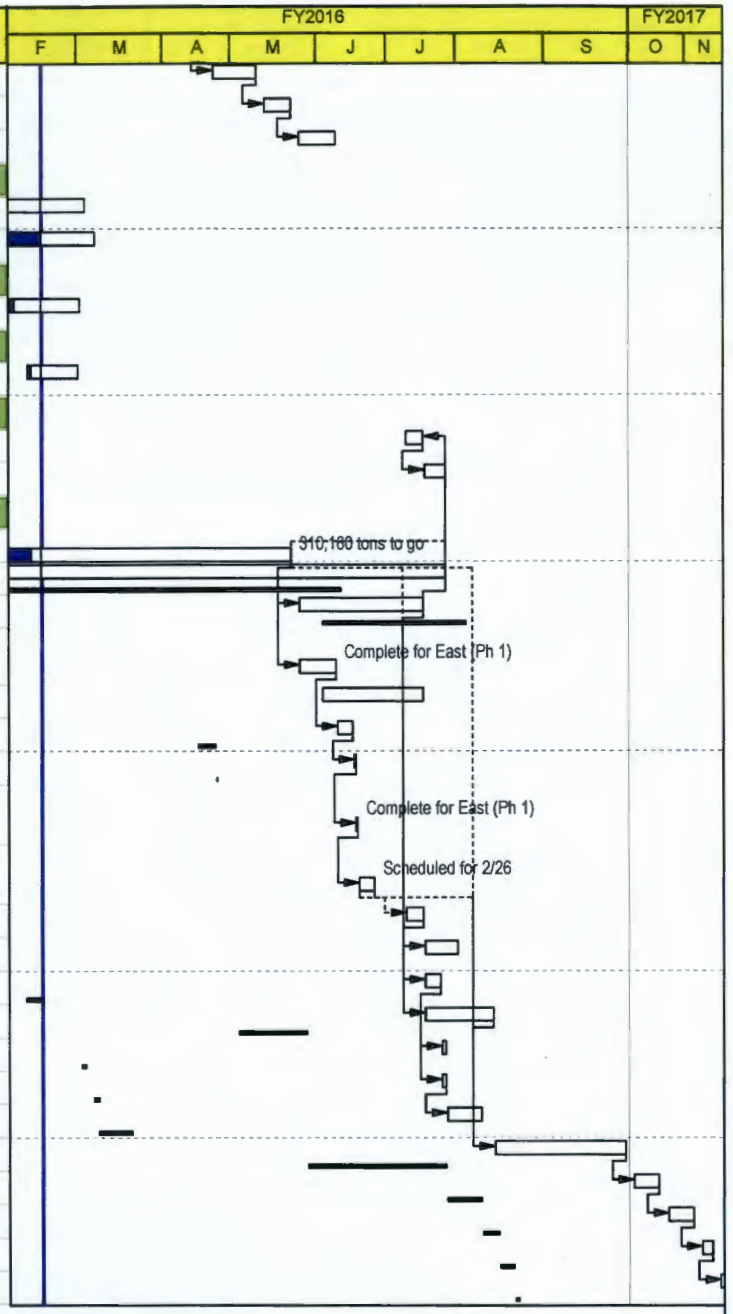


◆ Milestone
% Complete
Actual Work
Remaining Work
Actual Critical
Critical Remaining Work

UMM Schedule
5 of 6

Print date: 10-Feb-16. Data date: 08-Feb-16. TASK filters: POW , PO
Format.

Activity ID	Activity Name	RD	% Cmpl	Start	Finish
3STAB09	DOE & EPA Review - 300 Area Interim Stabilization Plan	12	0%	18-Apr-16	05-May-16
3STAB10	Incorporate DOE and EPA Comments - 300 Area Interim S	8	0%	09-May-16	19-May-16
3STAB11	Issue 300 Area Interim Stabilization Plan	8	0%	23-May-16	06-Jun-16
300A Closure Documents					
CR031	Post Demo Summary Report - 340	11	30%	02-Nov-15 A	25-Feb-16
CR01	Building Completion Report - MO-391 and MO-868	12	70%	25-Jan-16 A	29-Feb-16
300 Area Removal Action Work Plan					
RAWP030	RL/Reg Approve 300 Area Facilities RAWP	9	5%	27-Jan-16 A	23-Feb-16
300 Area End-State Index					
3ESI030	Revise and Issue 300 Area End-State Index	8	5%	03-Feb-16 A	22-Feb-16
North Empty CTA					
3MISC-500	Remove miscellaneous items at North Empty CTA (parking	4	0%	05-Jul-16	11-Jul-16
3MISC-440	Run GPERS at North Empty CTA (parking lot)	6	0%	12-Jul-16	20-Jul-16
300-288:2 (Pit 6)					
R-32882-025	300-288:2 West (Ph 2) - Remediate 137,470 BCMs (297,1	59	35.87%	07-Dec-15 A	19-May-16
R-32882-045	300-288:2 West in-process sampling	92	10.87%	07-Dec-15 A	20-Jul-16
R-32882-035	Future REA - 300-288:2 West (Ph 2) - Remediate 29,936 E	27	0%	23-May-16	11-Jul-16
C-32882-090	300-288:2 RL/Reg Review Draft A Work Instructions	8	0%	23-May-16	06-Jun-16
R-32882-055	300-288:2 West in-process sampling (Future REA)	22	0%	01-Jun-16*	11-Jul-16
C-32882-100	300-288:2 Resolve Draft A WI Comments/Incorp Changes	4	0%	07-Jun-16	13-Jun-16
C-32882-110	300-288:2 RL/Reg Sign Rev 0 Work Instructions	1	0%	14-Jun-16	14-Jun-16
C-32882-120	300-288:2 Prepare and Issue Rev 0 Work Instructions	1	0%	15-Jun-16	15-Jun-16
C-32882-130	300-288:2 Take Samples	4	0%	16-Jun-16	22-Jun-16
C-32882-220	300-288:2 West - Take Samples (closeout)	4	0%	05-Jul-16*	11-Jul-16
D-CTA-0110	Remove 300-288:2 CTA	8	0%	12-Jul-16	25-Jul-16
C-32882-030	300-288:2 Downpost Survey	4	0%	12-Jul-16	18-Jul-16
C-32882-140	300-288:2 Obtain Sample Analysis	16	0%	12-Jul-16	08-Aug-16
C-32882-050	300-288:2 Cleanup Hot Spots (if required)	2	0%	19-Jul-16	20-Jul-16
C-32882-060	300-288:2 Perform Civil Survey	2	0%	19-Jul-16	20-Jul-16
C-32882-070	300-288:2 Prepare Post-Ex Drawings	8	0%	21-Jul-16	03-Aug-16
C-32882-150	300-288:2 Prepare Draft A CVP	30	0%	09-Aug-16	29-Sep-16
C-32882-160	300-288:2 RL/Reg Review Draft A CVP	8	0%	03-Oct-16	13-Oct-16
C-32882-170	300-288:2 Resolve Comments/Incorp Chgs Draft A CVP	8	0%	17-Oct-16	27-Oct-16
C-32882-180	300-288:2 RL/Reg Sign Rev 0 CVP	4	0%	31-Oct-16	03-Nov-16
C-32882-190	300-288:2 Prepare and Issue Rev 0 CVP	4	0%	07-Nov-16	10-Nov-16



◆ Milestone
Actual Work
Actual Critical
% Complete
Remaining Work
Critical Remaining Work

UMM Schedule
6 of 6

Print date: 10-Feb-16. Data date: 08-Feb-16. TASK filters: POW , PO
Format.

Attachment 6

^WCH Document Control 181770

From: McCurley, Clay D
Sent: Monday, January 25, 2016 8:52 AM
To: ^WCH Document Control
Subject: REQUEST FOR REVEGETATION WINDOW EXTENSION 2016 - EPA RESPONSE

Please chron this email as EPA approval for WCH, in 2016, to continue revegetation activities in the 100 Area past the window specified in the RDR/RAWP (DOE/RL-96-17) and let me know which chron number was selected. Thank you. Clay

---

From: Guzzetti, Christopher [mailto:Guzzetti.Christopher@epa.gov]
Sent: Thursday, January 21, 2016 8:24 AM
To: Boyd, Alicia; Neath, John P
Cc: Menard, Nina; Bernhard, James E; Thomson, Jill E; McCurley, Clay D
Subject: RE: REQUEST FOR REVEGETATION WINDOW EXTENSION 2016

John/Clay –

EPA also concurs with the request to revegetate in the February and March time window. I echo Alicia's suggestion that DOE evaluate these sites in the Fall to make sure the revegetation effort was effective and would also be interested in hearing how this work scope will be handled in the future.

Thanks,
Christopher J. Guzzetti
Project Manager
Hanford Project Office
U.S. Environmental Protection Agency
825 Jadwin Avenue, Suite 210
Richland, WA 99352

Phone: (509) 376-9529
Fax: (509) 376-2396
Email: guzzetti.christopher@epa.gov

From: Boyd, Alicia (ECY) [mailto:aboy461@ecy.wa.gov]
Sent: Thursday, January 21, 2016 7:40 AM
To: Neath, John P <john.neath@rl.doe.gov>
Cc: Guzzetti, Christopher <Guzzetti.Christopher@epa.gov>; Menard, Nina (ECY) <nmen461@ECY.WA.GOV>; Bernhard, James E <James.Bernhard@wch-rcc.com>; Thomson, Jill E <jill.thomson@wch-rcc.com>; McCurley, Clay D <Clay.McCurley@wch-rcc.com>
Subject: RE: REQUEST FOR REVEGETATION WINDOW EXTENSION 2016

John
Ecology concurs with the request to revegetate the Ecology lead sites listed below in the February and March time window. In addition to the mitigation activities described below, DOE should have these sites evaluated in the fall of 2016 to ensure the success of the revegetation effort. If plants do not take as determined by the criteria in the

Revegetation Plan (DOE/RL-96-17, Appendix H), waste site replanting should be included with the work in the following planting window (November 2016 through January 2017).

A multi-phase effort is involved in revegetation of waste sites (waste site preparation, seed collection, greenhouse propagation, planting, evaluating success, etc.) I am interested in hearing about how this portion of WCH's work scope is going through the contract changeover process. Clearly there are other portions of the current WCH work scope the both Ecology and EPA would be interested in hearing about as well. I propose some discussion of the contract turnover be a topic at the 100/300 Area UMM as information is available to be shared.

Alicia L. Boyd
Washington State Department of Ecology
3100 Port of Benton Blvd
Richland, WA 99352
509-372-7934

From: McCurley, Clay D [mailto:Clay.McCurley@wch-rcc.com]
Sent: Tuesday, January 12, 2016 10:41 AM
To: Boyd, Alicia (ECY) <aboy461@ecy.wa.gov>; Guzzetti, Chris <GUZZETTI.CHRISTOPHER@EPA.GOV>
Cc: Bernhard, James E <James.Bernhard@wch-rcc.com>; Thomson, Jill E <jill.thomson@wch-rcc.com>; Neath, John P <john.neath@rl.doe.gov>
Subject: REQUEST FOR REVEGETATION WINDOW EXTENSION 2016

Alicia/Chris. We would like to request Ecology and EPA approval to conduct revegetation activities at some sites in February and possibly into March 2016 (see list of sites below). Appendix H of the RDR/RAWP (DOE/RL-96-17), Revegetation Plan for the 100 Areas, specifies a planting window of November through January of each year, although it also states that the plan is generic and that site specific conditions will be evaluated and adjustments made when necessary.

The large number of areas being revegetated, in addition to some sites still needing backfill, has necessitated this request to extend the window for revegetation. Our revegetation subject matter expert believes that the soil moisture content will remain conducive to conducting this activity through March 2016 and if conditions change, the sites would be manually watered to ensure viability of the seeds and seedlings. We currently have personnel and materials (seed and seedlings) available onsite to conduct this work and would like to accomplish this task while the materials are available.

Let me know if you concur and I'll document the agreement at this upcoming UMM.

100-B-35
100-H-28:2
100-H-28:3
100-H-28:4
100-H-28:5
100-H-42
116-H-5
100-H-44
100-H-49:1
100-H-51:1
100-H-51:2
100-H-51:3
100-H-51:6
100-H-59:1
100-H-59:2
600-20 Area A

600-326:1 & 2
600-358
600-385
SG4-477
600-349
100-N-96
600-367
UPR-600-22

Attachment 7

181702

From: McCurley, Clay D
To: ^WCH Document Control
Subject: Request for Air Monitoring Exemption for 600-385 Waste Site Remediation
Date: Thursday, January 14, 2016 9:46:13 AM

Folks. Please chron this email as a regulatory approval related to the 600-385 waste site. Let me know which chron number is selected. Thanks. Clay

---

From: Elliott, Wanda (ECY) [mailto:well461@ECY.WA.GOV]
Sent: Thursday, January 14, 2016 9:33 AM
To: McCurley, Clay D; Yokel, Jerel
Cc: Boyd, Alicia; Neath, John P; Elkins, Dan A; Menard, Nina
Subject: RE: Request for Air Monitoring Exemption for 600-385 Waste Site Remediation

Ecology concurs.

Wanda Elliott

Environmental Scientist
Natural Resource Damage Assessment
Washington State Department of Ecology
3100 Port of Benton Blvd. Richland, WA 99354
509-372-7904
WELL461@ecy.wa.gov
MSIN #H0-57

From: McCurley, Clay D [mailto:Clay.McCurley@wch-rcc.com]
Sent: Tuesday, January 12, 2016 10:51 AM
To: Elliott, Wanda (ECY) <well461@ECY.WA.GOV>; Yokel, Jerry (ECY) <JYOK461@ECY.WA.GOV>
Cc: Boyd, Alicia (ECY) <aboy461@ecy.wa.gov>; Neath, John P <john.neath@rl.doe.gov>; Elkins, Dan A <dan.elkins@wch-rcc.com>
Subject: Request for Air Monitoring Exemption for 600-385 Waste Site Remediation

Wanda/Jerel.

This email is requesting Ecology concurrence that ambient air monitoring for radionuclides is not required at the 600-385 waste site. The site is not in a radiologically controlled area, has no history of radiological contamination and a radiological scoping survey recently conducted there detected no radiological contamination (see attached RSR-IFSM-15-0174). Therefore, it is credible to conclude that radioactive air emissions above naturally occurring background levels, (if any) would result in a total effective dose equivalent far less than 0.1 mrem/year. Section 3.4.6 of the 100 Area RDR/RAWP (DOE/RL-96-17, Revision 6) states "the substantive requirements applicable to radioactive air emissions resulting from remediation activities are

to quantify potential emissions, monitor emissions, and identify and employ best available radionuclide control technology. Exemptions from these requirements may be requested if the potential-to-emit for the activity or emission unit would result in a total effective dose equivalent of less than 0.1 mrem/year."

Please note that dust control measures will be implemented during remediation and radiological surveys will be performed daily during remediation activities. If contamination is found, DOE and Ecology will be notified and an evaluation will be performed prior to resuming remedial operations.

Please let me know if Ecology is in concurrence.

Thanks.

Clay McCurley
(509) 440-4478

Attachment 8

TRI-PARTY AGREEMENT

Change Notice Number TPA-CN- 708	TPA CHANGE NOTICE FORM	Date: 1/26/16
Document Number, Title, and Revision: DOE/RL-2014-44-ADD2, Revision 0, Remedial Design Report/Remedial Action Work Plan Addendum for the 100-F/IU Groundwater		Date Document Last Issued: August 2015
Approved Change Notices Against this Document: N/A		
Originator: Kevin Singleton		Phone: 509-308-3962

Description of Change:
Update to DOE/RL-2014-44-ADD2's Appendix C, Waste Management Plan for the 100-FR-3 Operable Unit. Table C-1 and Table C-2 are modified to include well 699-61-37, Seep 187-1 and the 100-F River Gauge.

M.W. Cline (DOE) and C. Guzzetti (Lead Regulatory Agency) agree that the proposed change modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement*.

Page C-3, Table C-1 is updated to add well 699-61-37 (A5283).

Page C-4, Table C-2, is updated to add River Seep 187-1 and the 100-F River Gauge. The title of Table C-2 is also updated to reflect the scope of the seep and river gauge.

Additional text is denoted by double underline. Struck text is denoted by ~~strikeout~~.

Justification and Impacts of Change:
River Seep 187-1, the 100-F River Gauge and groundwater well 699-61-37 are within the scope of DOE/RL-2014-44-ADD2. However, the seep, river gauge and groundwater well were not included in Appendix C of the Waste Management Plan. The three locations are added to the scope of the waste management plan.

The title of Table C-2 is updated to reflect the added scope.

Approvals:

DOE Project Manager	1/26/2016 Date	[X] Approved [ ] Disapproved
EPA Project Manager	1/26/16 Date	[X] Approved [ ] Disapproved
N/A Ecology Project Manager	Date	[ ] Approved [ ] Disapproved

Table C-1. Wells Associated with the 100-FR-3 Operable Unit

Well Name	Well Identification	Well Name	Well Identification	Well Name	Well Identification
199-F1-2	A4586	199-F8-2	A4607	699-69-45R	A9761
199-F5-1	A4587	199-F8-3	A4608	699-70-23	A5318
199-F5-4	A4590	199-F8-4	A4609	699-71-30	A5320
199-F5-42	A4591	199-F8-7	C6834	699-71-52	A5321
199-F5-43A	A4592	699-57-29A	A5267	699-74-44	A5328
199-F5-43B	A4593	699-57-29B	A5268	699-77-36	A5330
199-F5-44	A4594	699-58-24	A5275	699-77-54	A5331
199-F5-45	A4595	699-59-32	A5276	699-80-43P	A8993
199-F5-46	A4596	699-60-32	A5279	699-80-43S	A5336
199-F5-47	A4597	699-62-31	A5287	699-81-38	A5337
199-F5-48	A4598	699-63-25A	A5289	699-83-47	A5341
199-F5-52	C7790	699-64-27	A5295	699-84-34B	A9021
199-F5-53	C7791	699-65-22	A5297	699-84-35A	A5342
199-F5-54	C7792	699-66-23	A5306	699-84-35AO	A9769
199-F5-55	C7970	699-66-38	A5307	699-84-35AP	A9770
199-F5-56	C7972	699-66-39	A5308	699-84-35AQ	A9771
199-F5-6	A4600	699-69-38	A5316	699-84-35AR	A9772
199-F6-1	A4602	699-69-45	A8967	699-84-35AS	A9773
199-F7-1	A4603	699-69-45O	A5317	699-86-42	A5344
199-F7-2	A4604	699-69-45P	A9759	699-87-42A	A5345
199-F7-3	A4605	699-69-45Q	A9760	699-61-37	A5283
Phase 1 Wells To Be Installed					
TBD	C9472	TBD	C9476	TBD	C9479
TBD	C9474	TBD	C9477	TBD	C9480
TBD	C9475	TBD	C9478		

Note: Wells identified in Table C-1 are associated with the 100-FR-3 groundwater interest area as of January 2015.

TBD = to be determined

Table C-2. Aquifer Tubes, Seep and River Gauge Associated with the 100-FR-3 Operable Unit

Well Name	Well Identification	Well Name	Well Identification	Well Name	Well Identification
59-D	B8325	68-D	B8352	AT-F-2-D	C4392
59-M	B8326	68-M	B8353	AT-F-2-M	C4393
59-S	B8327	68-S	B8354	AT-F-2-S	C4394
60-D	B8328	69-D	B8355	AT-F-3-D	C4383
60-M	B8329	72-D	B8364	AT-F-3-M	C4384
60-S	B8330	72-M	B8365	AT-F-3-S	C4385
61-D	B8331	72-S	B8366	AT-F-4-D	C4386
61-M	B8332	74-D	B8370	AT-F-4-M	C4387
61-S	B8333	74-M	B8371	AT-F-4-S	C4388
62-M	B8335	75-D	B8373	C6302	C6302
62-S	B8336	75-M	B8374	C6303	C6303
63-D	B8337	75-S	B8375	C6305	C6305
63-M	B8338	76-D	B8376	C6306	C6306
63-S	B8339	76-M	B8377	C6307	C6307
64-D	B8340	76-S	B8378	C6308	C6308
64-M	B8341	77-D	B8379	C6309	C6309
64-S	B8342	77-M	B8380	C6311	C6311
66-D	B8346	77-S	B8381	C6312	C6312
66-M	B8347	80-D	B8388	C6314	C6314
66-S	B8348	AT-F-1-D	C4389	C6315	C6315
67-M	B8350	AT-F-1-M	C4390	C6316	C6316
67-S	B8351	AT-F-1-S	C4391	Seep 187-1	N/A
				100-F River Gauge	N/A

Note: Aquifer tubes identified in Table C-2 are associated with the 100-FR-3 groundwater interest area as of January 2015.

Attachment 9

^WCH Document Control 181861

From: McCurley, Clay D
Sent: Wednesday, February 03, 2016 2:12 PM
To: ^WCH Document Control
Subject: 618-10 EPA Approval to Reduce Batch Sampling Frequency to 1 in 20

Folks. Please chron this email as a regulatory approval for the 618-10 Waste Site. Thanks. Clay

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From: Simes, Benjamin [mailto:Simes.Benjamin@epa.gov]
Sent: Friday, January 29, 2016 7:19 AM
To: McCurley, Clay D; Zeisloft, Jamie
Subject: RE: 618-10 Batch Sampling Frequency

Clay,

Consider this your written notification from EPA on reducing the frequency of batch sampling to 1 in 20.

Thanks,

Benjamin Simes, CHMM
US EPA, OLEM
Federal Facilities Restoration and Reuse Office
202-564-0527 D
571-302-6189 C
703-603-0043 F

From: McCurley, Clay D [mailto:Clay.McCurley@wch-rcc.com]
Sent: Thursday, January 28, 2016 5:03 PM
To: Simes, Benjamin <Simes.Benjamin@epa.gov>; Zeisloft, Jamie <jamie.zeisloft@rl.doe.gov>
Subject: RE: 618-10 Batch Sampling Frequency

Ben and Jamie. I have been asked to obtain written concurrence from you that you approve reducing the batch sampling frequency from 1 in 4 (25%) to 1 in 20 (5%). Please reply that you concur with this. Thank you.

Clay

From: McCurley, Clay D
Sent: Thursday, January 28, 2016 12:45 PM
To: 'Simes, Benjamin'; Zeisloft, Jamie
Subject: 618-10 Batch Sampling Frequency

Ben/Jamie. During today's UMM, we discussed with you the batch sampling frequency which is currently 25% (1 in 4) as specified in the ***Acceptance and Treatment Plan for Liquid Anomalies in Bottles and Processing Concrete Drums at the 618-10 Burial Ground*** (WCH-532, Rev 4). You stated that it would now be acceptable for us to reduce the batch sampling frequency to 5% (1 in 20). Thank you. We are proceeding on your verbal approval and switching to the 1 in 20 frequency beginning today. I will follow up with a revised WCH-532 (Rev 5) for you and Jamie to sign.

Please let me know if I got any of this incorrect. Contact me if you have any questions. Thank you again.

Clay
(509) 440-4478