

## Waste Site Reclassification Form

<u>Date Submitted:</u> 8/2/2004	<u>Operable Unit(s):</u> 100-BC-1	<u>Control Number:</u> 2004-132
<u>Originator:</u> DN Strom	<u>Waste Site ID:</u> 600-33	<u>Lead Agency:</u> EPA
<u>Phone:</u>	<u>Type of Reclassification Action:</u>	
	Rejected <input checked="" type="checkbox"/>	
	Closed Out <input type="checkbox"/>	
	Interim Closed Out <input type="checkbox"/>	
	No Action <input type="checkbox"/>	

This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed out, interim closed out, or no action and authorizing backfill of the site, if appropriate. Final removal from the National Priorities List of no action, interim closed-out, or closed-out sites will occur at a future date.

**Description of current waste site condition:**

On September 29, 2004, five soil locations were trenched and inspected for evidence of WIDS site 600-33, the 105-C Reactor Test Loop Burial Site. The first test location was at the coordinates reported in the WIDS which are approximately 100 meters south of the 105-C reactor. No radioactivity was detected in the test trench that was dug down to native soil. No evidence of a test loop was found. Three additional test trenches were dug along a north-south line between the first site and the 105-C reactor. The second site was about mid-way between the first site and the 105-C reactor near an "Underground Radioactivity" sign. The third and fourth sites were within 20 meters of the reactor. No evidence of the Test Loop was found. The fifth test trench was dug at a cobble-filled trench about 520 meters west-southwest of the WIDS coordinates i.e. the first test site. The fifth test site was identified as a potential burial site during the 100-B/C Orphan Sites Evaluation field walk-down completed in August 2004. Ground-Penetrating Radar (GPR) measurement data indicated an underground linear anomaly at this location. During the test trenching, an empty 6-inch steel pipeline was found. The pipeline is believed to have been a water line associated with temporary construction activities for the 105-C Reactor in 1951-1953. No radioactivity was detected; no other buried material was found at this location. The field investigation information is documented in the field logbook EFL-1173-4 including the coordinates for each test site location.

During October 2004, additional historical research found a record for the disposal of the "C-1 Loop Assembly" in the 118-C-1 Burial Ground on 10/31/1962. ["100-C Land Burial Log for 4/4/1962 to 10/31/1965," (FRC Box 56556)].

**Basis for reclassification:**

Based on the best available information, the 600-33 Burial Site for the 105-C Reactor Test Loop was not found. Historical records indicate that the 105-C Test Loop was disposed to the 118-C-1 Burial Ground; it was not permanently buried at the suspect waste site reported to the WIDS (WIDS, 600-33, Reference 3, 4/16/92). Based on the evidence, it is recommended that the 600-33 waste site be rejected.

<i>D. Chris Smith</i> DOE-RL Assistant Manager <i>Project Manager</i>	<i>[Signature]</i> Signature	<i>12/1/04</i> Date
Ecology Project Manager <i>Dennis Paulk</i> EPA Project Manager	<i>[Signature]</i> Signature	<i>12/9/04</i> Date

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Logbook: EFL-1173-4

100 BC Burial Grounds/Remaining Sites-Sampling	
David W. Shea, CHI-AFS, <i>DWShea</i>	Date: 9/29/04
SAF: B04-005	COC: B04-005-019
RWP: 100BC-04-001, rev 9	
Work controlling documents: 100 Areas Burial Grounds Remedial Action Sampling and Analysis Plan (DOE/RL-2001-35, Rev.0), BHI-EE-01, 1.5 Field Logbooks; BHI-EE-01, 1.15, Sampling Documents; BHI-EE-01, 3.0 Chain of Custody	
HPT Support:	C.Rhodes, J. Nelson, D.Miller
Other support:	R.McGuire, C.Grunhouser, M.Hennessey
Weather:	Sunny, cool/warm, little wind
Purpose:	Document field activities with the remediation of the 600-233 site and the pot holing at possible locations of the 600-33 test loop site, receipt of tritium from HPTs

Time	Notes:
0700	D.Shea attends POD in FE&C construction office, no sampling is planned at this time however, monitoring of field activities will occur.
0730	D.Strom and D.Shea walk down the 5 <sup>th</sup> possible location for the 600-33 waste site. The site consists of a cobble filled disturbed area WSW of the 100C Reactor ISS project. The site is marked with flagging.
-0745	D.Shea and D.Strom return to the BHI construction office complex. HPT D.Miller informs D.Shea that wipes are available for tritium analysis.
-0745	D.Shea prepares for field activities including signing in under the RWP
0756	Arrive at 600-233, FE&C track-hoe operator R.McGuire preping site for loadout (collecting spoil soils and other materials together)
0816	Suspend work, hit small diameter pipe w/ liquid
0843	D.Shea departs for PPE and Scas-pac. FE&C is setting up supplied air and an exclusion zone
0913	D.Shea and M.Hennessey enter exclusion zone to collect unknown fluid and monitor for volatile emissions
0916	Pipe is schedule <u>20</u> iron pipe, 3/4" in diameter. Sample (~150mL) of cloudy slightly viscous fluid collected by bending the end of the pipe down over a 1L glass jar (no HEIS ID set up yet). The other end on the pipe is buried under a mound of soil to the loaded out. Material was tested for water solubility; insoluble. No response on PID. On the east side of the load out soil pile two pipes are visible. One pipe is the 3/4" one, then there is a second pipe 1" in diameter. Both pipes enter into the north sidewall of the trench. No fluids could be collected from the pipes.
0923	Ends of all pipes secured with duct tape, end of section with fluid first covered w/ chemical absorbent pad and then taped.
0932	D.Shea and M.Hennessey exit exclusion zone
0943	Depart for first 600-33 pot hole location
0958	Start pot hole. C.Grunhouser track hoe operator, C.Rhodes HPT
	Stop pot hole to establish 50' exclusion zone
1004	Resume pothole activities, 1 <sup>st</sup> bucket (checking 1 out every 5) PID at Bkg, NaI at 2.5K (Bkg @ 2.06K), β @ 250 (Bkg). Encounter steel pipe approximately 6" in diameter, no fluids observed, no respopnce on PID, appears to be a water line, appeared to have a tar/fibrous wrap
1023	2 <sup>nd</sup> bucket checked, native soil, all instruments at Bkg levels. HPT C.Rhodes places NaI into excavator bucket on intergrate mode. No elevated counts
1055	2 <sup>nd</sup> hole started. The proximity of this pothole to the 100-C-9 sanitary sewer is discussed with the operator. 1 <sup>st</sup> bucket checked, PID 1.9 a/b meter at Bkg; 2 <sup>nd</sup> bucket checked, PID at 1.2 α/β meter at Bkg; 3 <sup>rd</sup> bucket checked, PID same, α/β meter at Bkg; 4 <sup>th</sup> bucket PID @ 1.7, α/β @ Bkg soil is still soft like disturbed soil; 5 <sup>th</sup> bucket PID @ 2.8, α/β meter at BKG. HPT C.Rhodes places NaI into excavator bucket on intergrate mode. No elevated counts.
1115	Excavation backfilling begun, (interrupted by lunch break)
1220	Back fill of 2 <sup>nd</sup> hole completed
1223	Pot hole 3 started. 1 <sup>st</sup> bucket no elevated readings; 2 <sup>nd</sup> bucket PID @ 0, α/β @ Bkg. In native soil. HPT C.Rhodes places NaI into excavator bucket on intergrate mode. No elevated counts.
-1230	4 <sup>th</sup> pothole begun. D.Shea called to last pot hole site by T.Cook and M.Clancey. Radio traffic indicates metal, wire, and concrete debris being found. Work temporarily suspended until T.Cook, D.Shea, and M.Clancey arrives back at the site.

*Shea  
9/30/04*

*DWShea  
9/30/04*

David W. Shea, CHI-AFS, *DWShea*  
 Read and understood by: *Doug Bewers / Doug Bewers*  
 Data recorded in real time on a laptop computer

Date: *9/30/04*  
 Date: *10-4-04*  
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Signature

Date

Signature

Date



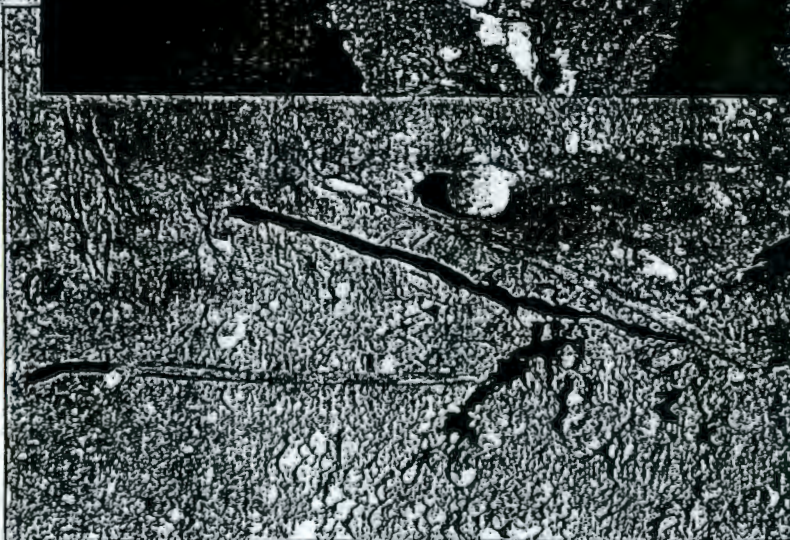
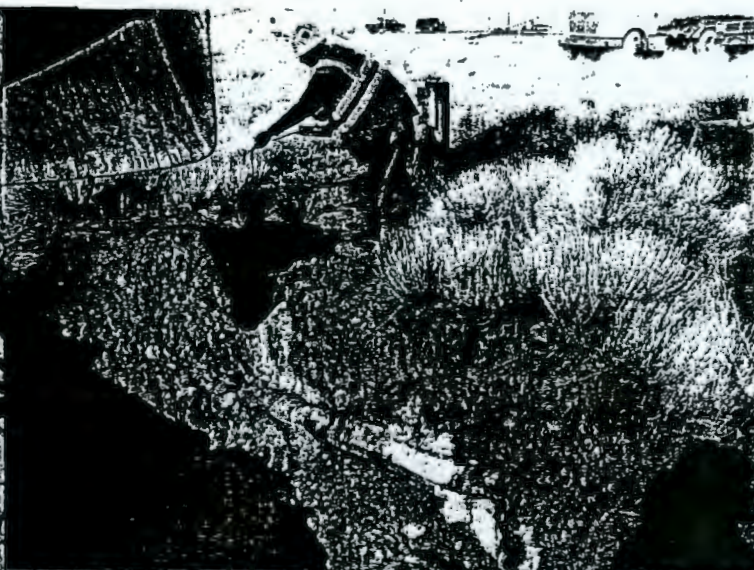
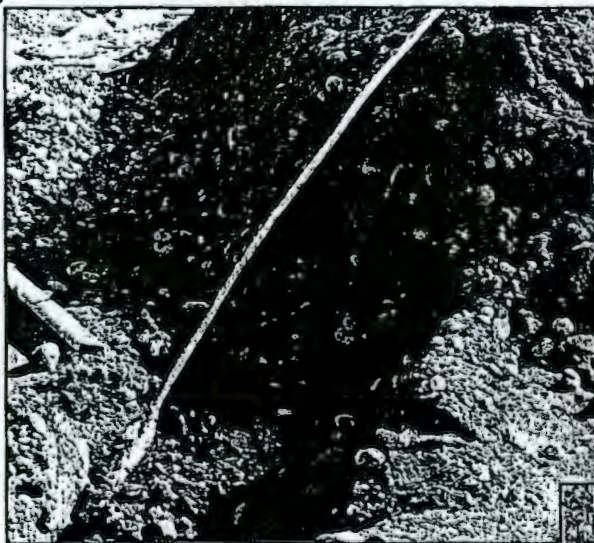
**100 BC Burial Grounds/Remaining Sites-Sampling (continued)**

Dave Shea, CHI-AFS, *DWShea* Date: 9/29/04

	Return to site, foundation of a building found at northern end of pothole. Foundation is about 3' below grade. Southern end of pothole is about 5' below grade and is still in disturbed soil. Given that it is unlikely that the test loop would have been buried next to a building, it is decided to move on to the next site. An AMP 100 was used to measure $\gamma$ activity; activity was at background.
~1300	Team and equipment relocates to the 5 <sup>th</sup> pothole. Excavation activities begins.
	Bucket surveyed, activity at bkg no elevated reading on PID. A few more scoops brings the excavation to 8' and native soil. No elevated PID reading. HPT C.Rhodes places NaI into excavator bucket on intergrate mode. No elevated counts.
~1330	This concludes the 600-33 pot holing activities. No test loop was found.
1400	Received nine tritium wipes from HPT D.Miller (See RSR 100BC-04-1626 for sample IDs, all J01VM1 through J01VM9)
~1530	D.Bowers transports tritium wipe samples to town on "blue card". See HPT C.Rhodes survey on potholes (RSR 100BC-04-1629)

*DWShea*  
*9/30/04*

*DWShea*  
*10/2/04*



Top left, 3/4" steel pipe, leaking suspected deisel fuel at the 600-233 site.

Top right, HPT C.Rhodes performs NaI survey on discovered pipe at first 600-33 pot hole location. View is to the NW.

Bottom. The two other lines at 600-232. No fluids could be obtained from these pipes.

David W. Shea, CHI-AFS *DWShea*  
Read and understood by: *Doug Bowers/Doug Bowers*  
Data recorded in real time on a laptop computer

Date: *9/30/04*  
Date: *10-4-04*  
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Signature

Date

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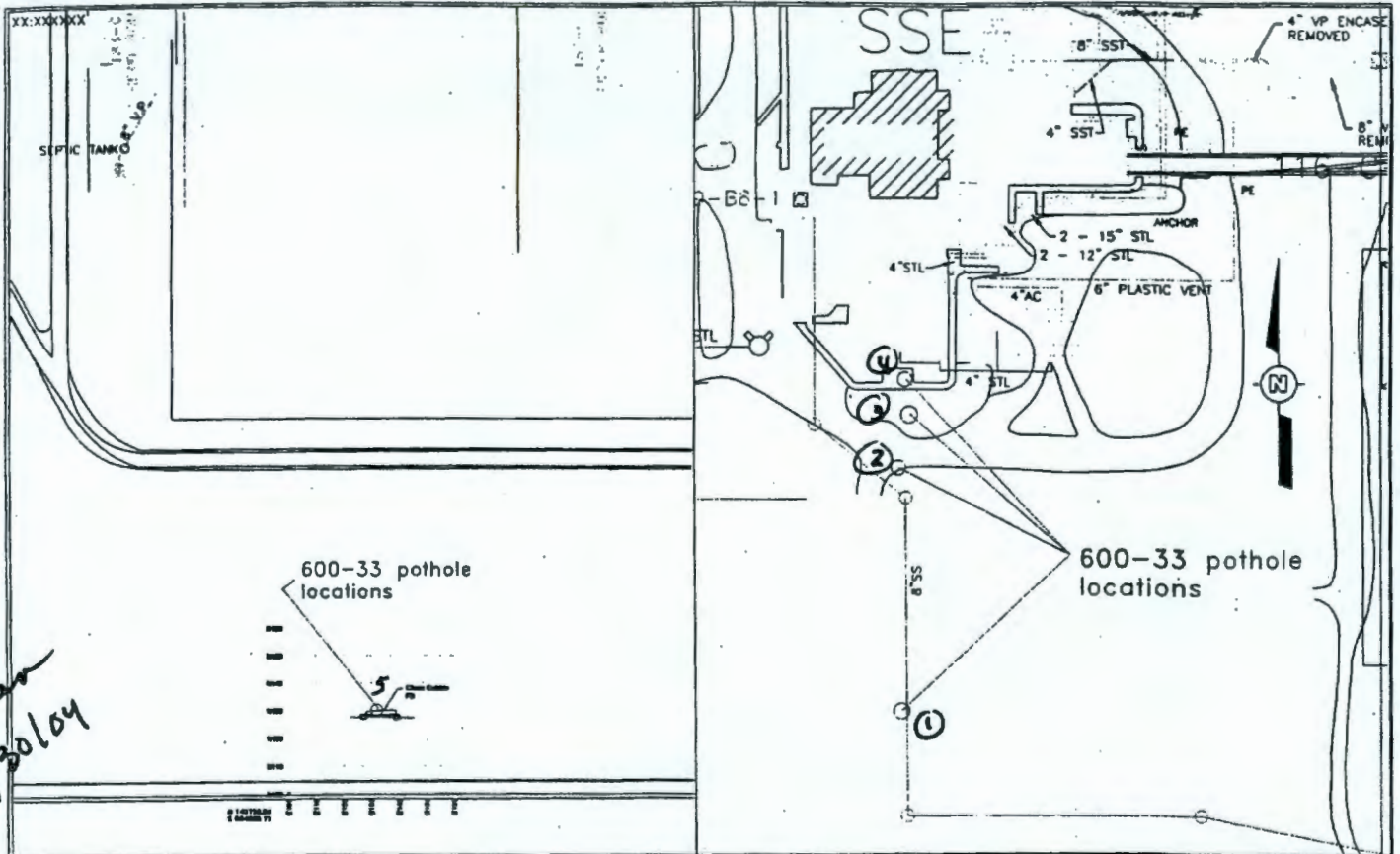


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Logbook: EFL-1173-4

**100 BC Burial Grounds/Remaining Sites-Sampling (continued)**  
 Dave Shea, CHI-AFS, *DWShea* Date: 9/29/04



*DWShea*  
9/30/04

U.S. DEPARTMENT OF ENERGY  
 DOE FIELD OFFICE, RICHLAND  
 HANFORD ENVIRONMENTAL RESTORATION PROGRAM

100 BC Burial Grounds  
 600-33 pothole locations

*This log begun & prepared on 9/29/04, printed & attached to logbook once exact locations of 600-33 potholes became available DWS 9/30/04*

*DWShea*  
9/30/04

pothole #	Northing	Easting
1	143847	565369
2	143916	565369
3	143931	565372
4	143940	565371
5	143769	565855

E0209040.1

David W. Shea, CHI-AFS, *DWShea*  
 Read and understood by: *Doug Bowman/Beng Bowman*  
 Data recorded in real time on a laptop computer

Date: *9/30/04*  
 Date: *10-16-09*  
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Signature \_\_\_\_\_ Date \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_