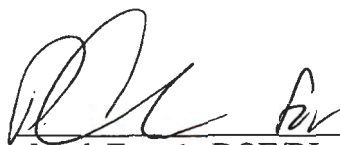


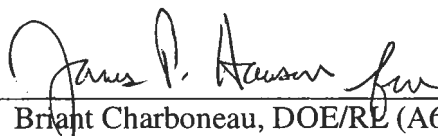
100/300 AREA UNIT MANAGER MEETING  
ATTENDANCE AND DISTRIBUTION  
November 13, 2008

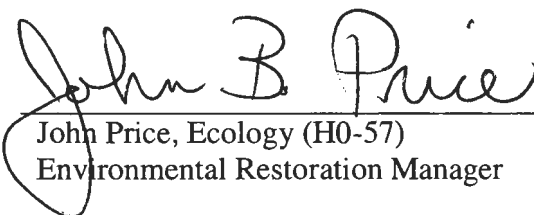
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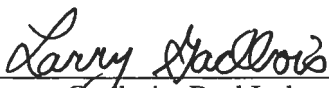
| NAME  | E-MAIL ADDRESS                | MSIN  | COMP  | SIGNATURE                  |
|---|-------------------------------|-------|-------|----------------------------|
| <i>Childers, Heather</i><br><i>Cook, Sylvia</i> | Original +1 copy              | H6-08 | ADREC |                            |
| Chance, Joanne C                                | Joanne_C_Chance@rl.gov        | A3-04 | DOE   |                            |
| Charboneau, Briant L                            | Briant_L_Charboneau@rl.gov    | A6-33 | DOE   |                            |
| Clark, Clifford E                               | Clifford_E_Cliff_Clark@rl.gov | A5-15 | DOE   |                            |
| French, Mark                                    | Mark_S_French@rl.gov          | A6-38 | DOE   |                            |
| Guercia, Rudolph F                              | Rudolph_F_Rudy_Guercia@rl.gov | A3-04 | DOE   | <i>[Signature]</i>         |
| Hake, Naomi M                                   | Naomi_M_Hake@rl.gov           | A3-04 | DOE   |                            |
| Hanson, James P                                 | James_P_Hanson@rl.gov         | A5-13 | DOE   | <i>James P. Hanson</i>     |
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| Shea, Jacqueline                                | JASH461@ECY.WA.GOV            | H0-57 | ECO   |                            |
| Smith-Jackson, Noe'l                            | NSMI461@ECY.WA.GOV            | H0-57 | ECO   |                            |
| Vanni, Jean                                     | Jvan461@ECY.WA.GOV            | H0-57 | ECO   |                            |
| Whalen, Cheryl                                  | CWHA461@ECY.WA.GOV            | H0-57 | ECO   |                            |
| Buelow, Laura                                   | BUELOW.LAURA@EPA.GOV          | B1-46 | EPA   | <i>[Signature]</i>         |

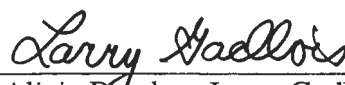
100/300 AREA UNIT MANAGERS MEETING  
APPROVAL OF MEETING MINUTES  
November 13, 2008

APPROVAL:  Date 12/16/08  
Mark French, DOE/RL (A3-04)  
River Corridor Project Manager

APPROVAL:  Date 1-8-09  
Brian Charboneau, DOE/RL (A6-33)  
Groundwater Project Manager

APPROVAL:  Date 1-08-2009  
John Price, Ecology (H0-57)  
Environmental Restoration Manager

APPROVAL:  Date 1-8-09  
Larry Gadbois, Rod Lobos, Laura Buelow,  
or Craig Cameron EPA (B1-46)  
100 Aggregate Area Unit Manager

APPROVAL:  Date 1-8-09  
Alicia Boyd, or Larry Gadbois, EPA  
(B1-46)  
300 Aggregate Area Unit Manager

**100 & 300 AREA UNIT MANAGER MEETING MINUTES****Groundwater and Source Operable Units; Facility Deactivation, Decontamination, Decommission, and Demolition (D4); Interim Safe Storage (ISS); and Mission Completion****November 13, 2008****ADMINISTRATIVE**

- Next Unit Manager Meeting (UMM) - The next meeting will be held December 11, 2008 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. Attachment B documents any delegations received from the agencies.
- Approval of Minutes - The October 2008 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 - Status of action items was performed, and updates provided (Attachment C).
- Agenda: Attachment D is the meeting agenda.

**EXECUTIVE SESSION (Tri-Parties Only)**

No issues were identified, no agreements were documented, and no action items were documented.

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

Attachment 1 provides a status or information for groundwater. No issues were identified, no agreements were documented, and no action items were documented.

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

Attachment 1 provides a status or information for groundwater. Attachment 2 and Attachment 3 are maps outlining a status of information for soil remediation at various waste sites in 100-D and 100-H. No issues were identified, and no actions were documented.

Agreement 1: Attachment 4 provides Ecology approval to use water contained in an abandoned cast-iron water line at 100-H for dust suppression.

Agreement 2: Attachment 5 provides Ecology approval to remove a section of pipe encountered at the 100-H-28:7 confirmatory site in order to facilitate other planned sampling activities.

Agreement 3: Attachment 6 provides Ecology approval for using non-regulated detergent for decontamination of equipment as discussed in the Remedial Design Report/Remedial Action Work Plan for the 100 Areas, DOE/RL-96-17, Section 3.1.5. Use of this method is necessary due to the ineffectiveness of other decontamination methods.

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

Attachment 1 provides a status or information for groundwater. No issues were identified, no agreements were documented, and no actions items were identified.

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

Attachment 1 provides a status or information for groundwater. Attachment 7 provides a status or information for D4/ISS. No issues were identified, no agreements were documented, and no action items were documented.

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

Attachment 1 provides a status or information for groundwater. No issues were identified, no agreements were documented, and no action items were documented.

**300 AREA - 618/10/11 (GROUNDWATER, SOILS, D4/ISS)**

Attachment 1 provides a status or information for groundwater. No issues were identified, and no action items were documented.

Agreement: RL provided an extension request to EPA (see Attachment 8) for additional time to respond to comments on the *Sampling and Analysis Plan for 618-10 and 618-11 Nonintrusive Sampling*, DOE/RL-2008-17. EPA approved the written extension request to November 15, 2008.

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

Attachment 1 provides a status or information for groundwater. Attachment 9 provides a status or information for D4/ISS. No issues were identified, no agreements were documented, and no action items were documented.

**REGULATORY CLOSEOUT DCOUMENTS OVERALL SCHEDULE**

Attachment 10 provides a status or information. No issues were identified, and no action items were documented.

Agreement: Attachment 11 documents RL and EPA approval for backfill concurrence of waste site 600-149:2.

**MISSION COMPLETION PROJECT**

Attachment 12 provides a status or information regarding orphan site evaluations, River Corridor Baseline Risk Assessment, and the Remedial Investigation of Hanford Releases to the Columbia River. No issues were identified, and no action items were documented.

Agreement: Attachment 13 outlines proposed changes to the Remedial Investigation of Hanford Releases to the Columbia River Work Plan and Sampling and Analysis Plan. RL, EPA, and Ecology approved the proposed changes, but are withholding approval of the proposed changes regarding quality control in Section 3.8 of the Sampling and Analysis Plan. Further review of these specific changes is necessary.

**5-YEAR RECORD OF DECISION ACTION ITEM UPDATE**

An updated action item list will be provided at the next UMM. No issues were identified, no agreements were documented, and no action items were documented.

## **Attachment A**

*Cameron, Craig craig.cameron@epa.gov Craig Cameron*

|                           |                             |       |        |                        |
|---------------------------|-----------------------------|-------|--------|------------------------|
| Boyd, Alicia              | BOYD.ALICIA@EPA.GOV         | B1-46 | EPA    | <i>Alicia Boyd</i>     |
| Einan, Dave               | EINAN.DAVID@EPA.GOV         | B1-46 | EPA    |                        |
| Faulk, Dennis A           | FAULK.DENNIS@EPA.GOV        | B1-46 | EPA    |                        |
| Gadbois, Larry E          | GADBOIS.LARRY@EPA.GOV       | B1-46 | EPA    | <i>Larry Gadbois</i>   |
| Lobos, Rod                | LOBOS.ROD@EPA.GOV           | B1-46 | EPA    | <i>Rod Lobos</i>       |
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| Piippo, Rob               | Robert_E_Piippo@rl.gov      | H8-12 | CH     |                        |
| Petersen, Scott           | Scott_W_Petersen@rl.gov     | E6-35 | CH     |                        |
| Robertson, Julie          | Julie_R_Robertson@rl.gov    | E6-35 | CH     | <i>Julie Robertson</i> |
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| Triner, Glen C            | Glen_C_Triner@rl.gov        | E6-44 | CH     |                        |
| Winterhalder, John A      | John_A_Winterhalder@rl.gov  | E6-35 | CH     |                        |
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| Bignell, Dale             | Dale.Bignell@wch-rcc.com    | H4-25 | WCH    | <i>D Bignell</i>       |
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| Clark, Steven W           | steven.clark@wch-rcc.com    | H4-23 | WCH    |                        |
| Darby, John W             | john.darby@wch-rcc.com      | L6-06 | WCH    |                        |
| Donnelly, Jack W          | jack.donnelly@wch-rcc.com   | H4-22 | WCH    | <i>Jack Donnelly</i>   |
| Fancher, Jonathan D (Jon) | jon.fancher@wch-rcc.com     | X9-07 | WCH    |                        |
| Faulk, Darrin E           | default@wch-rcc.com         | L6-06 | WCH    | <i>Darrin Faulk</i>    |
| Fletcher, Jill E          | jfletcher@wch-rcc.com       | H4-22 | WCH    |                        |
| Hadley, Karl A            | karl.hadley@wch-rcc.com     | T2-04 | WCH    |                        |



**Attachment B**

**Attachment C**

100/300 Area UMM  
Action List  
November 13, 2008

| Open (O)/<br>Closed (X) | Action<br>No. | Co. | Actionee  | Project      | Action Description  | Status  |
|-------------------------|---------------|-----|-----------|--------------|---|---|
| O                       | 300-008       | RL  | T. Post   | 100/300 Area | RL shall develop the instructions for documenting D4 completions in the 100 and 300 Areas where no known waste site is under the building, and no releases to soil are documented or expected based on existing data. These instructions shall be added into the respective Removal Action Work Plans after review and approval from the respective lead regulatory agency for the specific Removal Action Work Plans in the 100 and 300 Areas. | Open: 4/12/07;<br>Action: Ongoing action, and are still under development. Instructions are developed and is complete for the 300 Area. RL will submit a TPA Section 9.0 document change notice for the 100 Area. This remains an ongoing task.                                     |
| O                       | 100-149       | RL  | J. Hanson | 100-H        | RL will review the extraction network for the 100-H pump and treat system, and provide recommendations to Ecology for optimization+F40.   | Open: 1/10/08;<br>Action: At the 8/14/08 UMM, additional discussions with Ecology are necessary on the 100-HR-3 optimization, as well as the long-term remedial alternatives. RL and Ecology met on 10/2/08, and a subsequent meeting is scheduled for 10/17/08. Item remains open. |

100/300 Area UMM  
Action List  
November 13, 2008

| Open (O)/<br>Closed (X) | Action<br>No. | Co. | Actionee  | Project    | Action Description   | Status  |
|-------------------------|---------------|-----|-----------|------------|--|---|
| O                       | 300-009       | RL  | M. French | 300 Area   | RL shall brief EPA and Ecology on alternative exposure scenarios for the 300 Area.   | Open: 1/10/08;<br>Action: RL met with EPA, and based on input received, RL will provide an update after further internal discussion.  |
| X                       | 100-159       | RL  | J. Hanson | General    | RL shall follow-up with Ecology and EPA on well sampling backlog, and discuss recommended actions.   | Open: 6/12/08;<br>Action: RL reported the backlog is being worked, and plan to have backlog worked off by 9/30/08. RL provided an update to the agencies, and this item was closed at the 10/15/08 UMM. |
| X                       | 100-162       | RL  | M. French | Col. River | RL shall provide Ecology and EPA with a task level/critical path schedule for the Remedial Investigation for the Columbia River. RL shall provide the schedule to Ecology and EPA by the next UMM. | Open: 8/14/08;<br>Action: EPA requested the schedule as well on 9/11/08. Action item updated to reflect this point. RL shall provide the schedules by the week of 9/15/08. Item closed at 10/15/08 UMM. |
| X                       | 100-163       | RL  | T. Post   | 100-D      | RL shall provide Ecology with a status on the 100-D Orphan Site Evaluation Report.   | Open: 8/14/08;<br>Action: RL submittal in progress, and item closed at 10/15/08 UMM.  |

100/300 Area UMM  
Action List  
November 13, 2008

| Open (O)/<br>Closed (X) | Action<br>No. | Co. | Actionee  | Project | Action Description   | Status   |
|-------------------------|---------------|-----|-----------|---------|--|--|
| O                       | 100-164       | RL  | T. Post   | 100-D   | RL shall meet with Ecology to discuss options and path-forward for waste sites 100-D-31, 100-D-63, 100-D-73, and 100-D-77.   | Open: 8/14/08;<br>Action: RL stated a meeting is scheduled for the week of 9/15/08.              |
| O                       | 100-165       | ECY | J. Price  | General | Ecology shall schedule a meeting with RL following a review of the well variances provided by RL as prescribed in Action Item 100-158.   | Open: 9/11/08;<br>Action: Discussions between RL and Ecology continue.                           |
| O                       | 100-166       | RL  | J. Hanson | General | RL shall schedule a meeting to discuss Ecology's comments on the Calendar Year (CY) 2007 100 Area Pump and Treat Report.   | Open: 9/11/08;<br>Action: Discussions between RL and Ecology continue.                           |
| O                       | 100-167       | RL  | J. Hanson | 100-H   | RL and various contractors shall meet to discuss and assess waste sites upgradient of one specific well in the 100-H Area, and the groundwater monitoring data.                    | Open: 9/11/08;<br>Action: RL has completed its review, and plans to share data with Ecology.     |
| O                       | 100-168       | RL  | M. French | 100-K   | RL shall provide EPA with the 118-K-1 burial ground remediation schedule to meet 2012.   | Open: 9/11/08;<br>Action: RL still owes EPA the schedule.  |
| X                       | 100-169       | RL  | M. French | 100-B/C | RL shall provide EPA with the schedule for strategy approach for 100-C-7 by September 30, 2008, as well as the remediation schedule for the remaining waste sites by the next UMM. | Open: 9/11/08;<br>Action: Schedules were provided, and this item was closed at the 11/13/08 UMM. |
| O                       | 100-170       | RL  | M. French | General | RL shall provide EPA with a copy of the other IC assessments performed this year across the Hanford Site.  | Open: 9/11/08;<br>Action: Item remains open.   |

**Attachment D**

100/300 Area Unit Manager Meeting  
November 13, 2008  
Washington Closure Hanford Building  
2620 Fermi Avenue, Richland, WA 99354  
Room C209; 1:00-4:30 p.m.

1:00 - 1:30 p.m.

**Executive Session (Tri-Parties Only):**

- None

1:30 p.m. - 1:50 p.m.

**Administrative:**

- Approval and signing of previous meeting minutes (October 2008)
- Update to Action Items List
- Next UMM (12/11/2008, Room C209)

1:50 - 4:00 p.m.

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

- 100-F & 100-IU-2/6 Areas (Greg Sinton/Chris Smith)
- 100-D & 100-H Areas (Jim Hanson/Tom Post/Vanessa Mastren)
- 100-K Area (Jim Hanson)
- 100-N Area (Naomi Hake, Rudy Guercia, Jim Hanson)
- 100-B/C Area (Greg Sinton, Chris Smith)
- 300 Area - 618-10/11 exclusively (Chris Smith)
- 300 Area (Jim Hanson/Chris Smith/Rudy Guercia)
- Regulatory Closeout Documents Overall Schedule (Chris Smith)
- Mission Completion Project (Jamie Zeisloft/John Sands)

4:00 - 4:15 p.m.

**Special Topics/Other**

- 5-Year Record of Decision Action Item Update (Jim Hanson/Alicia Boyd)

4:15 - 4:30 p.m.

**Adjourn**

## **Attachment 1**

①

**100/300 Areas Unit Managers Meeting,  
November 13, 2008**

**100-FR-3 Operable Unit—Bill Barrett**

Most of the wells in the 100-F Area were sampled in early November. New well 199-F8-7 has not been sampled yet, but is scheduled quarterly in FY 2009. Wells in the 600 Area are also being sampled, but many need electrical maintenance first.

**100-HR-3 Groundwater OU - Dave Shrimpton**

- HR-3 Treatment System
  - For the period October 1 to 31, 2008:
    - The system operated normally.
    - Total average flow through the system was approximately 129 gpm. Extraction well 199-H4-63 was out of service for 13 days due to pump problems and is now back in service. Extraction well 199-H4-4 was out of service for 24 days due to low river level. It is operated intermittently when water levels are high enough.
    - Average influent hexavalent chromium concentration for H Area was approximately 14  $\mu$ g/L.
    - Average influent hexavalent chromium concentration for D Area was approximately 460  $\mu$ g/L.
  
- DR-5 Treatment Status
  - For the period October 1 to 31, 2008:
    - System operated normally.
    - Total average flow through the system was approximately 36 gpm.
    - The average influent hexavalent chromium concentration was approximately 654  $\mu$ g/L.
  
  - DR-5 Optimization status: In accordance with the agreement reached at the IAMIT on October 16, 2008, discharge to the ISRM Pond will cease by January 31, 2009. Plant modifications are already under way to accomplish this; construction is expected to be complete in mid-December. Filtrate and rinsate from resin regeneration will be returned to the IX system influent tank, and plans to blend it into the effluent stream and send it directly to the injection well are under review. Also as agreed to at the IAMIT, plans are being made to empty the ISRM Pond and apply fixative by September 30, 2009; and to dismantle the pond by December 31, 2011.
  
- Remediation Process Optimization (RPO)
  - SWG-38338, *Remedial Process Optimization for the 100-D Area Technical Memorandum*, was delivered to RL on September 15, 2008. A series of briefings and discussions with EPA and Ecology was conducted, with workshops held on September 16, October 2-3, and October 17, 2008. The following has been discussed with Ecology:
    - RPO will be implemented in two phases. Phase I will address the 2012 river protection goal and expand the existing P&T systems. It will be

**100/300 Areas Unit Managers Meeting,  
November 13, 2008**

implemented under an ESD to the existing interim ROD for the 100-HR-3. The ESD is currently being prepared. Phase II will address the 2020 plume cleanup goal by using bio- treatment for the vadose zone and groundwater, supplemented by pump and treat. It will be implemented under an interim ROD Amendment that will apply to all of the groundwater and source interim RODs in the 100 Areas.

- The methodology for down selection of Technologies and Alternatives for both Phases I and II will be documented in a Technical Memorandum.
- Alternatives to be considered in the Focused Feasibility Study and Proposed Plan to support the interim ROD Amendment are: do nothing; continue current actions; and use bio- treatment in the vadose zone and groundwater. DOE may propose use of chemical, rather than biological, treatment in some locations.
- The report on the Groundwater-Columbia River Interactions Technical Workshop has been delivered to DOE/RL.
- Engineering is finalizing a resin test plan for the purpose of optimizing resins at the existing pump and treat system and providing information on resin selection to the RPO team. The purchase order for fabrication of a resin test skid was awarded in October, with delivery planned for January 2009.
- Horn Investigation
  - DOE/RL-2008-02, Decisional Draft, *Hydrogeological Summary Report for the 600 Area Between 100-D and 100-H for the 100-HR-3 Groundwater Operable Unit*, has been transmitted to DOE/RL for review. Project continues to monitor water level and conduct quarterly sampling.
- Deep Chromium Investigation
  - This investigation was kicked off in October to fulfill a CERCLA 5-Year Review Action. It will include four wells drilled into the RUM in H Area and a tracer test.
- IAMP Review
  - A review of the IAMP was kicked off in October to bring it up to date and consistent with the RD/RA Work Plan. It is intended to issue supplements to these documents until they are superseded by the RD/RA Work Plan implementing the final ROD.
- EM-22 Technology Projects
  - Investigation for mending ISRM Barrier: Well 199-D4-26 was injected with 2400 kg of nanometer-size zero valent iron in August. Initial results indicate the iron was communicated into the aquifer > 5 m away from the injection well.
  - EC Treatability Test: Further comments from the EM-22 peer review meeting held July 29, 2008 are being considered.
  - 100-D Southern Plume Investigation: A draft report on the southern plume chromium source investigation in 100-D was submitted to DOE/RL in September.
  - 100-D Northern Plume Investigation: Drilling of three groundwater monitoring wells was completed in October. Vadose zone characterization using the Hydraulic Hammer Rig is expected to begin early in fiscal year 2009.

**100/300 Areas Unit Managers Meeting,  
November 13, 2008**

- In situ Biostimulation: Emulsified vegetable oil was successfully injected in August. Data for the injection and initial subsurface reactions will be compiled over the next few months.
- RI/FS Work Plan  
The RI/FS Work Plan Volume I (100 Area) and Addendum I (100-D/H Decision Unit), both Decisional Draft A, were submitted to DOE/RL for review in September. Extensive comments have been received, reviewed and a path forward developed.

**100-KR-4 Groundwater OU - Julie Robertson**

- Monthly monitoring of cultural resources for 100-KR-4 was performed on October 24, 2008. No problems were observed.
- K Area RI/FS Work Plan
  - The initial draft of Addendum 2 (K Area) of the Integrated 100 Area RI/FS Work Plan was issued for contractor review.
- 100-KR-4 Remediation Treatment Status
  - For the period of October 1-31, 2008:
    - System operated normally during October but at a slightly reduced flow later in the month due to mechanical and communications issues associated with the injection wells. Late in the month, and extending into November, there have been intermittent facility outages due to injection well high water level alarms associated with work on the transducers.
    - Total average flow through the system was approximately 266 gpm.
    - Average influent hexavalent chromium concentration was 36  $\mu$ g/L.
- KR-4 Expansion
  - Acceptance testing of the facility is on schedule for completion in mid-December. Resin loading was initiated the week of November 10, 2008. Blanks have been placed in the lines extending from extraction well 199-K-144 (elevated tritium) and to injection well 199-K-171 (elevated hexavalent chromium).
- KX/KR4 Well Realignment
  - Given that groundwater from KX extraction well K-199-144 cannot be injected into the KX injection wells (due to high tritium levels), the predicted flow for the KX system once it becomes fully operational is limited to approximately 470 gpm. Efforts are underway to evaluate options to realign the KX and KR4 system wells to provide increased flow through the systems.
- KW Groundwater Remediation
  - KW remediation treatment status for the period of October 1-31, 2008:
    - System operated normally. Well 199-K-139 was shut down for one week toward the end of the month to support depth discrete sampling at its companion well 199-K-168. Extraction well flows rates were adjusted to maintain system flow.

**100/300 Areas Unit Managers Meeting,  
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- Weekly operational hexavalent chromium field screenings of the KW system influent and effluent were not accomplished for the weeks of October 9 and October 16, 2008. Although actual data is not available for this period to confirm that facility effluent limits were not exceeded, the KW system is very efficient, and effluent levels have measured zero consistently since May 2008.
- Total average flow through the system was approximately 102 gpm.
- Average influent hexavalent chromium concentration was 63 µg/L.
  
- KW Expansion
  - Design work is underway to support the expansion of the KW pump-and-treat system from 100 gpm to 200 gpm. Three of the four newest KW characterization wells are being considered for conversion to extraction wells. Flows associated with potential extraction and injection well locations are being modeled, and the draft revision to the KW RDR/RAWP is being prepared.

**100-KR-4: K-Basins Monitoring Task—Duane Horton**

- Leak Detection Monitoring Results:
  - The most recent monthly sampling of wells close to the KE Basin was done in October 2008. Well 199-K-29 was not sampled as scheduled because the well is in an area of D&D activities and could not be accessed.
  - The latest available monthly results are for September. With the exception of well 199-K-141, all September monthly results for tritium, gross alpha and gross beta are on level trend with recent historical data.
  - The alkalinity, some metals and anions, gross beta, specific conductance, and tritium concentrations in well 199-K-141 decreased abruptly in the June and July time frame before returning to more normal concentrations in August and September (Figure 1). The effect is compatible with a transient dilution event but the specific reason is not known.
  - There is no indication of groundwater impacts attributable to leakage of shielding water from either Basin.
  
- Monitoring Well Network:
  - The most recent routine quarterly sampling of K-Basins monitoring network wells took place in October 2008. Results are not yet available.
  - The most recent available results are from July 2008.
  - Several contaminants including chromium, nitrate, and specific conductance have been increasing in well 199-K-34 since early 2007 to early 2008. The well is influenced by new extraction wells that went online in January 2007 and the contaminants may be drawn to the well by extraction.
  - The next routine quarterly sampling of K-Basins network wells is scheduled for January 2009 and is coordinated with the monthly sampling event.
  
- Reporting:
  - The most recent quarterly, RCRA groundwater report was for January through March 2007 (SGW-38473).

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- The fiscal year 2007 annual groundwater report (DOE/RL-2008-01) is available at <http://www.hanford.gov/cp/gpp/library/gwrep07>.
- The next quarterly, RCRA groundwater report, for the period April through June 2008 is in external review and scheduled for release in November.

Figure 1. Tritium and Specific Conductance in Well 199-K-141.

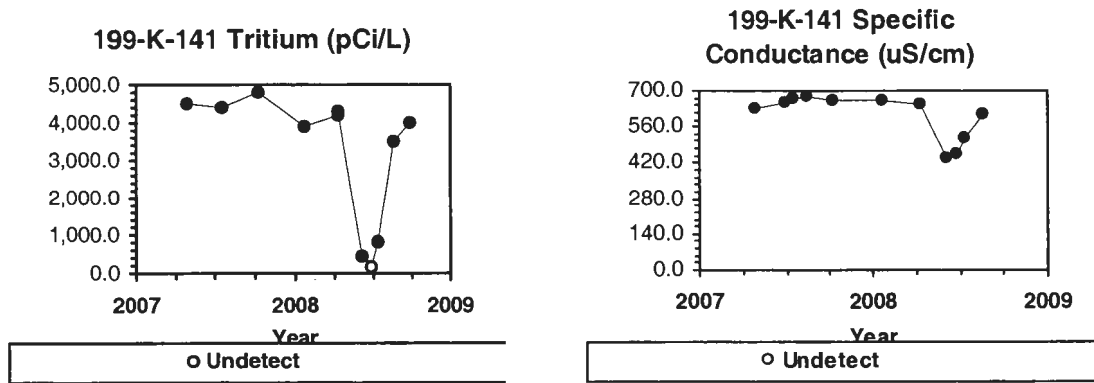
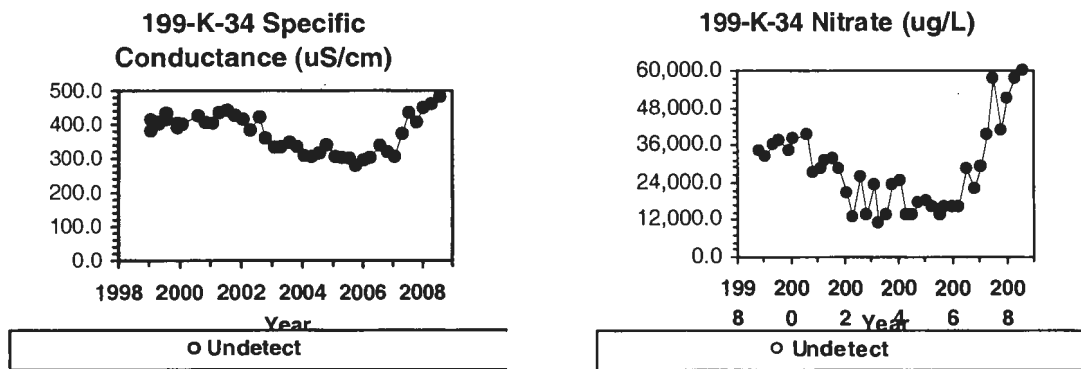


Figure 2. Specific Conductance and Nitrate in Well 199-K-34.

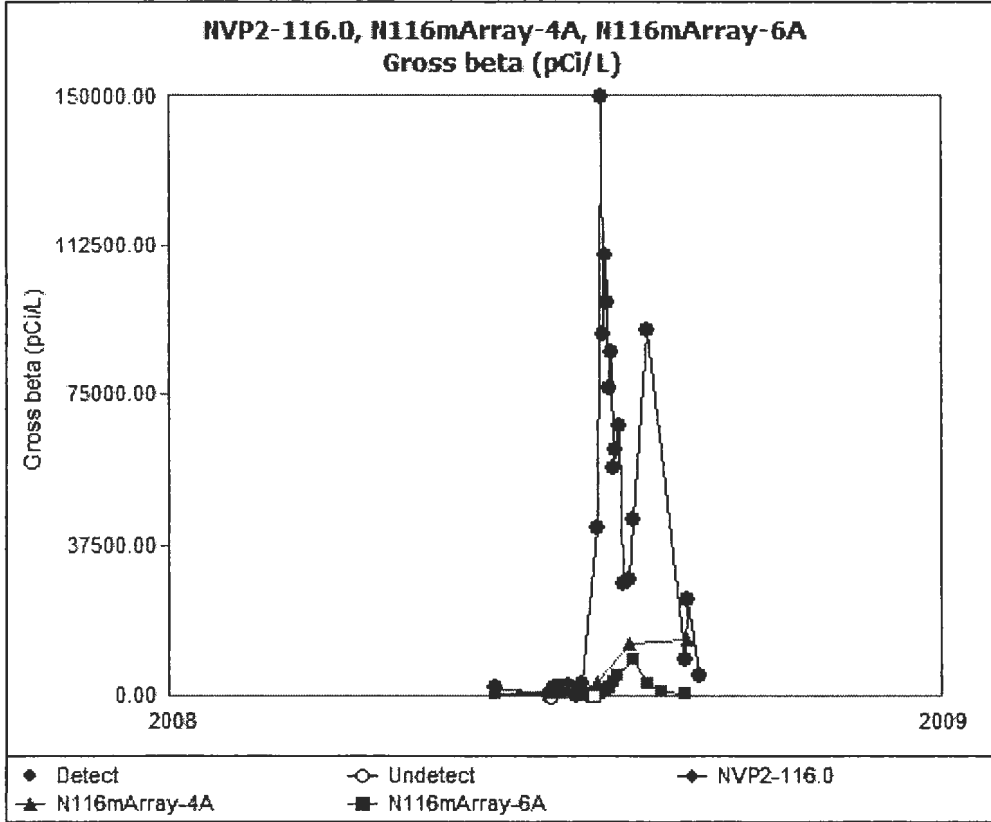


**100-NR-2 Groundwater OU – Bill Barrett**

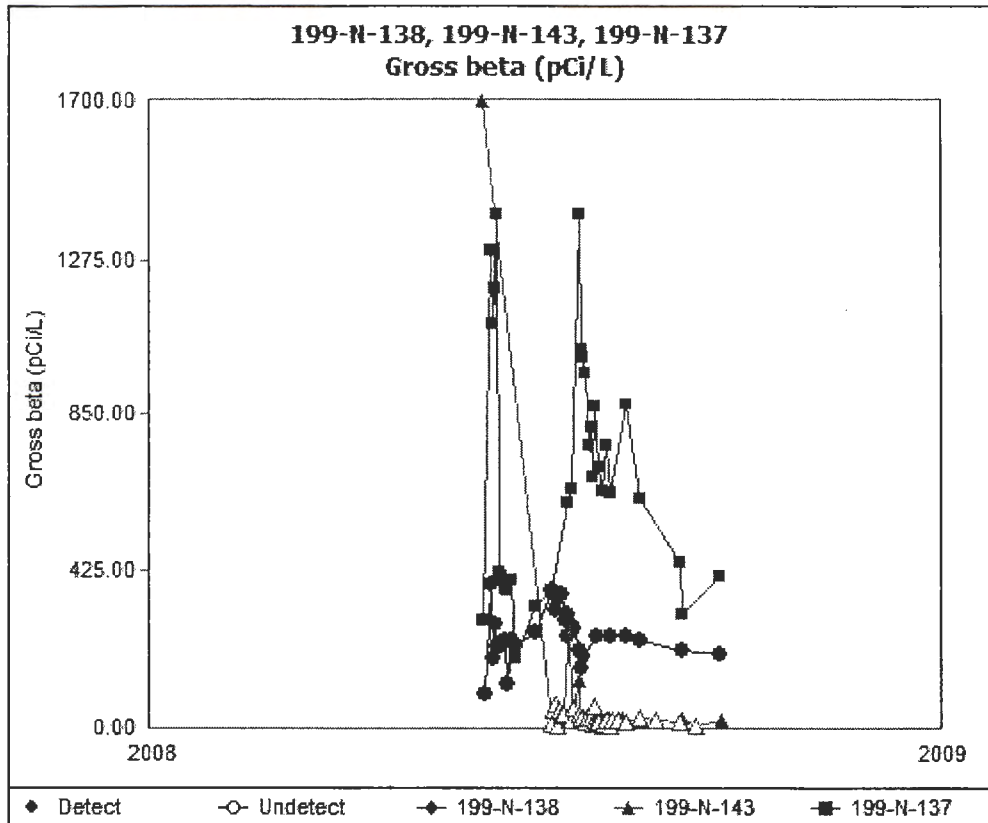
Since injections ceased in July, gross beta concentrations have been generally declining in wells and aquifer tubes associated with the apatite barrier. The highest beta level in a well was 51,000 pCi/L in well 199-N-162 on July 15. The current level in this well is 86 pCi/L as of September 9. The highest gross beta level detected was in aquifer tube NVP2-116.0, with a maximum of 150,000 pCi/L on July 24. The current level is 5100 pCi/L as of September 9. The graph below shows data from June 3, 2008 (initial background levels before injections began) through September 30 for three aquifer tubes on the down river portion of the barrier. Aquifer tube NVP2-116.0 is shown with two other aquifer tubes immediately down river from it, N116.0Array4A and N116.0Array6A, for comparison purposes. The general trend on two of the three aquifer tubes is declining values for gross beta. N116.0Array4A shows a slight upward trend from the previous month's data. The second graph shows gross beta values for barrier/injection wells at the upriver (N-138),

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middle (N-143), and downriver (N-137) end of the barrier, from June 3, 2008 through September 9, 2008. All three wells show an increase in gross beta following injections, with a general declining trend in values following injections.



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Wells continue to show non-detects for lead through the September 9 performance monitoring.

All wells show an initial increase in most metal concentrations following an injection. These values generally decrease after injections cease, and return to near-background levels in most cases.

- Apatite Barrier Injections

- Monthly performance monitoring/sampling will continue through the fall, winter, and into next spring. All 45 sampling points are scheduled to be sampled for each monthly sampling event, weather and river level permitting. Wells screened only in the Hanford Formation are not able to be sampled at low river levels, due to a lack of water in the wells. Freezing conditions can also limit the sample set; aquifer tubes can become frozen and we are unable to pump water from the extended tubes. Sampling will be scheduled during milder weather conditions as much as possible, to ensure the best data set possible.

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- Phyto remediation contract releases have been issued to PNNL, research work to continue.

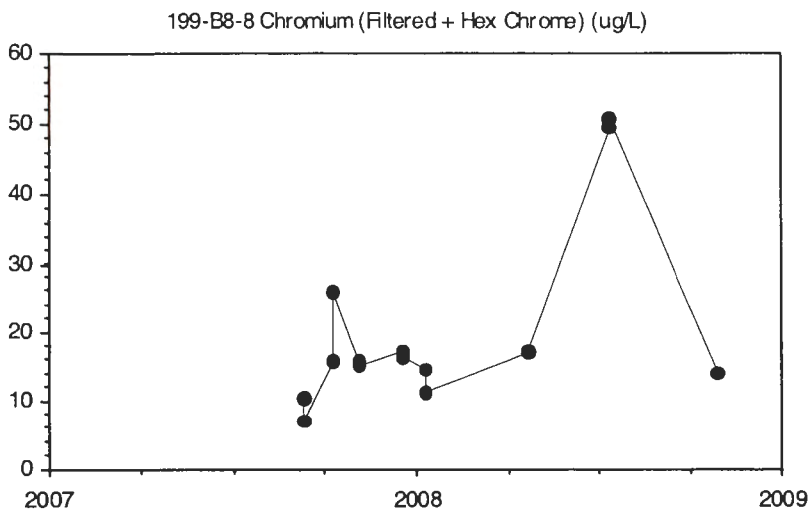


- Total Petroleum Hydrocarbon Investigation
  - Initial field sampling at the Columbia River interface (150-200 mg/kg observed two to four feet below surface) characterization will continue.

**100-BC-5 Operable Units—Bill Barrett**

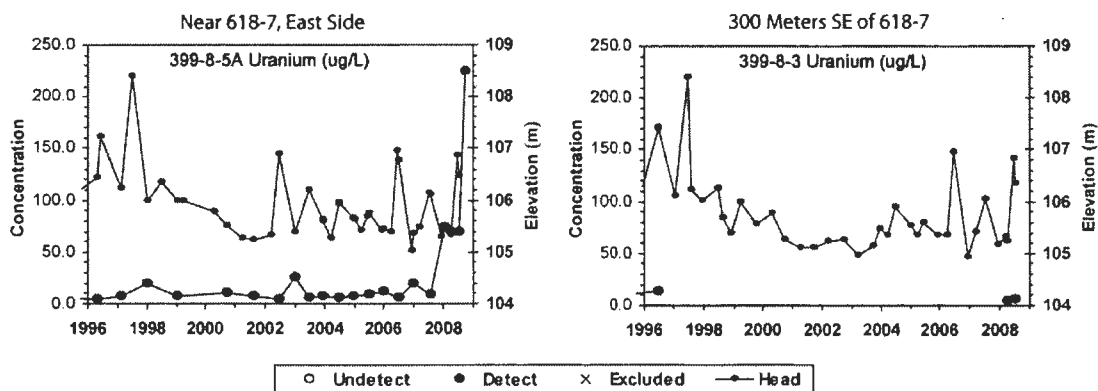
Well 199-B8-8 was sampled in October to follow up on the July increase in chromium concentration. The concentration dropped to 14  $\mu\text{g/L}$ , back in trend with earlier data. Well 199-B8-8 will be sampled monthly during FY 2009. Nearby well 199-B8-7 also had low chromium, 8.3  $\mu\text{g/L}$ . This well is being sampled quarterly.

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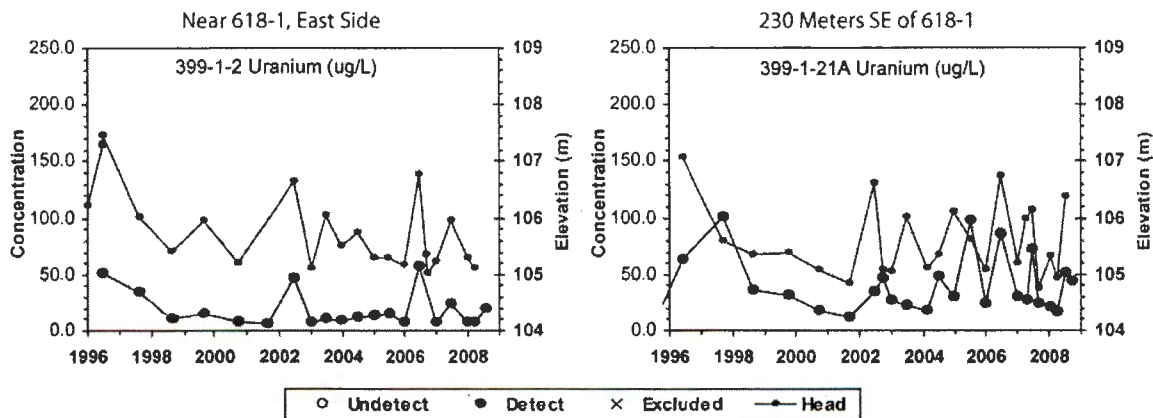
**300-FF-5 Operable Unit—Jane Borghese/Bob Peterson**

- Operations and Maintenance Plan Activities
  - *300 Area Subregion:* Uranium results for the June sampling event are now available and a plume map is being prepared. Estimates for the area, groundwater volume, and mass of uranium in the plume are being updated for the annual groundwater report. Concentration patterns are as expected, with higher values inland near former waste sites and lower values near the river because of mixing between groundwater and river water. Some values are higher this year than in previous years.
  - *618-7 Burial Ground:* New analytical results for monitoring conducted immediately downgradient from the burial ground remedial action site suggest an increase in uranium concentrations in groundwater. Awaiting results from other downgradient wells.



- *618-1 Burial Ground:* More frequent sampling of two wells near the 618-1 burial ground began in September, but new results do not suggest changes in groundwater conditions that might be related to remedial actions.

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- *618-11 Burial Ground Subregion:* Most recent analytical results are for samples collected during late September. Tritium results are consistent with long-term trends, i.e., generally decreasing near the burial ground, with increases noted at some downgradient wells as the plume continues to migrate eastward.
- *618-10 Burial Ground Subregion:* Most recent analytical results are for samples collected in late summer/early fall. Uranium and tributyl phosphate concentrations remain low and consistent with established trends.
- *Update to Sampling and Analysis Plan (DOE/RL-2002-11, Rev. 2):* Final draft is in CHPRC concurrence.
- **Work Plan for the 300 NPL Decision Unit:**
  - Draft graphics that describe various components of the 300 NPL Conceptual Site Model are in the process of being updated in response to comments received during the September 16 workshop.
  - An annotated topical outline for portions of the work plan that pertain to preliminary remedial action technologies has been developed.
- **Other Activities:**
  - *Report on Uranium in 300 Area Drilling Samples:* The report entitled “Uranium Contamination in the 300 Area: Emergent Data and their Impact on the Source Term Conceptual Model” has been distributed (PNNL-17793). This report describes the laboratory analytical results for uranium on samples collected during the recent VOC Investigation (PNNL-17666).
  - *Report on Groundwater Modeling for the 300 Area:* The report “Three-Dimensional Groundwater Models of the 300 Area at the Hanford Site, Washington State” (PNNL-17708) has been distributed.
  - *Annual Groundwater Report:* Section 2.12 “300-FF-5 Operable Unit” is currently being prepared.
  - *Integrated Field-Scale Challenge Project, 300 Area:* Installation of fiber optic cables along the river channel adjacent to the 300 Area occurred during the last week of October. This project is attempting to use temperature variations, as measured along the cables, to identify areas of preferential groundwater discharge through the riverbed. Interpretation of

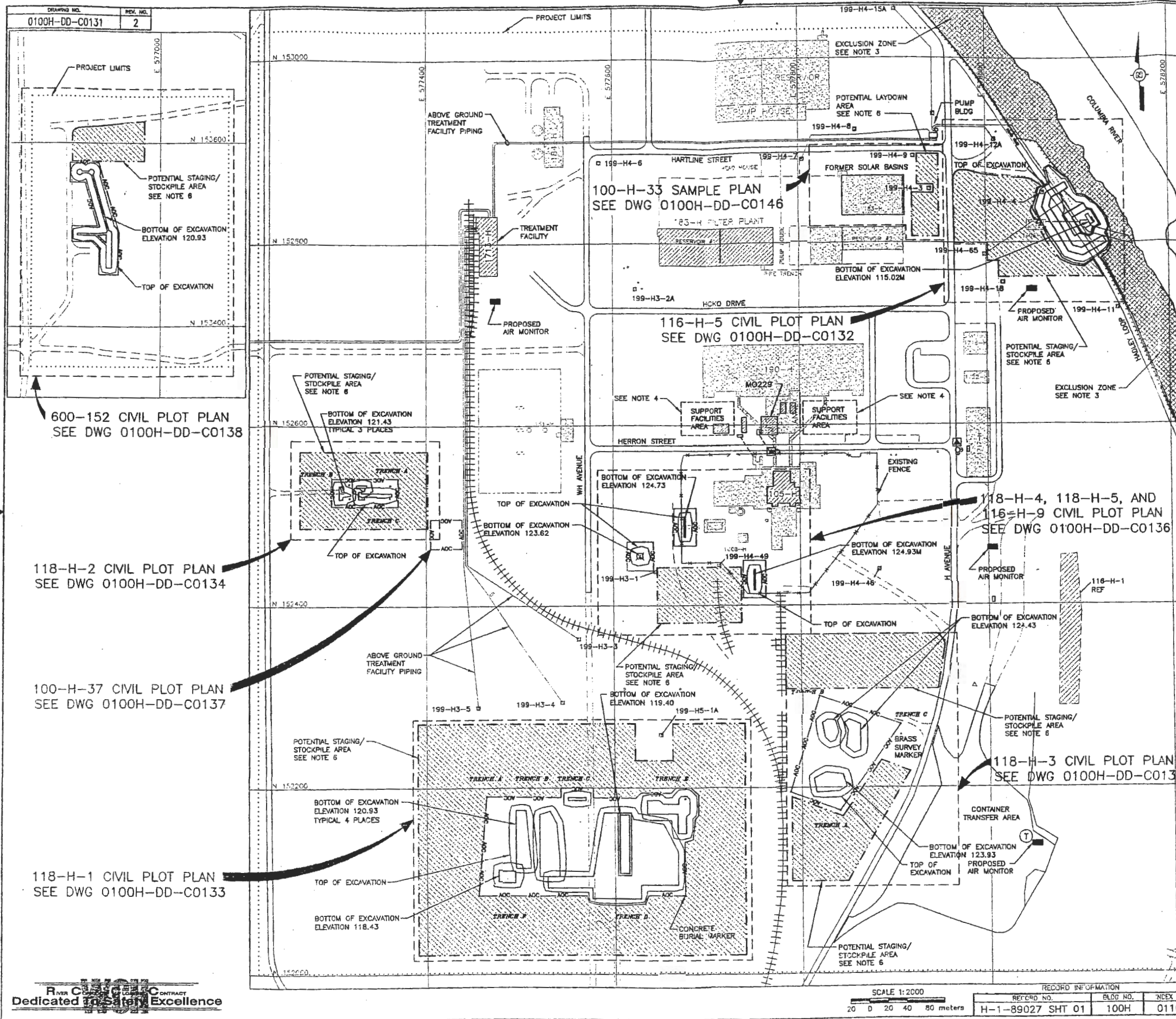
**100/300 Areas Unit Managers Meeting,  
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geophysical data collected earlier this year reveals a strong correlation between the electrical conductivity of riverbed sediment and the stratigraphic units exposed.

## **Attachment 2**



**Attachment 3**



DRAWING NO. 0100H-DD-C0131 REV. NO. 2

PROJECT LIMITS

POTENTIAL STAGING/ STOCKPILE AREA SEE NOTE 6

BOTTOM OF EXCAVATION ELEVATION 120.93

TOP OF EXCAVATION

600-152 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0138

118-H-2 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0134

100-H-37 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0137

118-H-1 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0133

100-H-33 SAMPLE PLAN SEE DWG 0100H-DD-C0146

116-H-5 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0132

118-H-4, 118-H-5, AND 116-H-9 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0136

118-H-3 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0135

PROPOSED AIR MONITOR

POTENTIAL STAGING/ STOCKPILE AREA SEE NOTE 6

BOTTOM OF EXCAVATION ELEVATION 121.43 TYPICAL 3 PLACES

TOP OF EXCAVATION

118-H-2 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0134

100-H-37 CIVIL PLOT PLAN SEE DWG 0100H-DD-C0137

POTENTIAL STAGING/ STOCKPILE AREA SEE NOTE 6

BOTTOM OF EXCAVATION ELEVATION 120.93 TYPICAL 4 PLACES

TOP OF EXCAVATION

BOTTOM OF EXCAVATION ELEVATION 118.43

CONCRETE BURIAL MARKER

SCALE 1:2000

20 0 20 40 80 meters

RECORD INFORMATION

REF. NO. H-1-89027 SHT 01 BLDG. NO. 100H INDEX NO. 0110

NOTES

- SEE DRAWING 0100H-DD-G0009 FOR GENERAL ABBREVIATIONS AND SYMBOLS LIST.
- SUBCONTRACTOR TO INSTALL AIR MONITORS AND PROVIDE ELECTRICAL POWER TO AIR MONITOR STATIONS SHOWN AND MAINTAIN STATIONS IN COMPLIANCE WITH THE SUBCONTRACT DOCUMENTS. AIR MONITOR STATION EQUIPMENT PROVIDED BY CONTRACTOR. SUBCONTRACTOR SHALL MAINTAIN VEHICLE ACCESS TO AIR MONITOR STATIONS FOR THE DURATION OF PROJECT.
- NO PROJECT ACTIVITIES MAY TAKE PLACE, INCLUDING PEDESTRIAN TRAFFIC, OUTSIDE OF THE PROJECT LIMITS OR INSIDE EXCLUSION ZONE WITHOUT WRITTEN AUTHORIZATION FROM THE CONTRACTOR.
- SUBCONTRACTOR SHALL SUPPLY SUPPORT TRAILER(S) THAT ARE IN ADDITION TO THE EXISTING CONTRACTOR SUPPORT FACILITY. INSTALLATION SHALL BE COORDINATED WITH THE CONTRACTOR.
- SUBCONTRACTOR SHALL SUPPLY SURVEY AND DECONTAMINATION STATION. INSTALLATION SHALL BE COORDINATED WITH THE CONTRACTOR.
- STAGING OF MATERIAL SHALL OCCUR WITHIN THE AOC/WASTE SITE BOUNDARY UNLESS DIRECTED BY CONTRACTOR. STAGING OF MATERIAL OUTSIDE THE AOC/WASTE SITE BOUNDARY, SHALL HAVE PRIOR APPROVAL IN WRITING BY THE CONTRACTOR.
- LAYDOWN AREA SHALL BE USED FOR STAGING OF SAMPLE MATERIAL AND EQUIPMENT. STAGING OF MATERIAL OUTSIDE THE LAYDOWN AREA SHALL HAVE PRIOR APPROVAL BY THE CONTRACTOR BEFORE PROCEEDINGS.

DOCUMENT CONTROL *1/31/09*

| REV. | DATE     | DESCRIPTION                     | DRAWN BY | CHECKED BY | INSP. BY | DATE |
|------|----------|---------------------------------|----------|------------|----------|------|
| 1    | 10/11/07 | ISSUED FOR CONSTRUCTION         | JUN      | CAB        | TMB      | JE   |
| 2    | 10/11/07 | ISSUED FOR BID TO ADD NEW SITES | JUN      | CAB        | TMB      | JE   |
| 3    | 02/08/07 | ISSUED FOR BID                  | JUN      | CAB        | TMB      | RA   |

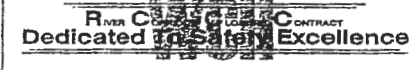
U.S. DEPARTMENT OF ENERGY  
DOE RICHLAND OPERATIONS OFFICE  
RIVER CORRIDOR CLOSURE CONTRACT

WASHINGTON CLOSURE HANFORD LLC.  
RICHLAND, WASHINGTON

100 H AREA  
100 H BURIAL GROUNDS AND REMAINING SITES  
OVERALL WASTE SITE LOCATION PLAN

|             |                    |               |
|-------------|--------------------|---------------|
| WCH JOB NO. | DOE CONTRACT NO.   | CADD FILENAME |
| 14655       | DE-AC06-05RL-14655 | 1HDC0131.DWG  |

|      |                |          |
|------|----------------|----------|
| TASK | DRAWING NO.    | REV. NO. |
| 100H | 0100H-DD-C0131 | 2        |



**Attachment 4**

(4)

**^WCH Document Control**

141906

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**From:** Saueressig, Daniel G  
**Sent:** Wednesday, November 05, 2008 12:32 PM  
**To:** ^WCH Document Control  
**Subject:** FW: 100 H FIRE LINE WATER SAMPLE  
**Attachments:** basis for use of raw water at 100-D 10-22-07a.docx; basis for use of raw water at 100-D 10-22-07.doc

Please provide a chron number. This email documents a regulatory agreement.

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
420-6835

---

**From:** Vanni, Jean (ECY) [mailto:jeva461@ECY.WA.GOV]  
**Sent:** Wednesday, November 05, 2008 8:29 AM  
**To:** Saueressig, Daniel G  
**Cc:** Post, Thomas C; Buckmaster, Mark A; Jones, Mandy E; Smith-Jackson, Noe'l; Smith-Jackson, Noe'l; Price, John  
**Subject:** RE: 100 H FIRE LINE WATER SAMPLE

Dan, Ecology supports using water from the 10 in cast iron pipeline encountered during the excavation at 100-H cited below as dust suppressant. Attached is our water use agreement for the 100-D area. Ecology requires you use a similar approach for this and other encounters of pipeline waters at 100-H. Please have this captured in the 100/300 Area UMM minutes. If you have any questions, please call me.

Thank you, Jean

PS: I've attached a word -2003 version in case your computers haven't been updated to 2007. They're the same, just different format.

Jean Vanni-Environmental Specialist  
Washington State Department of Ecology  
Nuclear Waste Program-Clean Up Section  
3100 Port of Benton Blvd, Richland  
Phone 509-372-7930, Fax 372-7971

---

**From:** Saueressig, Daniel G [mailto:dgsauere@wch-rcc.com]  
**Sent:** Tuesday, November 04, 2008 9:53 AM  
**To:** Vanni, Jean (ECY)  
**Cc:** Post, Thomas C; Buckmaster, Mark A  
**Subject:** 100 H FIRE LINE WATER SAMPLE

Jean, we encountered a 10 inch cast iron fire water line in an excavation being dug for confirmatory sampling at

11/5/2008

141906

100-H and would like to request your concurrence, consistent with the 100-D area water agreement, to use this water for dust suppression.

I've attached a drawing showing the area being excavated and the portion of the fire line that will be impacted by the excavation. Field screening for IH and rad found nothing and a sample was taken and analyzed for hex chrome, also attached.

We don't know the amount of water in this line, but estimate it could hold anywhere from 2,000-5,000 gallons of water. Currently plans are to pump the water into a tanker truck for use as dust suppression.

Let me know if you concur with our path forward.

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
420-6835

-----Original Message-----

From: Price, John (ECY) [<mailto:Jpri461@ECY.WA.GOV>]  
Sent: Monday, October 15, 2007 11:02 AM  
To: Buckmaster, Mark A  
Cc: Vanni, Jean; Jones, Mandy E; Zeisloft, Jamie  
Subject: Water agreement

Mark, this is the revised agreement for use of excess water. This reflects some changes from what I originally sent to you, but should still be very practical with you.

If you have any concerns, please share them with Jean.

Let me (or Jean) know if you're okay with these. We can probably still get these into the October UMM minutes, even though we didn't talk about it at the meeting.

(1) WCH is currently working west of the 183-D sedimentation basin. WCH accumulated and tested 130 gallons of uncontaminated water from a 36" clean water line. Testing shows exceedance of secondary drinking water standards (Fe, Mn, Al), but no exceedance of primary standards. Ecology approves of re-use of that water for dust suppression.

(2) There is a 6" clean water line by the DR reactor. Ecology needs to

11/5/2008

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see hexavalent chromium results, and whatever radiological results WCH has, to approve of re-use of the water for dust suppression in the in-process cells at the burial ground.

(3) WCH expects to encounter many clean water pipes in the northern zone (along Palouse Avenue) of the D/DR reactor area. WCH will follow a standard protocol to open and check the lines for water. They do field screening for volatile organics and radioactivity. WCH expects these to be clean water pipes based on (a) review of engineering drawings, (b) the size and construction of the lines, and (c) presence of nearby clean water appliances like fire hydrants. Waste lines in that area are much deeper (8 - 9 meters below ground). To have confidence in this approach, Ecology requires field testing for Hexavalent Chromium using HACH field test methods/pocket colorimeter on all pipe waters and XRF on any spills on soils. These results will determine the need for further sampling.

Additionally, When WCH can't positively identify clean water lines using these attributes, they will do 'full suite' sampling of the water.

If they encounter a "nominal amount" of water (tens to a few hundred gallons), and confirm it to be clean, they will re-use the water for dust suppression in active remedial excavation areas.

WCH will not over-apply re-used water for dust suppression. In other words, they will not increase their application rate above their normal application rate. However, this should not be a concern because of the requirement for hundreds to a couple thousand gallons per day, depending on the season and what work is going on.

## **Attachment 5**

**^WCH Document Control**

141990

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**From:** Saueressig, Daniel G  
**Sent:** Wednesday, November 12, 2008 4:01 PM  
**To:** ^WCH Document Control  
**Subject:** PIPE ENCOUNTERED AT 100-H-28:7 CONFIRMATORY SITE

Please provide a chron number. This email documents a regulatory agreement.

Thanks,

Dan Saueressig  
420-6835

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
420-6835

---

**From:** Vanni, Jean (ECY) [mailto:jeva461@ECY.WA.GOV]  
**Sent:** Thursday, October 23, 2008 11:50 AM  
**To:** Saueressig, Daniel G; Buckmaster, Mark A  
**Subject:** pipe at h

Mark, Replace the section of 100-H-28:7 filtered water pipe removed to facilitate other sampling into the excavation and deal with it at site disposition.

Jean

Thanks!

Jean Vanni-Environmental Specialist  
Washington State Department of Ecology  
Nuclear Waste Program-Clean Up Section  
3100 Port of Benton Blvd, Richland  
Phone 509-372-7930, Fax 372-7971

11/12/2008

**Attachment 6**

**^WCH Document Control**

**From:** Saueressig, Daniel G  
**Sent:** Wednesday, November 12, 2008 3:58 PM  
**To:** ^WCH Document Control  
**Subject:** FW: USE OF NONREGULATED DETERGENT FOR DECONTAMINATION OF EQUIPMENT

Please provide a chron number. This email documents a regulatory agreement.

Thanks,

Dan Saueressig  
 FR Environmental Project Lead  
 420-6835

**From:** Vanni, Jean (ECY) [<mailto:jeva461@ECY.WA.GOV>]  
**Sent:** Tuesday, November 04, 2008 8:03 AM  
**To:** Saueressig, Daniel G  
**Cc:** Smith-Jackson, Noel; Shea, Jacqueline (ECY); Jones, Mandy E; Price, John  
**Subject:** RE: USE OF NONREGULATED DETERGENT FOR DECONTAMINATION OF EQUIPMENT

Dan, Ecology has reviewed your request to use non-regulated detergent for decontamination of equipment and information provided in Section 3.1.5 of the Remedial Design Report/Remedial Action Work Plan, DOE/RL-96-17, Rev 6, Draft A. Recognizing that other decontamination methods have proved ineffective, Ecology supports a 'wet method' approach and use of a non-regulated detergent for decontamination activities per the Work Plan (DOE/RL-96-17, Rev 6, Draft A). Please have this agreement captured in the 100/300 Area UMM minutes.

Jean

Thanks!

Jean Vanni-Environmental Specialist  
 Washington State Department of Ecology  
 Nuclear Waste Program-Clean Up Section  
 3100 Port of Benton Blvd, Richland  
 Phone 509-372-7930, Fax 372-7971

**From:** Saueressig, Daniel G [<mailto:dgsauere@wch-rcc.com>]  
**Sent:** Monday, November 03, 2008 4:03 PM  
**To:** Vanni, Jean (ECY)  
**Subject:** RE: USE OF NONREGULATED DETERGENT FOR DECONTAMINATION OF EQUIPMENT

Jean, I've attached a couple pages from the draft RDR/RAWP that the text came from. This is the draft Remedial Design Report/Remedial Action Work Plan for the 100 Area (DOE/RL-96-17, Revision 6 Draft) that DOE is very close to sending to Ecology and EPA for review.

Thanks,

Dan Saueressig  
 FR Environmental Project Lead  
 420-6835

<< File: decon language.PDF >>

**From:** Vanni, Jean (ECY) [mailto:jeva461@ECY.WA.GOV]  
**Sent:** Monday, November 03, 2008 3:48 PM  
**To:** Saueressig, Daniel G  
**Cc:** Jones, Mandy E; Smith-Jackson, Noe'l; Smith-Jackson, Noe'l; Price, John  
**Subject:** RE: USE OF NONREGULATED DETERGENT FOR DECONTAMINATION OF EQUIPMENT

Thanks Dan. We've had some discussion of this approach. I'm unfamiliar with the document, if you can send me the page, it'd help make review quicker. Also, regarding the pipeline water you want to use as dust suppressant at H—Send me an email explaining which pipelines, amounts of liquids, sampling, etc involved. Perhaps you could use the approach already approved for 100-D soils. This agreement would then be documented in the UMM minutes along with approval of the use of non-regulated detergents.

Thanks! Jean

Jean Vanni-Environmental Specialist  
 Washington State Department of Ecology  
 Nuclear Waste Program-Clean Up Section  
 3100 Port of Benton Blvd, Richland  
 Phone 509-372-7930, Fax 372-7971

**From:** Saueressig, Daniel G [mailto:dqsauere@wch-rcc.com]  
**Sent:** Monday, November 03, 2008 3:32 PM  
**To:** Vanni, Jean (ECY)  
**Cc:** Post, Thomas C; Buckmaster, Mark A; Landon, Roger J  
**Subject:** USE OF NONREGULATED DETERGENT FOR DECONTAMINATION OF EQUIPMENT

Jean, the text below is verbatim from the draft RDR/RAWP that should be coming your way any day for review. We'd like the ability to use non-regulated detergents to assist with equipment decontamination inside of waste sites. Our intent would be to decontaminate the equipment before loadout of the material so that all affected soil would be disposed at ERDF. Let me know if you concur and we can capture this agreement in the UMM pending approval of the RDR/RAWP revision.

"Decontamination to support excavation activities is provided primarily by the following two methods: (1) wet methods using pressure washers and steam cleaners, and (2) dry methods using wiping and high-efficiency particulate air-filtered vacuum cleaners.

The following are best management practices (BMPs) for the wet cleaning and/or decontamination of heavy equipment and vehicles working directly in contaminated areas, when cleaning and/or decontamination water is not collected.

**General BMP.** This applies to all equipment cleaning/decontamination activities within a waste site.

- Decontamination should be conducted within the waste site to prevent the spread of contaminants.
- The amount of water used to clean equipment should be minimized.
- Raw or potable water should only be used.
- Soaps, detergents, or other cleaning agents **that would regulate as a hazardous waste** should not be added to wash water.

- Pressure washing will normally use cold water (hot water may be used to avoid icing).
- Steam cleaning may be used only after other decontamination methods prove to be ineffective.
- Decontamination practices will be documented in the daily log.
- Personnel responsible for equipment decontamination will be trained to this BMP.

**Ongoing Remediation Site BMP.** This applies to equipment being washed and/or decontaminated within sites that have ongoing remediation.

- Equipment washing/decontamination will be located in areas with ongoing waste removal.
- Spent wash water and associated contamination will be kept within the AOC.
- Pre- and post-washing/decontamination contaminant surveys are not required.
- The project may opt to collect wash water for reuse in the excavation or to be sent for treatment."

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
420-6835

---

**From:** Vanni, Jean (ECY) [<mailto:jeva461@ECY.WA.GOV>]  
**Sent:** Thursday, October 30, 2008 1:14 PM  
**To:** Saueressig, Daniel G  
**Cc:** Price, John; Smith-Jackson, Noe'l; Jones, Mandy E; Shea, Jacqueline (ECY)  
**Subject:** RE: GRAPHITE WASTE AT D

Dan, please send me an email detailing your request to use non-regulated detergent for decon activities in AOC. Then Ecology can reply and it can be captured in the UMM minutes. Thanks, Jean

Thanks!

Jean Vanni-Environmental Specialist  
Washington State Department of Ecology  
Nuclear Waste Program-Clean Up Section  
3100 Port of Benton Blvd, Richland  
Phone 509-372-7930, Fax 372-7971

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**From:** Saueressig, Daniel G [<mailto:dgsauere@wch-rcc.com>]  
**Sent:** Wednesday, October 29, 2008 4:12 PM  
**To:** Vanni, Jean (ECY)  
**Cc:** Buckmaster, Mark A; Landon, Roger J  
**Subject:** GRAPHITE WASTE AT D

Jean, I meant to give you a copy of this paper when you were out at the 100 Areas today. We had an opportunity to share

this with Dave Einan recently since it mostly deals with waste acceptance at ERDF, however, we want to ensure the Ecology is also aware of the issue. I believe we'll hear from Mr. Einan regarding sending this material to ERDF within the next week.

I'll be sure to forward any correspondence we get from EPA related to this material.

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
420-6835

<< File: 100 D Graphite Powder Whitepaper.doc >>

**Attachment 7**

**100 Area D4/ISS Status  
November 13, 2008**

**100/300 Area Combined Unit Manager Meeting**

**Completed Activities**

- 184N above grade / below grade demolition and waste load out
- 184NA below grade demolition and waste load out
- 107N Chemical Annex demolition and waste load out
- 1330N below grade demolition and waste load out
- 1802N below grade demolition and waste load out
- Remove & ship nine fuel casks from 1524N pad to ERDF for macro-encapsulation
- Post removal characterization activities at 184N, 184NA, 1802N, 1330N to include:
  - LARADS/GPERS analysis
  - GPS survey
  - Visual evaluation
- Removal of French Drain at 108N (Chemical Unloading Facility)

**NCES-PAS Subcontractor Activities**

105N/109N –Work continues to remove various refrigerant containing appliances from 105-N. Asbestos abatement continues as well as removal of oils and hydraulic fluids.

**WM Dickson Subcontractor Activities**

WM Dickson will perform hazmat removal in 109N and above grade and below grade demolition of 105N/109N structures and facility support piping. Additionally, they will construct the safe storage enclosure for the 100N reactor facility. Hazmat removal activities are to begin next week.

**Proposed work through 12/31/08**

- 107N – continue hazmat removal, remove and ship to ERDF two cation exchange tanks (IE-1 and IE-2)
- 116N (stack) – above grade demolition waste load out
- 181NE – hazmat removal activities
- 182N scaffold erection and Class I asbestos abatement
- Post removal characterization activities at 13N, 108N, 1525N to include:
  - LARADS/GPERS analysis
  - GPS survey
  - Visual evaluation

**Attachment 8**

**Donnelly, Jack W**

**From:** Donnelly, Jack W  
**Sent:** Wednesday, October 15, 2008 8:23 AM  
**To:** Smith, Chris; 'Boyd.Alicia@epamail.epa.gov'  
**Subject:** RE: extension request

Good morning Chris and Alicia:

If it is acceptable to you how about we add this email concurrence and the extension request in the November UMM? The UMM today is only an executive session.

Please let me know.

Alicia: I plan to bring down the September UMM minutes for the 3:00 meeting for agency signatures. If Larry, Rod, or Laura will not be present can you also sign the 100 Area portion of the September minutes?

Thanks.

Respectfully, Jack Donnelly

-----Original Message-----

From: Smith, Douglas C (Chris) [mailto:Douglas\_C\_Chris\_Smith@RL.gov]  
Sent: Wednesday, October 15, 2008 7:13 AM  
To: Donnelly, Jack W; Morrison, Ronald D  
Subject: FW: extension request

-----Original Message-----

From: Boyd.Alicia@epamail.epa.gov [mailto:Boyd.Alicia@epamail.epa.gov]  
Sent: Tuesday, October 14, 2008 1:33 PM  
To: Smith, Douglas C (Chris)  
Subject: Re: extension request

Chris

I concur with this request. If I need to sign anything regarding this extension request, please bring it to the UMM tomorrow. See you there.

Alicia

Alicia L. Boyd  
EPA Hanford Project Office  
309 Bradley Blvd Suite 115  
Richland, WA 99352  
(509) 376-4919

|   |   |         |
|---|---|---------|
| "Smith, Douglas<br>C (Chris)"<br><Douglas_C_Chris<br>_Smith@RL.gov> | Alicia Boyd/R10/USEPA/US@EPA  | To      |
| 10/14/2008 11:16<br>AM  | "Donnelly, Jack W"<br><jwdonnel@wch-rcc.com>, "Smith,<br>Douglas C (Chris)"<br><Douglas_C_Chris_Smith@rl.gov> | cc      |
|   | extension request   | Subject |

Please see attached file. Please notify via email if you concur.

Thanks

Chris Smith  
Deputy Federal Project Director  
Richland Operations Office  
(509)-372-1544 (w)  
(509)-308-1291 (c)  
(See attached file: 618-1011commentextensionrequestOct82008.doc)

WRITTEN REQUEST FOR ADDITIONAL TIME FOR RL  
TO RESPOND TO EPA COMMENTS ON  
DOE/RL-2008-27, Draft A, *Sampling and Analysis Plan for 618-10 and 618-11  
Nonintrusive Sampling*

DOE-RL received EPA's comments on the subject document on August 15, 2008. DOE-RL was granted a 30 day extension (to October 15, 2008) on September 11, 2008, to continue discussions on several comments and prepare final responses. DOE-RL is hereby requesting in writing an additional 30-day extension to respond to EPA's comments. DOE-RL shall submit comments to EPA no later than November 15, 2008.

DOE-RL and EPA Project Leads have met to discuss and clarify all submitted comments. DOE-RL is proposing schedule modifications in order to focus on initiation of 618-10 non-intrusive characterization at the earliest possible date. Due to the upcoming re-fueling outage planning/execution at Energy Northwest's Columbia Generating Station, DOE-RL feels it is more efficient to delay the non-intrusive characterization at 618-11 until after the re-fueling outage is complete and appropriate support from Energy Northwest can be secured. DOE intends to use this additional time to evaluate potential schedule impacts while preparing final responses.

With EPA concurrence, agreement to this request will be sought at the October 15, 2008 Unit Managers Meeting.

**Attachment 9**

300 Area D4 Status  
November 13, 2008  
100/300 Area Combined Unit Manager Meeting

**Ongoing Hazardous Material Removal**

- 324 – in cell movements of materials, start demo of office wing, shop and 324C
- 327 – finishing PSR to start duct removal
- 308 – glovebox removal
- 309 – ACM removal in support areas, characterization and surveys inside containment dome

**Ready for Demolition:**

- 337
- 337B

**Demolition Activities:**

- 321 – Loadout continues\*
- 323 – Loadout continues\*
- 3718A, B, C, E, G and N, 3727, 3728, 3721 – Loadout completed

**60-Day Project Look Ahead**

- Begin hazardous material removal at 338 and 336
- Start slab removals for 3718 buildings not on WIDS
- Glovebox shipments to ERDF and Permafix

\*The finish of the 321/323 work will be after repairs are completed to the 365 excavator and Genesis processing head – expected week of 11/24

**Attachment 10**

Mission Completion  
Sample Design and Cleanup Verification  
for the November 2008 UMM

| AREA                     | DOE-RL/REGULATOR DELIVERABLE  | START          | FINISH     |
|--------------------------|---|----------------|------------|
| <b>100-D</b>             |   |                |            |
|                          | RL/Regulator Review Draft A Closure Document for 126-DR-1                       | 11/17/2008     | 12/31/2008 |
|                          | RL/Regulator Review Draft A Work Instruction for 116-D-10                       | 11/24/2008     | 1/7/2009   |
|                          | RL/Regulator Review Draft A Work Instruction for 116-DR-8                       | 12/1/2008      | 1/14/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for 100-D-29                       | 12/2/2008      | 1/15/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for UPR-100-D-5                    | 12/2/2008      | 1/15/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for 118-D-5                        | 12/11/2008     | 1/24/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for 118-DR-1                       | 12/11/2008     | 1/24/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for 116-D-8                        | 12/16/2008     | 1/29/2009  |
|                          | RL/Regulator Sign Rev. 0 Closure Document for 126-DR-1                          | 1/5/2009       | 1/22/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for 100-D-31:1/2                   | 1/14/2009      | 2/10/2009  |
|                          | RL/Regulator Sign Rev. 0 Work Instruction for 118-D-5                           | 1/19/2009      | 1/26/2009  |
|                          | RL/Regulator Sign Rev. 0 Work Instruction for UPR-100-D-5                       | 1/19/2009      | 1/29/2009  |
|                          | RL/Regulator Sign Rev. 0 Work Instruction for 100-D-29                          | 1/19/2009      | 1/29/2009  |
|                          | RL/Regulator Review Draft A Closure Document for 120-D-2                        | 1/19/2009      | 3/4/2009   |
|                          | RL/Regulator Sign Rev. 0 Work Instruction for 118-DR-1                          | 1/26/2009      | 2/2/2009   |
|                          | RL/Regulator Sign Rev. 0 Work Instruction for 100-D-31:1/2                      | 2/3/2009       | 2/10/2009  |
|                          | RL/Regulator Review Draft A Closure Document for 100-D-45                       | 2/5/2009       | 3/24/2009  |
|                          | RL/Regulator Review Draft A Closure Document for 100-D-43                       | 2/5/2009       | 3/24/2009  |
| <b>100-F</b>             |   |                |            |
|                          | RL/Regulator Sign and Issue Rev. 0 Closure Document 128-F-2                     | 12/1/2008      | 12/8/2008  |
|                          | RL Review and Approve 100-F Remediation Subcontract                             | 2/3/2009       | 2/22/2009  |
| <b>100-H</b>             |   |                |            |
|                          | RL/Regulator Review Draft A Closure Document for 100-H-28:1                     | 11/14/2008     | 12/28/2008 |
|                          | RL/Regulator Sign Rev. 0 Closure Document for 100-H-28:1                        | 11/14/2008     | 12/28/2008 |
|                          | RL/Regulator Review Draft A Work Instruction for 118-H-5                        | 1/8/2009       | 2/4/2009   |
|                          | RL/Regulator Review Draft A Work Instruction for 118-H-4                        | 1/14/2009      | 2/10/2009  |
|                          | RL/Regulator Review Draft A Closure Document for 128-H-2                        | 1/21/2009      | 3/9/2009   |
|                          | RL/Regulator Review Draft A Closure Document for 128-H-3                        | 1/21/2009      | 3/9/2009   |
|                          | RL/Regulator Review Draft A Work Instruction for 600-152                        | 1/29/2009      | 2/26/2009  |
|                          | RL/Regulator Review Draft A Closure Document for 100-H-28:6                     | 2/3/2009       | 3/19/2009  |
| <b>100-IU-2/100-IU-6</b> |   |                |            |
|                          | RL/Regulator Review Draft A Closure Document for 600-149:2                      | 12/4/2008      | 1/17/2009  |
|                          | RL/Regulator Sign Rev. 0 Closure Document for 600-149                           | 1/19/2009      | 2/5/2009   |
| <b>100-K</b>             |   |                |            |
|                          | RL/Regulator Review Draft A Work Instruction for 100-K-78                       | 1/13/2009      | 2/26/2009  |
|                          | RL/Regulator Review Draft A Work Instruction for 128-K-2                        | 1/20/2009      | 3/5/2009   |
|                          | RL/Regulator Review Draft A Work Instruction for 600-29                         | 1/20/2009      | 3/5/2009   |
|                          | RL/Regulator Review Draft A Work Instruction for 126-K-1                        | 1/26/2009      | 3/11/2009  |
| <b>100-N</b>             |   |                |            |
|                          | RL/Regulator Sign and Issue Rev 1 Closeout Document 116-N-1                     | 8/19/08 (A)    | 1/27/2009  |
| <b>100 Area</b>          |   |                |            |
|                          | RL/Regulator Review of 100 Area Remedial Design Report                          | 10/22/2008 (A) | 12/10/2008 |
|                          | RL/Regulator Review of 100 Area Sampling Analysis Plan                          | 10/22/2008 (A) | 12/10/2008 |
|                          | RL/Regulator Review of Draft 100 Area Explanation of Significant Difference     | 12/1/2008      | 1/21/2009  |
|                          | RL Issue 100 Area Draft Explanation of Significant Difference for Public Review | 2/2/2009       | 3/25/2009  |

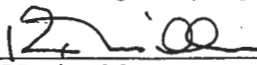
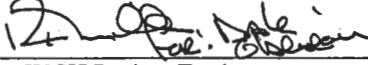

Mission Completion  
 Sample Design and Cleanup Verification  
 for the November 2008 UMM

| AREA            | DOE-RL/REGULATOR DELIVERABLE                                     | START         | FINISH     |
|-----------------|--|---------------|------------|
| <b>300 Area</b> |  |               |            |
|                 | RL Review 618-10/11 Phase 2 Characterization Plan                | 2/26/2008 (A) | 11/20/2008 |
|                 | RL/Regulator Review Draft A Work Instruction for 300-32          | 7/15/2008 (A) | 11/6/2008  |
|                 | Regulator Sign Rev. 0 Work Instruction for 300-32                | 11/10/2008    | 11/20/2008 |
|                 | RL Review Draft B 300 Area Explanation of Significant Difference | 12/10/2008    | 2/2/2009   |
|                 | RL Review 300 Area Remedial Design Report                        | 12/10/2008    | 2/2/2009   |
|                 | RL/Regulator Review of 300 Area Sampling Analysis Plan           | 12/10/2008    | 2/2/2009   |
|                 | RL/Regulator Review Draft A Closure Document for 618-7           | 12/16/2008    | 1/16/2009  |
|                 | RL/Regulator Sign Rev. 0 Closure Document for 618-7              | 1/19/2009     | 1/22/2009  |
|                 | RL/Regulator Review Draft A Work Instruction for 618-13          | 1/22/2009     | 3/10/2009  |


## **Attachment 11**

| <b>Waste Site:</b><br><b>600-149:2 Berm</b><br><b>Behind the Pistol/Rifle</b><br><b>Range</b>  | <b>BACKFILL CONCURRENCE CHECKLIST</b><br><b>(Concurrence to Proceed with Waste Site Backfill Operations)</b>   |  | <b>WIDS No:</b><br><b>600-149</b> |             |
|--|--|--|-----------------------------------|-------------|
| This checklist is a summary of cleanup verification results for the 600-149:2 Berm Behind the Pistol/Rifle Range. The checklist is intended as an agreement allowing the RCCC subcontractor to backfill the excavation prior to the issuance of the final cleanup verification package. The lead regulatory agency has been provided copies of detailed calculations. The results are summarized below |  |  |                                   |             |
| <b>Regulatory Requirement</b>  | <b>Remedial Action Goals (RAG)</b>   | <b>Results</b>   | <b>RAG Attained</b>               | <b>Ref.</b> |
| Direct Exposure – Radionuclides  | 1. Attain 15 mrem/yr dose rate above background over 1000 years.   | 1. There are no radionuclide COPCs.  | Yes                               | NA          |
| Direct Exposure – Nonradionuclides   | 1. Attain individual COPC RAGs.  | 1. All individual COPC concentrations are below the direct exposure RAGs.  | Yes                               | A,E         |
| Meet Nonradionuclide Risk Requirements   | 1. Hazard quotient of less than 1 for noncarcinogens.  | 1. All hazard quotients for individual nonradionuclide COPCs are less than 1.  | Yes                               | B           |
|  | 2. Cumulative hazard quotient of less than 1 for noncarcinogens.   | 2. The cumulative hazard quotient ( $1.5 \times 10^{-2}$ ) is less than 1.   |                                   | B           |
|  | 3. Excess cancer risk of $<1 \times 10^{-6}$ for individual carcinogens.   | 3. No carcinogenic COPCs were detected above background levels.  |                                   | B           |
|  | 4. Attain a total excess cancer risk of $<1 \times 10^{-5}$ for carcinogens.   | 4. No carcinogenic COPCs were detected above background levels.  |                                   | B           |
| Groundwater/River Protection – Radionuclides   | 1. Attain single COC groundwater & river RAGs.   | 1,2,3,4. There are no radionuclide COPCs.  | Yes                               | NA          |
|  | 2. Attain National Primary Drinking Water Regulations 4-mrem/yr (beta/gamma) dose standard to target receptor/organ.   |  |                                   |             |
|  | 3. Meet drinking water standards for alpha emitters: the more stringent of 15 pCi/L MCL or 1/25 <sup>th</sup> of the derived concentration guide for DOE Order 5400.5. |  |                                   |             |
|  | 4. Meet total uranium standard of 21.2 pCi/L.  |  |                                   |             |
| Groundwater/River Protection – Nonradionuclides  | 1. Attain individual nonradionuclide groundwater and river cleanup requirements.   | 1. Residual concentrations of copper, lead and selenium exceeded soil RAGs for the protection of groundwater and/or the Columbia River. However, it is predicted that these constituents will not migrate to groundwater (and thus the Columbia River) at concentrations exceeding groundwater or river criteria within 1,000 years. Therefore, residual concentrations achieve the remedial action objectives for groundwater and river protection. | Yes                               | A,E         |
| Other Supporting Information   | 1. Pre-verification sampling X-ray fluorescence (XRF) measurements for lead.<br>2. Lead bullet density counts at focused sampling locations                            |  |                                   | C, D        |

All citations above and references on attached sheet are on record with Washington Closure Hanford, Inc., Document Control.  
Above noted regulatory requirements have been attained.

|   |         |   |         |   |          |
|---|---------|---|---------|---|----------|
|  | 11/4/08 |  | 11/4/08 |  | 11/15/08 |
| WCH Project Manager   | Date    | WCH Project Engineer  | Date    | DOE Project Manager   | Date     |

Given the attached information, DOE can proceed with backfill of the site with minimal risk. Final approval that the site has met RAOs and RAGs will occur with the submittal, review, and approval of the Cleanup Verification Package by the lead regulatory agency.

|   |             |                         |      |
|---|-------------|-------------------------|------|
|  | Nov 5, 2008 | N/A                     | N/A  |
| EPA Project Manager   | Date        | Ecology Project Manager | Date |

**Attachment 12**

**Environmental Protection Mission Completion Project**  
November 13, 2008

**Orphan Sites Evaluations**

- Received Ecology signature for the majority of 100-D and 100-H orphan site MP-14 forms. The 100-IU-2/6 MP-14 forms will be submitted to EPA for regulatory signature in November. The final reports will be issued once forms have all required signatures for a respective area.
- Continuing N-Area orphan site evaluation. A briefing of the findings will be scheduled with the Ecology in December.
- Awaiting RL and regulatory comments on the 100-K Area summary report.
- Initiated orphan site evaluations in October for 300-FF-2 and Inter-Areas Segment 1.

**River Corridor Baseline Risk Assessment**

- Volume 2 (human health) is anticipated to be distributed for informal regulator review November 24.
- Comments from informal regulator review of Volume 1 (ecological) are anticipated by November 20.

**Remedial Investigation of Hanford Releases to Columbia River**

- Wasteway/irrigation return sampling campaign completed in October.
- Surface water sampling campaign completed November 13.
- Ecological habitat field surveys completed November 13.
- Groundwater upwelling surveys (work plan Phase IIa) and sampling campaign for shallow deep sediments to begin in early December. Meeting with Tri-Parties for sediment sampling locations and logistics scheduled for November 19.
- Subcontract for fish collection to be awarded in December.
- RI work plan field change/clarification sheets attached.

**Document Review Look-Ahead**

| <b>Document</b>                              | <b>Regulator Review Start</b> | <b>Duration</b>                     |
|--|-------------------------------|-------------------------------------|
| RCBRA Draft B – Volume 1 (Eco)               | September 15, 2008            | To be complete<br>November 20, 2008 |
| RCBRA Draft B – Volume 2<br>(Human Health)   | November 25, 2008             | 45 days                             |
| 100-K Area Orphan Sites<br>Evaluation Report | November 10, 2008             | 45 days                             |
| 100-N Area Orphan Sites<br>Evaluation Report | December 2008                 | 45 days                             |

**Attachment 13**

# Input for November 13, 2008 UMM Changes for the Remedial Investigation of Hanford Releases to the Columbia River – Surface Water Sampling

## Relocation of Random Samples

At the time of surface water sampling, it was discovered that some of the planned randomly determined locations could not be accessed during low river stage. These stations were relocated to the nearest accessible surface water within each data gap area, as follows:

| Station ID           | Planned Location <sup>a</sup> | Location Sampled <sup>a</sup>         | Offset Distance    |
|----------------------|-------------------------------|---------------------------------------|--------------------|
| PRD-3SW <sup>b</sup> | N 144014.0<br>E 551105.8      | N 143839.8<br>E 551422.4              | 361 m              |
| IS11-1SW             | N 132769.2<br>E 593718.0      | N 132779.4<br>E 593750.0              | 34 m               |
| WI-1SW               | N 122727.7<br>E 594601.1      | N 121740.2 <sup>c</sup><br>E 594643.7 | 988 m <sup>c</sup> |
| RG-3SW               | N 133196.5<br>E 594212.4      | N 133164.7<br>E 594079.4              | 137 m              |
| CI-1SW               | N 98856.2<br>E 607812.2       | N 98873.9<br>E 607807.0               | 19 m               |
| TR-1SW               | N 96197.4<br>E 612495.1       | N 96364.7<br>E 611778.5               | 736 m              |
| IS8-3SW              | N 146375.1<br>E 582779.2      | N 146276.5 <sup>c</sup><br>E 582853.3 | 123 m <sup>c</sup> |

<sup>a</sup> Washington State Plane.

<sup>b</sup> Discussed in the field on 10/29/08 with Laura Buelow and Jamie Zeisloft.

<sup>c</sup> Planned alternate locations—samples have not yet been collected at WI-1SW or IS8-3SW, and actual collection locations will vary slightly from planned coordinates.

## Clarification of Radionuclide Analyses to be Performed

Per previous discussions with regard to interpretation of Table 4-6 of the work plan and Table 3-1 of the SAP, a decision was reached on what radiological analyses would be performed on surface water samples:

| Radiochemical Analyses for Surface Water Samples (2 Pages) |  |
|--|--|
| Analysis   | Reported Analytes  |
| Gamma spectroscopy   | Am-241, Sb-125, Be-7, Cs-134, Cs-137, Co-60, Eu-152, Eu-154, Eu-155, K-40, Ra-226, Ra-228, Ru-106, Th-228 <sup>a</sup> , Th-232 <sup>a</sup> , U-235 <sup>a</sup> , U-238 <sup>a</sup> |
| Isotopic uranium   | U-233/234, U-235, U-238  |
| Isotopic thorium   | Th-228, Th-230, Th-232   |
| Isotopic plutonium   | Pu-238, Pu-239/240   |
| Total radiostrontium                                       | Sr-90  |
| LSC – Tc-99  | Tc-99  |
| LSC – C-14   | C-14   |
| LSC – H-3  | H-3  |

<sup>a</sup> Thorium and uranium isotopes may be reported by gamma spectroscopy, but will also be analyzed by isotope-specific methods.

LSC = liquid scintillation counting

### Analyses that will not be performed:

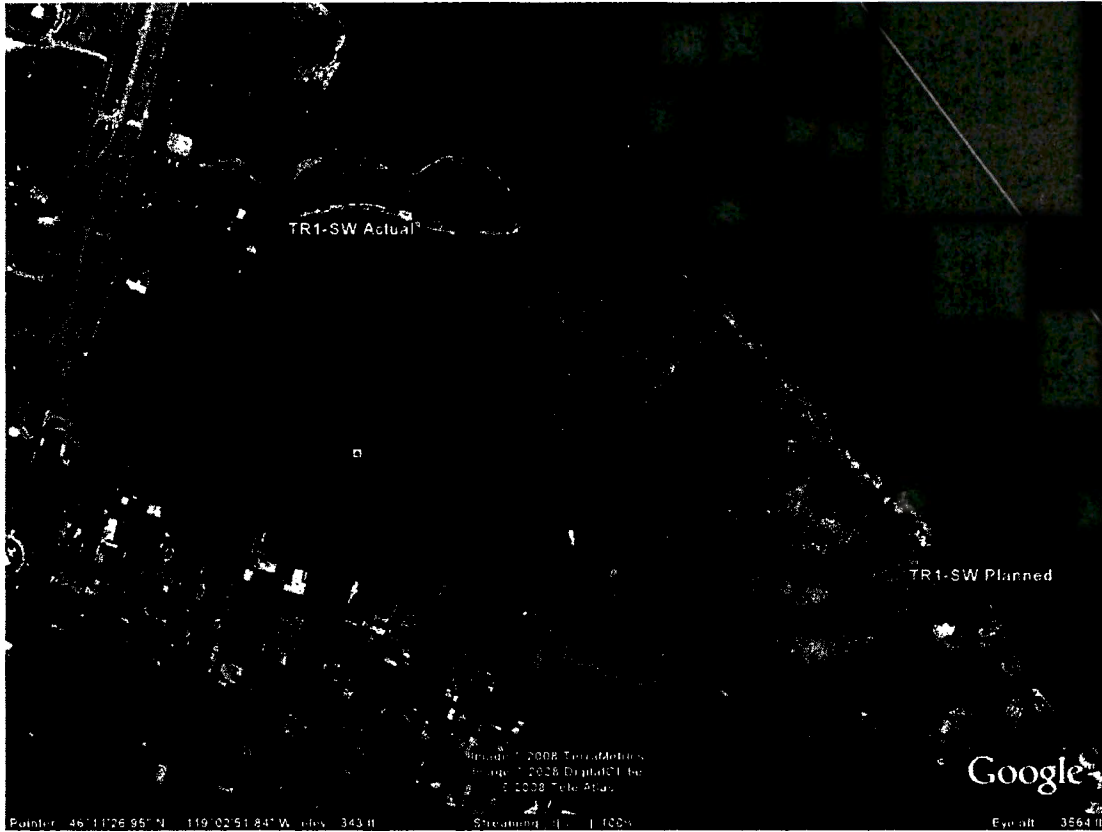
Alpha energy analyses for Am-241, Np-237, and Pu-241 Isotopic Cm (Cm-244)

Low energy photon spectroscopy (I-129)

Liquid scintillation counting – Ni-63

Isotopic radium (Ra-226, Ra-228)

**Examples of Proposed Change or Deviation in Sample Locations  
Two Rivers Park, Sample TR-1SW**



**Ringold Recreational, Sample RG-3SW**



### **Removal of Planned Samples at Saddle Mountain Wasteway**

The Saddle Mountain Wasteway has been determined to be an irrigation return for Bureau of Land Management ponds that is used only at periods of exceptionally high water. The return was found to be dry on 10/17/08 with no indication of recent use at the time of field sampling, and no surface water sample was collected. It is proposed that the spring surface water sample also be deleted from the SAP.

**Saddle Mountain Wasteway, View away from River (North)**



**Saddle Mountain Wasteway, View towards River (South)**



## Clarifications of Radionuclide Analyses for Sediment Sampling

Pursuant to clarifications for radiochemical analyses for surface water samples, the Tri-Parties have agreed to clarification of Table 4-5 of the work plan and Table 3-2 of the SAP for radiochemical analysis of sediments as follows:

| <b>Radiochemical Analyses for Sediment Samples<sup>a</sup></b> |  |
|--|--|
| <b>Analysis</b>  | <b>Reported Analytes</b>   |
| Gamma spectroscopy   | Am-241, Sb-125, Be-7, Cs-134, Cs-137, Co-60, Eu-152, Eu-154, Eu-155, K-40, Ra-226, Ra-228, Ru-106, Th-228 <sup>b</sup> , Th-232 <sup>b</sup> , U-235 <sup>b</sup> , U-238 <sup>b</sup> |
| Isotopic uranium   | U-233/234, U-235, U-238  |
| Isotopic thorium   | Th-228, Th-230, Th-232   |
| Isotopic plutonium   | Pu-238, Pu-239/240   |
| Total radiostrontium   | Sr-90  |
| LSC – Tc-99  | Tc-99  |
| LSC – C-14   | C-14   |

<sup>a</sup> Applies only to those sediment samples for which radiochemical analysis is specified in Tables 2-2 through 2-6 of the SAP.

<sup>b</sup> Thorium and uranium isotopes may be reported by gamma spectroscopy, but will also be analyzed by isotope-specific methods.

### Analyses that will not be performed:

Alpha energy analyses for Am-241, Np-237, and Pu-241

Isotopic Cm (Cm-244)

Low energy photon spectroscopy (I-129)

Liquid scintillation counting – H-3

Liquid scintillation counting – Ni-63

Isotopic radium (Ra-226, Ra-228)

### Other General Administrative/Clerical Changes in Appendix A SAP

Table 2-3, Page AF&T-28, Samples WBT-1SW to WBT-2SW at the WB-10 wasteway are a focused sample design, not random/stratified.

Table 2-4, Page AF&T-34, Samples RG-1S to RG-10S at the Ringold Recreational location should have been designated as shoreline sediment samples, not soil samples. Propose to change sample type and temporary sample ID to shoreline sediment and RG-1SSD to RG-10SSD, respectively.

Table 2-4, Page AF&T-39, Sample LG-1SSD; the temporary sample ID for these five samples to be collected by the MIS sample design should be LG-1SSD to LG-5SSD.

Table 2-5, Page AF&T-43, Samples CI-1SD to CI-3SD at Clover Island should have been designated as collected via ponar, not grab collection method.

Table 2-5, Page AF&T-43, Sample TR-1SSD; the temporary sample ID for these five samples to be collected by the MIS sample design should be TR-1SSD to TR-5SSD. The number of samples and corresponding number of analyses should be changed to 5. The text of the rationale should read as "MIS samples will be collected from shoreline area of Two Rivers Part. These samples will be collected as 5 replicates". This will then be consistent with the text of the other MIS sample to be collected at Leslie Groves Park.

Table 2-5, Page AF&T-44, Sample CP-1SW at Columbia Park is noted to be collected “(Spring and Fall)”. This is a typographical error which should be shown associated with sample SR-1SW located two rows above. Sample numbers and rationale description support this change.

#### SAP Section 3.8 Quality Control during the Sampling Process

Section 3.8.2, pg A3-20, last paragraph – change the first sentence to read "Equipment rinsates are analyzed for the same analytes, excluding radionuclides, as samples collected using that equipment". This is consistent with practices established with previous RCBRA sampling.

Section 3.8.4, pg A3-20, change the last sentence from “Field split samples may be collected at a frequency of 5% of the samples collected per matrix” to read "Field split samples will not be collected at a set frequency and may be collected at the direction of the project as the need is identified". This requirement may be satisfied by providing samples to other agencies such as EPA, Ecology, or the DOH.

Section 3.8.5, pg A3-21, change the last sentence from “Field blanks will be collected at a frequency of 5% of the samples collected per matrix” to "Field blanks will not be collected at a set frequency and may be collected at the direction of the project as the need is identified". These samples are collected at the site at the discretion of the samplers to address changing field conditions (e.g. for VOAs).