



Department of Energy
Richland Operations Office
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15-AMRP-0048

DEC 24 2014

Mr. D. A. Faulk, Program Manager
Office of Environmental Cleanup
Hanford Project Office
U.S. Environmental Protection Agency
309 Bradley Boulevard, Suite 115
Richland, Washington 99352

Dear Mr. Faulk:

TRANSMITTAL OF APPROVED WASTE SITE RECLASSIFICATION FORM AND
SUPPORTING DOCUMENTATION FOR THE 300-288:1, PILES OF GARNET SAND/SOIL
MIXTURE WITHIN GRAVEL PIT 6 SUBSITE, REVISION 0

Attached for your use is the approved Waste Site Reclassification Form No. 2014-105
and supporting documentation for the, "300-288:1, Piles of Garnet Sand/Soil Mixture Within
Gravel Pit 6 Subsite," Rev. 0. If you have questions, please contact me or your staff may contact
Rudy Guercia, of my staff, at (509) 376-5494.

Sincerely,

Mark S. French, Director
River Corridor Division

AMRP:RFG

Attachment

cc w/attach:

B. Simes, EPA-HQ

Administrative Record, H6-08 (300-FF-2 OU)

cc w/o attach:

R. D. Cantwell, WCH

S. L. Feaster, WCH

D. L. Plung, WCH

J. P. Shearer, CHPRC

C. P. Strand, WCH

300-FF-2

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WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2

Control No.: 2014-105

Waste Site Code(s)/Subsite Code(s): 300-288:1, Piles of Garnet Sand/Soil Mixture Within Gravel Pit 6

Reclassification Category: Interim Final

Reclassification Status: Closed Out No Action Rejected

RCRA Postclosure Consolidated None

Approvals Needed: DOE Ecology EPA

Description of current waste site condition:

The 300-288:1, Piles of Garnet Sand/Soil Mixture Within Gravel Pit 6 subsite, part of the 300-288, Disposal Sites Within Gravel Pit 6 waste site, was identified as a waste site requiring remediation in the *Hanford Site 300 Area, Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1, Hanford Site, Benton County, Washington* (300 Area Final ROD), U.S. Environmental Protection Agency, Region 10, Seattle, Washington (EPA 2013). The 300-288 waste site was previously included as a "plug-in" site in the Tri-Party Agreement Administrative Record *Fact Sheet: 300 Area "Plug-In" Waste Sites for Fiscal Year 2011*, U.S. Department of Energy, Richland Operations Office, Richland, Washington (DOE-RL 2011), in accordance with the *Interim Action Record of Decision for the 300-FF-2 Operable Unit, Hanford Site, Benton County, Washington* (300-FF-2 ROD), U.S. Environmental Protection Agency, Region 10, Seattle, Washington (EPA 2001), and the *Explanation of Significant Differences for the 300-FF-2 Operable Unit Interim Remedial Action Record of Decision*, U.S. Environmental Protection Agency, Region 10, Seattle, Washington (EPA 2009).

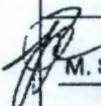
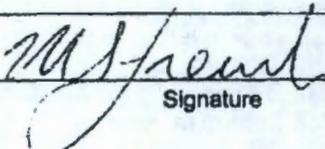
The 300-288:1 subsite is located west of the 300 Area on the west side of Highway Route 4S and within the rejected 600-249 (gravel pit 6) waste site. The 300-288:1 subsite consists of two piles of garnet sand mixed with soil, each estimated to be 5% garnet sand and 95% soil.

The 300-288:1 subsite was recommended for remove, treat, and dispose (DOE-RL 2011); however, no characterization samples were collected at that time. A subsequent in-process composite sample collected of garnet sand and soil, and analyzed for metals, including mercury, indicates that contamination above cleanup levels (CULs) does not exist at the site; therefore, no action is required.

Basis for reclassification:

The in-process sample results support a reclassification of this site to Final No Action. The garnet sand left in place at the 300-288:1 subsite does not pose a risk to human health or the environment.

Additional information is provided in the *Supporting Information for Reclassification of the 300-288:1, Piles of Garnet Sand/Soil Mixture Within Gravel Pit 6 Subsite* (attached).

WASTE SITE RECLASSIFICATION FORM		
Operable Unit: 300-FF-2	Control No.: 2014-105	
Waste Site Code(s)/Subsite Code(s): 300-288:1, Piles of Garnet Sand/Soil Mixture Within Gravel Pit 6		
<u>Regulator comments:</u>		
<u>Waste Site Controls:</u>		
Engineered Controls: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Institutional Controls: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	O&M Requirements: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:		
 M. S. French DOE Federal Project Director (printed)	 Signature	11/30/14 Date
N/A Ecology Project Manager (printed)	Signature	Date
B. Simes EPA Project Manager (printed)	 Signature	12/15/14 Date

**SUPPORTING INFORMATION FOR RECLASSIFICATION OF THE
300-288:1, PILES OF GARNET SAND/SOIL MIXTURE WITHIN
GRAVEL PIT 6 SUBSITE**

Attachment to Waste Site Reclassification Form 2014-105

December 2014

GENERAL SITE INFORMATION AND BACKGROUND

The 300-288:1, Piles of Garnet Sand/Soil Mixture Within Gravel Pit 6 subsite, part of the 300-288, Disposal Sites Within Gravel Pit 6 waste site, was identified as a waste site requiring remediation in the *Hanford Site 300 Area, Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1, Hanford Site, Benton County, Washington* (300 Area Final ROD) (EPA 2013). The 300-288 waste site was previously included as a "plug-in" site in the Tri-Party Agreement Administrative Record *Fact Sheet: 300 Area "Plug-In" Waste Sites for Fiscal Year 2011* (DOE-RL 2011) in accordance with the *Interim Action Record of Decision for the 300-FF-2 Operable Unit, Hanford Site, Benton County, Washington* (300-FF-2 ROD) (EPA 2001) and the *Explanation of Significant Differences for the 300-FF-2 Operable Unit Interim Remedial Action Record of Decision* (EPA 2009).

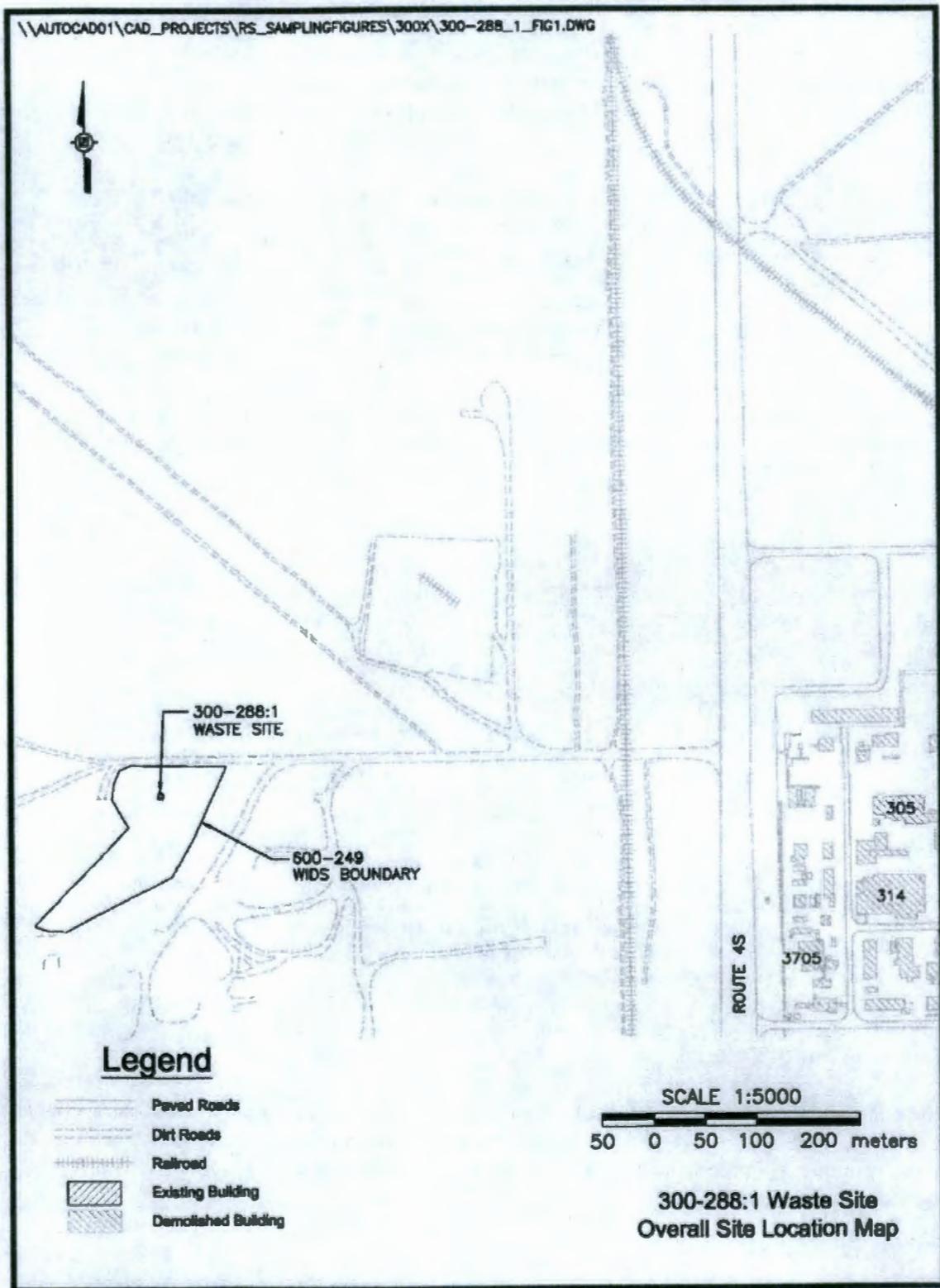
The 300-288:1 subsite consists of two piles of garnet sand (Figure 1) within a 5-m (16.4-ft)-diameter area. The total volume is approximately 15 cubic meters (20 cubic yards), and each pile is estimated to be 5% garnet sand and 95% soil. Garnet sand was commonly used in grit-blasting operations to clean rust, paint, or contamination from the surface of metal components. The garnet sand material is not a hazardous substance, but there is potential for contamination from the surface material that was removed by grit blasting.

The 300-288:1 subsite is located within the "Rejected" 600-249, Debris Within Gravel Pit 6 waste site boundary. Gravel Pit 6 is located west of the 300 Area, on the west side of Highway Route 4S (Figure 2).

Figure 1. Photograph of the 300-288:1 Garnet Sand/Soil Piles.



Figure 2. The 300-288:1 Subsite Location Map.



SAMPLING ACTIVITIES

An in-process composite sample (J1TWJ3) consisting of 30 aliquots of garnet sand material was collected on June 24, 2014. The sample was collected to support a determination that residual contaminant concentrations at this site meet the cleanup levels specified in the 300 Area Final ROD (EPA 2013). A summary of the composite sample collected is provided in Table 1.

Table 1. In-Process Sample Summary for the 300-188:2 Subsite.

Sample Location	Sample Type	HEIS Number	Sample Date	Washington State Plane Coordinates (m)	Sample Analysis
300-288:1	Composite	J1TWJ3	6/24/2014	N 116216.5 E 593026.9	ICP metals ^a , mercury

Source: Field logbook EL-1663-06 (WCH 2014).

^a Analysis for the expanded list of ICP metals included aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, lithium, magnesium, manganese, molybdenum, nickel, potassium, selenium, silicon, silver, sodium, tin, uranium, vanadium, zinc, and zirconium in the analytical results package.

HEIS = Hanford Environmental Information System

ICP = inductively coupled plasma

The composite sample was submitted for full protocol laboratory analysis and was analyzed using U.S. Environmental Protection Agency (EPA)-approved analytical methods as shown in Table 2.

Table 2. 300-288:1 Subsite Laboratory Analytical Methods.

Analytical Method	Contaminants of Concern
ICP metals ^a – EPA Method 6010	Metals
Mercury – EPA Method 7471	Mercury

^a Analysis was performed for the expanded list of ICP metals to include aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium (total), cobalt, copper, iron, lead, lithium, magnesium, manganese, molybdenum, nickel, potassium, selenium, silicon, silver, sodium, tin, uranium, vanadium, zinc, and zirconium in the analytical results package.

EPA = U.S. Environmental Protection Agency

ICP = inductively coupled plasma

Contaminants of Concern

The contaminants of concern (COCs) were determined based on the likely use of the garnet sand material. Because garnet sand was commonly used in grit-blasting operations to clean rust and paint from metal components, the COCs were identified as inductively coupled plasma (ICP) metals and mercury.

Sample Results

An in-process composite sample collected of garnet sand and analyzed for metals, including mercury, indicates that contamination above cleanup levels (CULs) does not exist at the site; therefore, no action is required. The laboratory-reported sample results for all constituents are stored in a project-specific database prior to archival in the Hanford Environmental Information System and are included in Appendix A.

SUMMARY FOR FINAL NO ACTION DETERMINATION

The in-process sampling results support a reclassification of the 300-288:1 subsite to Final No Action.

REFERENCES

- DOE-RL, 2011, *Fact Sheet: 300 Area "Plug-In" Waste Sites for Fiscal Year 2011*, AR/PIR Accession Number 1109011799, August 2011, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- EPA, 2001, *Interim Action Record of Decision for the 300-FF-2 Operable Unit, Hanford Site, Benton County, Washington*, U.S. Environmental Protection Agency, Region 10, Seattle, Washington.
- EPA, 2009, *Explanation of Significant Differences for the 300-FF-2 Operable Unit Interim Remedial Action Record of Decision*, U.S. Environmental Protection Agency, Region 10, Seattle, Washington.
- EPA, 2013, *Hanford Site 300 Area, Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1, Hanford Site, Benton County, Washington*, November 2013, U.S. Environmental Protection Agency, Region 10, Seattle, Washington.
- WAC 173-340, "Model Toxics Control Act – Cleanup," *Washington Administrative Code*, as amended.
- WCH, 2014, *D4 Waste Site Miscellaneous Sampling*, Logbook EL-1663-06, pp. 12-14, Washington Closure Hanford, Washington.

APPENDIX A
IN-PROCESS SAMPLE RESULTS

300-288:1 Metals Data

Site Code	HEIS Sample	Sample Date	Northing	Easting	Aluminum			Antimony			Arsenic			Barium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	1440	N	6.39	0.823	B	0.31	0.47	U	0.47	9.53		0.094

Site Code	HEIS Sample	Sample Date	Northing	Easting	Beryllium			Boron			Cadmium			Calcium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	0.261	B	0.094	1.2	B	0.94	0.159	B	0.094	826	N	7.52

Site Code	HEIS Sample	Sample Date	Northing	Easting	Chromium			Cobalt			Copper			Iron		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	4.43		0.141	1.94		0.141	3.51		0.282	5190		7.52

Site Code	HEIS Sample	Sample Date	Northing	Easting	Lead			Lithium			Magnesium			Manganese		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	4.37		0.31	1.02	BD	0.392	626	N	7.99	80.9	N	0.188

Site Code	HEIS Sample	Sample Date	Northing	Easting	Mercury			Molybdenum			Nickel			Potassium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	0.00402	U	0.00402	0.202	B	0.188	1.84		0.141	176		6.01

Site Code	HEIS Sample	Sample Date	Northing	Easting	Selenium			Silicon			Silver			Sodium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	0.323	DU	0.323	1490	N	1.41	0.094	U	0.094	108	C	6.58

Site Code	HEIS Sample	Sample Date	Northing	Easting	Tin			Uranium			Vanadium			Zinc		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	2.82	DU	2.82	0.26	*D	0.0129	9.82		0.094	124	N	0.376

Site Code	HEIS Sample	Sample Date	Northing	Easting	Zirconium		
					mg/kg	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	2.97	D	0.098

300-288:1 TCLP Metals Data

Site Code	HEIS Sample	Sample Date	Northing	Easting	Arsenic			Barium			Cadmium			Chromium		
					mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	0.05	NU	0.05	0.0923	N	0.01	0.01	NU	0.01	0.01	NU	0.01

Site Code	HEIS Sample	Sample Date	Northing	Easting	Lead			Mercury			Selenium			Silver		
					mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL
300-288:1	J1TWJ3	06/24/14	116216.5	593026.9	0.033	NU	0.033	0.00067	U	0.00067	0.0823	BN	0.06	0.0126	BN	0.01