

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2

Control No.: 2014-106

Waste Site Code(s)/Subsite Code(s): 300-291, Garnet Sand West of 350-A Paint Shop

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 300-291, Garnet Sand West of 350-A Paint Shop waste site, part of the 300-FF-2 Operable Unit, is 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 300-291 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 300-291 waste site consists of garnet sand on a gravel roadbed approximately 60 m (197 ft) west of the former location of the 350-A Paint Shop. The majority of the garnet sand is no longer visible due to excavation and backfilling of the roadbed for installation of a water main pipeline. However, remaining garnet sand material and soil was located and sampled in the berm area along the roadway.

The 300-291 waste site was recommended for remove, treat, and dispose (DOE-RL 2011); however, no characterization samples were collected at that time. A subsequent in-process 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 300-291 waste site does not pose a risk to human health or the environment.

Additional information is provided in the *Supporting Information for Reclassification of the 300-291, Garnet Sand West of 350-A Paint Shop Waste Site* (attached).

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2

Control No.: 2014-106

Waste Site Code(s)/Subsite Code(s): 300-291, Garnet Sand West of 350-A Paint Shop

Regulator comments:

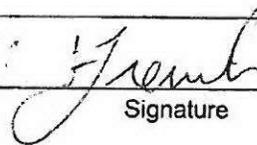
Waste Site Controls:

Engineered Controls: Yes No Institutional Controls: Yes No O&M Requirements: Yes 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
300-291, GARNET SAND WEST OF 350-A PAINT SHOP
WASTE SITE**

Attachment to Waste Site Reclassification Form 2014-106

November 2014

GENERAL SITE INFORMATION AND BACKGROUND

The 300-291, Garnet Sand West of 350A Paint Shop 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 300-291 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 300-291 waste site consists of garnet sand on a gravel roadbed (Figure 1) and is located approximately 60 m (197 ft) west of the former location of the 350A Paint Shop. 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. Based on the location of the garnet sand being in close proximity to the 350A Paint Shop, it is likely the garnet sand was used to sandblast painted surfaces.

The gravel roadbed was excavated in February 2011 to install a water main to the 385 Pump Station. Following the installation of the 41-cm (16-in.)-diameter water main pipeline, the site was backfilled and covered with approximately 0.6 to 1.0 m (2 to 3 ft) of clean soil (Figure 2). The 300-291 site location map is provided in Figure 3.

SAMPLING ACTIVITIES

The garnet sand is no longer visible along the gravel/dirt roadway due to the installation of the pipeline; however, a small amount is present on a berm located on the north side of the roadway (Figure 4). A discrete grab in-process sample (J1TWJ8) consisting of garnet sand material and soil was collected from the berm area on June 24, 2014 (Figure 5). 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 sample collected is provided in Table 1. The 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.

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.

Figure 1. Photograph of the 300-291 Waste Site in August 2009.



Figure 2. Photograph of the 300-291 Waste Site (April 13, 2011).



Figure 3. The 300-291 Waste Site Location Map.

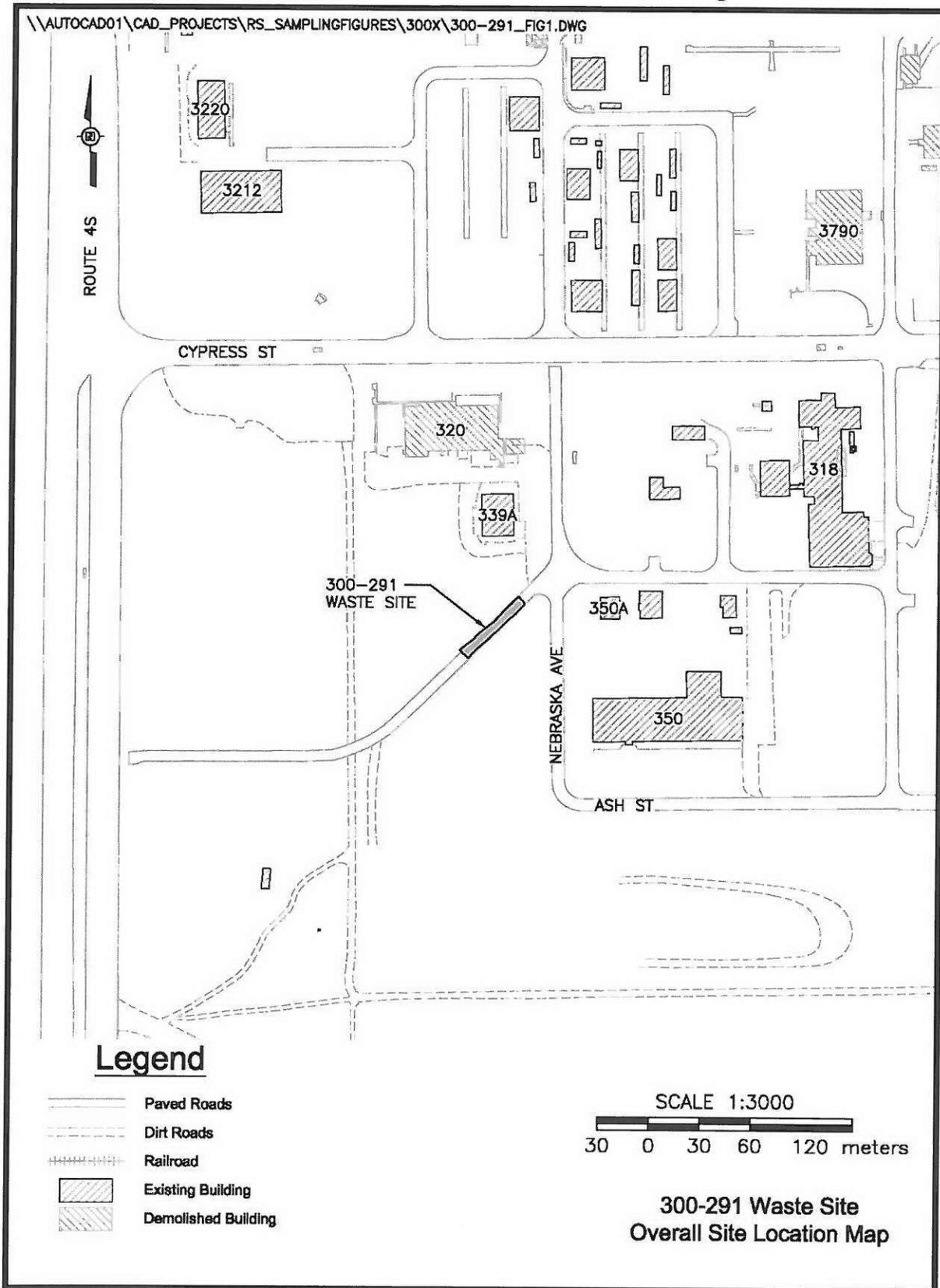


Figure 4. Photograph of the 300-291 Sample Location.



Figure 5. Photograph of the 300-291 Sample Location.



Table 1. In-Process Sample Summary for the 300-191 Waste Site.

Sample Location	Sample Type	HEIS Number	Sample Date	Washington State Plane Coordinate Locations (m)	Sample Analysis
300-291	Discrete	J1TWJ8	6/24/2014	N 115390.5 E 593837.1	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

Table 2. 300-291 Waste Site 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

Sample Results

An in-process sample collected of the 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. The laboratory-reported data 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 300-291 waste site 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.

300-291 Metals Data

Site Code	Sample Number	Sample Date	Northing	Easting	Aluminum			Antimony			Arsenic			Barium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	5330	N	6.84	1.63	C	0.332	0.503	U	0.503	47.1		0.101

Site Code	Sample Number	Sample Date	Northing	Easting	Beryllium			Boron			Cadmium			Calcium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	0.731		0.101	3.96	B	1.01	0.367	B	0.101	3630	N	8.04

Site Code	Sample Number	Sample Date	Northing	Easting	Chromium			Cobalt			Copper			Iron		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	4.29		0.151	6.47		0.151	12.6		0.302	13000		8.04

Site Code	Sample Number	Sample Date	Northing	Easting	Lead			Lithium			Magnesium			Manganese		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	14.5		0.332	4.06	D	0.393	2300	N	8.55	156	N	0.201

Site Code	Sample Number	Sample Date	Northing	Easting	Mercury			Molybdenum			Nickel			Potassium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	0.0037	U	0.004	0.356	B	0.201	5.78		0.151	943		6.43

Site Code	Sample Number	Sample Date	Northing	Easting	Selenium			Silicon			Silver			Sodium		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	0.324	DU	0.324	2460	N	1.51	2.01	DU	2.01	547		7.04

Site Code	Sample Number	Sample Date	Northing	Easting	Tin			Uranium			Vanadium			Zinc		
					mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	6.03	DU	6.03	0.413	*D	0.013	30.7		0.101	54.2	N	0.402

Site Code	Sample Number	Sample Date	Northing	Easting	Zirconium		
					mg/kg	Q	PQL
300-291	J1TWJ8	06/24/14	115390.5	593837.1	13.5	D	0.098

300-291 TCLP Metals Data

Site Code	Sample Number	Sample Date	Northing	Easting	Arsenic			Barium			Cadmium			Chromium		
					mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL
300-291	J1TWJ8	6/24/14	115390.5	593837.1	0.05	NU	0.05	0.142	N	0.01	0.01	NU	0.01	0.01	NU	0.01

Site Code	Sample Number	Sample Date	Northing	Easting	Lead			Mercury			Selenium			Silver		
					mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL
300-291	J1TWJ8	6/24/14	115390.5	593837.1	0.033	NU	0.033	0.00067	U	0.00067	0.06	NU	0.06	0.01	NU	0.01