Attachment 1: Facility Information (4 pages)

100-N D4 Project Facility Completion Form

Introduction

This document provides information regarding the 1330-N Waste Storage Facility history, characterization and final status at the completion of deactivation, decontamination, decommissioning and demolition (D4) activities.

The Waste Information Data System (WIDS) identifies the 1330-N Waste Storage Facility as Site Code 116-N-8. Other names used to identify this facility, have included; 1330-N, 1330-N Waste Storage Pad, 116-N-8, 116-N-8 Storage Pad, and 163-N Mixed Waste and Hazardous Waste Container Storage Pad.

Site Information

The 1330-N Waste Storage Facility was a curbed and fenced concrete pad. The pad was covered by an open metal shed, installed over the pad in the late 1980's that was divided into three storage areas each with its own locked gate. The entire unit was approximately 150 feet by 60 feet. The south and west sides of the unit had sheet metal siding. The east and north sides were open. An asphalt parking/driving area was on the north side, gravel surrounded the rest of the facility. A temporary metal enclosure (a.k.a. Perma-Con® Unit) was located on the east end of the pad and was used as an enclosure for opening and inspecting containers. A three-unit flammable/hazardous materials storage shed was located on the north end of the middle storage area.

The 1330-N Waste Storage Facility was used to store and package waste for disposal. The site operated as a 90-day storage pad receiving radioactively contaminated oil and miscellaneous hazardous process chemicals in drums and other containers, as identified in the WIDS general summary report for site code 116-N-8 (included as Attachment 2). The metal Perma-Con® Unit on the east side was used as a containment to inspect and package radioactive materials for disposal. There is no history of spills occurring on the pad and no stains were observed during facility walkdowns.

Facility description information was collated from the *Historical Site Assessment for the 1120-N Training Building and 1330-N Waste Storage Facility* (CCN 134712).

Radiological Scoping and Industrial Hygiene Baseline Surveys

A radiological scoping survey of the building was preformed prior to demolition and documented in RSR-100N-08-0973. The survey included a total of 30 direct readings and smears, focused on the east area of the facility, which was posted as a Radioactive Material Area at the time. No Industrial hygiene Baseline survey was performed at the 1330-N Waste Storage Facility. See Table 1 for a summary of radiological scoping survey results.

Table 1. Summary of Scoping Surveys 1330-N

Type	Quantity	Method Detection Limits	Results
Radiological Scoping Surveys	1 Survey – 30 sample points	Alpha – 20 removable / 500 fixed (dpm/100cm^2) Beta-gamma – 1,000 removable / 5,000 fixed (dpm/100cm^2)	All results were below method detection limits.

Post Demolition Radiological Surveys

The final radiological down-posting survey was performed in June 2008 and documented in RSR-100N-08-1114. All areas were directly surveyed. All surveyed areas are at less than detectable levels and a summary of the results are included in Table 2.

A post-demolition Global Positioning Environmental Radiological Survey (GPERS) was conducted on the 1330-N facility area as a final survey of this site in November 2008. A Beta and Gamma survey was performed. During the Beta radiation survey, 3090 data points were measured and no data point was greater than 2 times the average background of 411 counts per minute. During the Gamma radiation survey, 3090 data points were measured also and no data point was greater than 2 times the average background of 1106 counts per minute. A summary of the GPERS results are included in Table 2 and copies of the survey maps are in Attachment 3.

Facility & Waste Characterization Sampling

An asbestos inspection was conducted in January 2007 and is documented in CNN 132955 and logbook EL-1516-11 page 41. During the inspection, no potential asbestos containing material was identified. No samples needed to be collected to complete facility and waste characterization.

Demolition

Demolition of the above-grade structure of the 1330-N Waste Storage Facility and its slab was completed in June 2008. The demolition material was loaded into roll-off containers and sent to the Environmental Restoration Disposal Facility (ERDF) for disposal.

Civil Survey Information

A pre-demolition GPS survey of the concrete pad corners was conducted February 2008. A post demolition GPS survey of the old building site was conducted November 2008. Both surveys are included in Attachment 4.

Anomalies

No anomalies were reported with the demolition and load out of the 1330-N Waste Storage Facility.

Final Building Status & Underlying Soil

The 1330-N Waste Storage Facility was demolished to the concrete pad in June 2008. After demolition was completed the building debris was stockpiled, sized reduced on the concrete pad, loaded out and disposed at the ERDF. Demolition and removal of all traces of the concrete pad was also completed in June 2008. A minimal amount of soil was removed along with the concrete pad. Backfill material from 100-N Borrow Pit was brought in to regrade the site.

All D4 post-demolition characterization is complete and an assessment of the contaminants of concern is presented in Table 2. This characterization is in agreement with clarifying language captured in the Unit Manager's Meeting minutes of 8/14/08 as an agreement between DOE and Ecology. In accordance with that agreement, a visual inspection of the excavated area was conducted as well as appropriate radiological surveys. No soil staining or radiological contamination was identified.

Table 2. Contaminants of Concern for Facility Demolition

Contaminant of Concern	Determination of no impact to the soil
Radionuclides	A radiological down-posting survey was conducted on the site – 54 sample points (24 direct readings and 30 technical smears). All sample results were below the following method detection limits: Alpha – 20 removable / 500 fixed (dpm/100cm^2), Beta-gamma – 1,000 removable / 5,000 fixed (dpm/100cm^2). Additionally, a Global Positioning Environmental Radiological Survey (GPERS) conducted on the 1330-N Waste Storage Facility as a final survey of this site and found that all sampling points for Beta and Gamma radiation were less than 2 times the average background.
Chemicals	All containerized chemicals and other hazardous materials were removed prior to demolition. In addition, visual examination for stained soil prior to backfill was conducted to ensure no legacy or newly discovered staining was identified.
Metals	All containerized chemicals and other hazardous materials were removed prior to demolition.
Asbestos	No asbestos containing material was identified, as documented in CCN 132955 and logbook EL-1516-11 page 41.

References

CCN 134712, *Historical Site Assessment for the 1120-N Training Building and 1330-N Waste Storage Facility,* Encke, D. B., July 2007, Washington Closure Hanford, LLC, Richland, Washington

CCN 132955, *Asbestos Inspection Summary Report for the 1330-N Waste Storage Pad,* Hood, A. M., March 2007, Washington Closure Hanford, LLC, Richland, Washington

DOE-RL, 2006, *Removal Action Work Plan for 100-N Area Ancillary Facilities*, DOE/RL-2002-70, Rev. 2, U.S. Department of Energy, Richland Operations Office, Richland, Washington

EL-1516-11, *Miscellaneous Sampling, pp 41,* August 2007, Washington Closure Hanford, LLC, Richland, Washington

RSR-100N-08-0973, *Radiological Survey Record – Characterization Survey of 1330-N Waste Pad Prior to Demo,* June 2008, Washington Closure Hanford, LLC, Richland, Washington

RSR-100N-08-1114, *Radiological Survey Record –1330-N Waste Pad Downpost RBA,* June 2008, Washington Closure Hanford, LLC, Richland, Washington

Attachment 2: Waste Information Data System

General Summary Report (3 pages)

Waste Information Data System
General Summary Report

09/10/2009

Site Code: 116-N-8 | **Site Reclassification Status: Rejected** |

Site Names: 116-N-8, 163-N Mixed Waste and Hazardous Waste Container Storage Pad, 1330-N, 116-N-8 Storage Pad

Site Type: Storage Pad (<90 day)
Start Date: 1986
Status: Active
End Date:
Hanford Area: 100N
Pipe Type:
OU/WMA: 100-NR-1
Closure Zone:

Site Description: Containers are stored on a curbed and fenced concrete pad. The pad is covered by an open metal shed, divided into three storage areas each with its own locked gate. The entire unit is approximately 45 by 18 meters (150 by 60 feet). A small cabinet in front holds personal protective equipment and spill response materials. The front of the unit is an asphalt parking/driving area; the sides and back are gravel.

Location Description: The site is located south of the 163-N Building.

Site Comment: The pad is clean of both radioactive and chemical contamination. The start date is December 1986.

The pad is an active pad listed on the Environmental Restoration Contractor's 90 Day Pad Inventory List as the 1330N 90 Day Accumulation Area. This method for managing active 90 Day Storage Pads is in agreement with Section 2.0, "Scope," of TPA-MP-14, and thus tracking these sites through WIDS is not necessary. However, once the site becomes inactive, the WIDS summary report will be updated.

The 90 Day Storage Area and all dangerous waste are managed in compliance with WAC 173-303-200(b)(i) and will be closed in compliance with WAC 173-303-630(10).

Release Description: No spills have been recorded at this site. No stains are visible on the concrete.

Environmental Monitoring Description: A weekly log is kept, and daily visual inspections are performed.

References:

1. K. H. Cramer, Hanford Site Waste Management Units Report, May 1987.
2. 2/89 Preliminary Operable Units Designation Project, WHC-EP-0216.
3. L. P. Diediker to F. A. Ruck III, 3/17/88 WHC Mem.: Comment and Revisions to 100 Area Waste Units Listed in 3004(u).
4. Scott Kitts to Nancy Homan, 4/17/90 100N updates for WIDS, DSI.
5. S. L. Cote', 06/94 100-N Area Technical Baseline Report, WHC-SD-EN-TI-251.
6. G. J. Borden, BHI Field Support Waste Management Active <90 Day Pads and Satellite Areas, DOCS# 33012.

Waste Information:

Type: Soil
Category: Mixed
Physical State: Solid
Start Date: 1986
End Date:
Description: This site receives radioactively contaminated oil and miscellaneous hazardous process chemicals in drums and containers. The amounts received are variable based on operations.
References:

1. K. H. Cramer, Hanford Site Waste Management Units Report, May 1987.
2. Scott Kitts to Nancy Homan, 4/17/90 100N updates for WIDS, DSI.

Dimensions:

Length:	46.33	Meters	152.00	Feet
Width:	18.29	Meters	60.00	Feet

References: 1. Scott Kitts to Nancy Homan, 4/17/90 100N updates for WIDS, DSI.

Field Work:

Type: Site Walkdown
BeginDate: 04/12/2000 **FieldCrew:** Steve Weiss
End Date: 04/12/2000
Purpose: Take photo and evaluate site.
Comment: The site is an active pad, well maintained. No spills or leaks are evident.
References: 1. S. G. Weiss, Field Logbook, EL-1428.

Regulatory Information:

Programmatic Responsibility

DOE Program: **Confirmed By Program:** Yes
DOE Division:
Responsible Contractor/Subcontractor:
Reclassifying Contractor/Subcontractor:
ResponsibleProject:

Site Evaluation

Solid Waste Management Unit: Yes
TPA Waste Management Unit Type: Other Storage Area

Permitting

RCRA Part B Permit:	No	**TSD Number:**	
RCRA Part A Permit:	No	**Closure Plan:**	No
RCRA PermitStatus:			
Septic Permit:	No	**216/218 Permit:**	None
Inert LandFill:	No	**NPDES:**	No
Air Operating Permit:	No	**State Waste Discharge Permit:**	No

Tri-Party Agreement

Lead Regulatory Agency: Ecology
Unit Category: 90-Day Storage Pad/Satellite Accumulation Area
TPA Appendix: None

Remediation and Closure

Decision Document:
Decision Document Status:
Remediation Design Group:
Closure Document:
Closure Type:

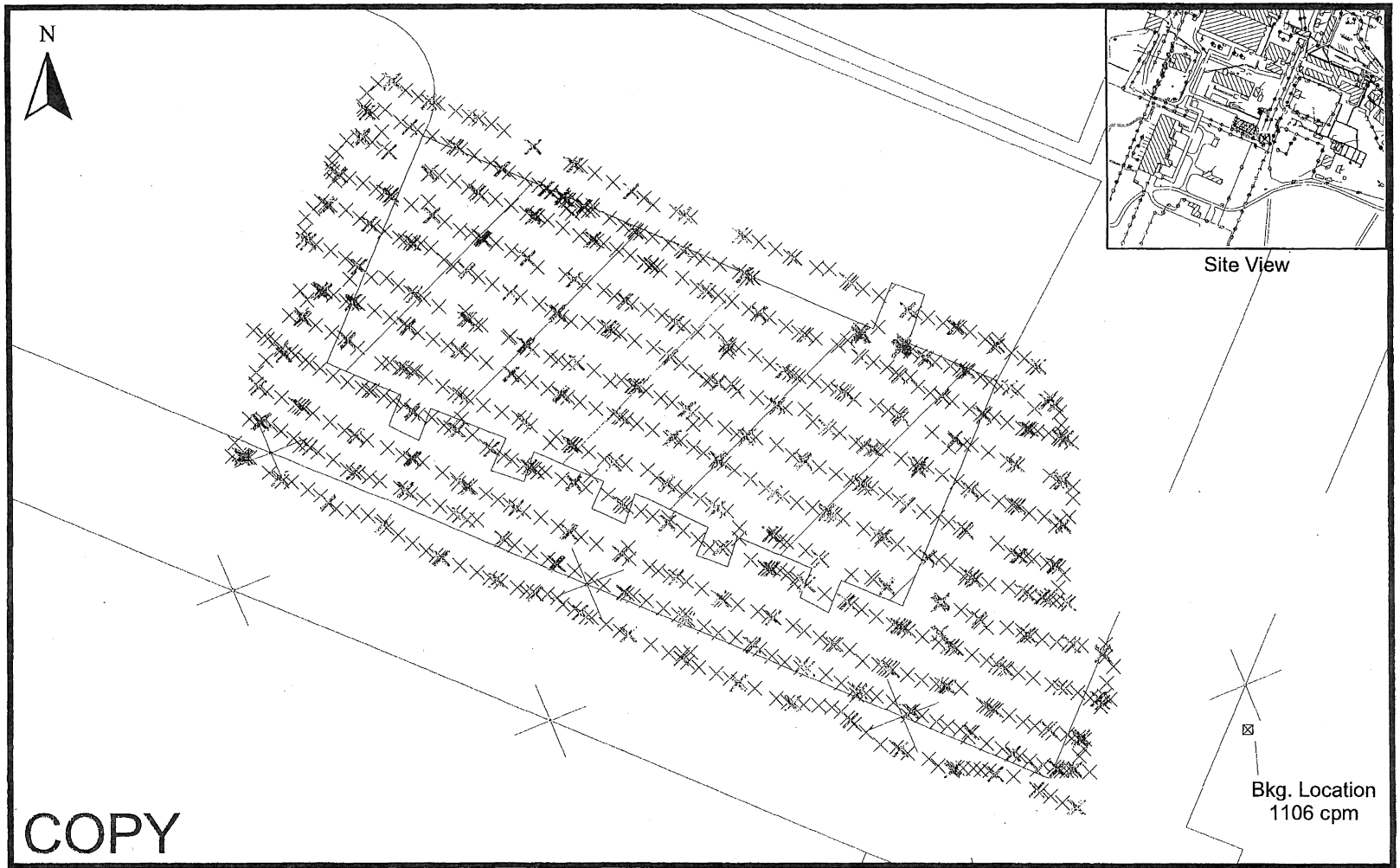
Post Closure Requirements: **ResidualWaste:**

Images:

Pathname: //mapweb.rl.gov/widsimg/100n/0101/0101_01.jpg DateTaken: 04/12/2000

Description: This shed is the 116-N-8 <90 Day Storage Pad.

Attachment 3: GPERS Survey (2 pages)



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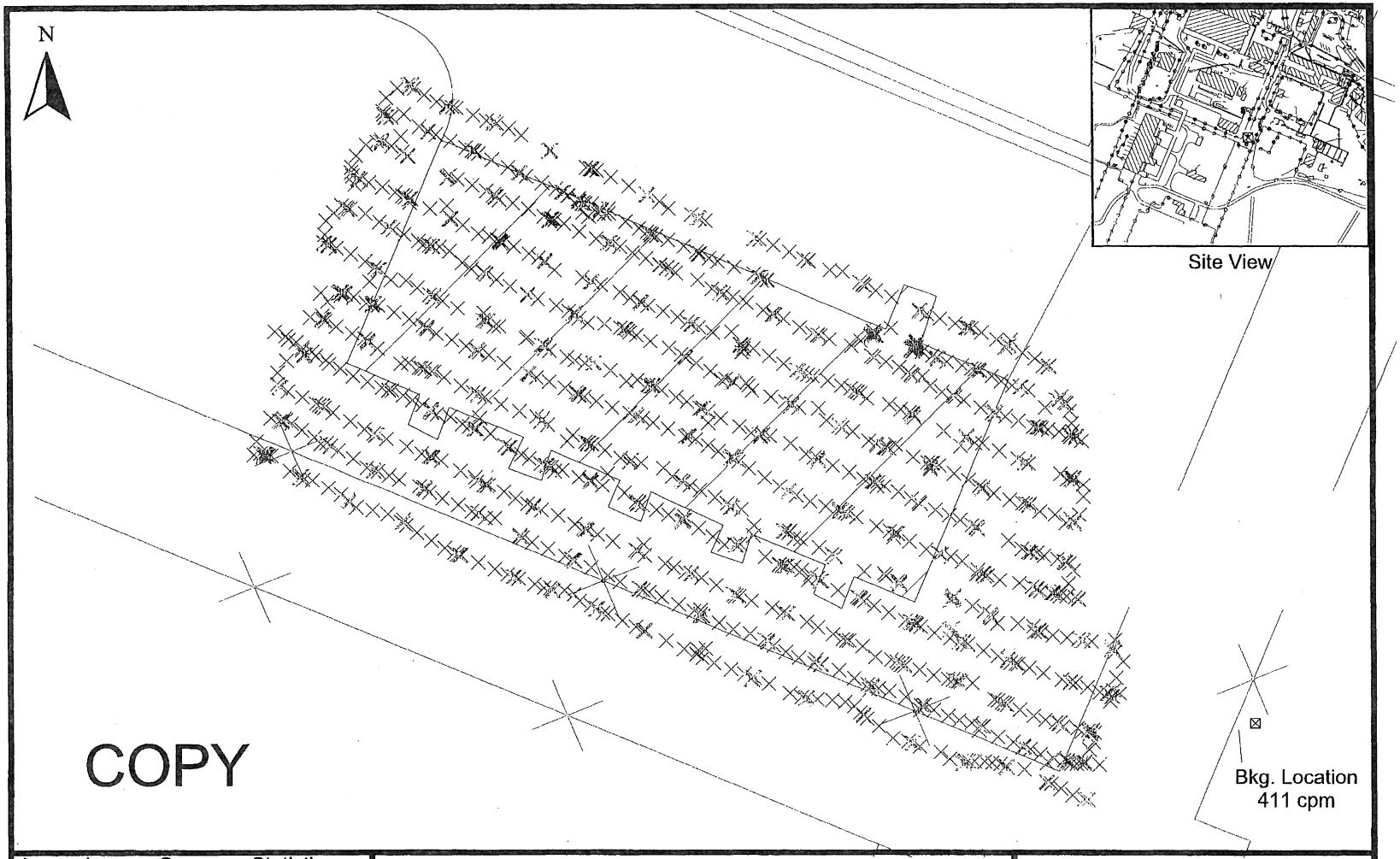
Legend	Summary Statistics
NETCPM	Coverage File: N308
	Number of Data Pnts: 3090
	Type of Survey: 'Gamma'
× < 2212	Max GCPM: 1707
2212 - 5000	Avg Bkg CPM: 1106
● 5000 - 10000	Survey Date: 11/03/2008
● 10000 - 25000	Area Surveyed: 2061 m2
● > 25000	Project File: N308
	Pdf File: ESRFRM080163C

100N Field Remediation
1330-N Waste Pad
GPERS Radiological Survey
Gamma Track Map

4 0 4 8 Meters

EBERLINE SERVICES
HANFORD, INC.

Survey Map Prepared By Jim Craig, ESI



Legend	Summary Statistics
NETCPM	Coverage File: N308_
	Number of Data Pnts: 3090
	Type of Survey: 'Beta'
× < 800	Max GCPM: 388
800 - 1000	Avg Bkg CPM: 411
● 1000 - 1200	Survey Date: 11/03/2008
● 1200 - 1400	Area Surveyed: 2061 m2
● > 1400	Project File: N308_
	Pdf File: ESRFRM080163_C

100N Field Remediation
1330-N Waste Pad
GPERS Radiological Survey
Beta Track Map

8 0 8 Meters

EBERLINE SERVICES
HANFORD, INC.

Survey Map Prepared By Jim Craig, ESI

Attachment 4: GPS Surveys (6 pages)

GPS Survey Report for 1330N Building Pre Demolition

Project : 100N-1-3

User name	maaye	**Date & Time**	4:09:38 PM 2/14/2007
Coordinate System	US State Plane 1983	**Zone**	Washington South 4602
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAD83	**Geoid Model**	GEOID99 (Conus)
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

```
Survey Project Name/Title:              Building Corners for 1330N
Survey Purpose:                 GPS the building corners and surounding features
Requested By:                   Amy Hood
General Site Location:          100N
Charge Code:
Field Surveyor:                 Margo Aye
Computer Software Used:         Trimble Survey Controller, and  Geomatics Office V.11
Survey Equipment Used:          5800
Control Monuments Used:         100-N
Survey Method:                  RTK
Estimated Horizontal Precision: .020m
Estimated Vertical Precision:   .050m
Fieldwork Start Date            1/3/07
Completion Date:                        1/3/07
Notes:
```

Name	Northing	Easting	Elevation	Feature Code	Description
1	149266.939m	571285.867m	140.228m	battery-boxes	
2	149264.737m	571285.032m	140.128m	battery-boxes	
3	149268.446m	571281.960m	140.288m	battery-boxes	
4	149266.288m	571281.157m	140.227m	battery-boxes	
5	149259.628m	571284.395m	140.159m	pipe-edge	
6	149260.087m	571283.380m	139.994m	pipe-edge	
7	149253.178m	571280.456m	140.083m	pipe-edge	
8	149252.120m	571280.018m	140.136m	pipe-edge	
9	149255.805m	571274.108m	140.040m	pipe-edge	
10	149254.857m	571273.670m	139.990m	pipe-edge	
11	149244.019m	571277.666m	140.207m	pipe-edge	
12	149244.243m	571277.268m	137.422m	pipe-edge	
13	149239.922m	571272.893m	140.421m	fd	
14	149239.379m	571273.075m	140.408m	fd	

15	149239.629m	571272.157m	140.464m	fd
16	149238.853m	571272.269m	140.412m	fd
17	149260.028m	571190.705m	140.540m	corn-bldg-1330
18	149239.710m	571181.837m	140.168m	corn-bldg-1330
19	149240.827m	571236.012m	140.301m	corn-bldg-1330
20	149220.438m	571227.336m	140.416m	corn-bldg-1330

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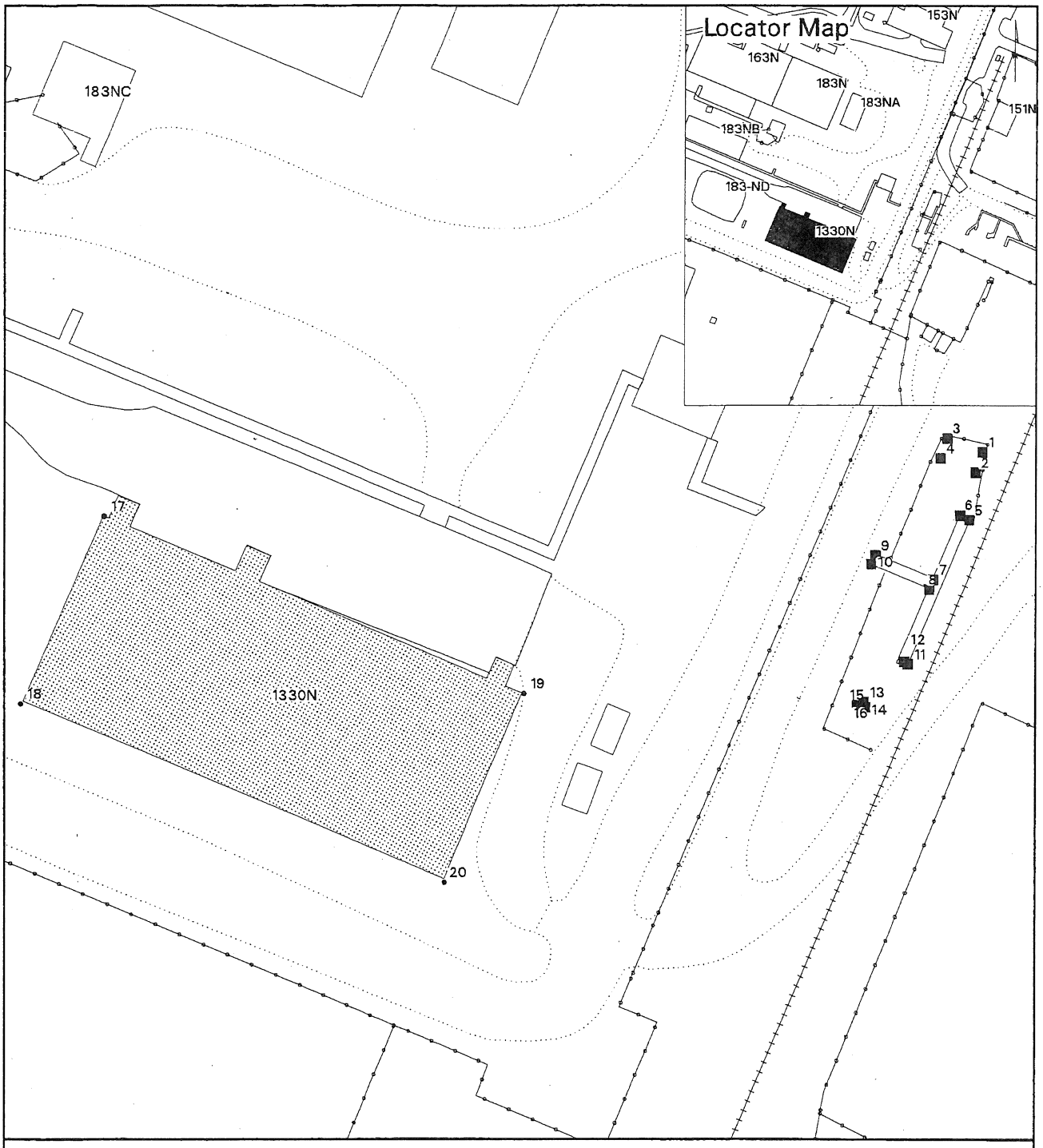

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Post Demo GPS Survey Report for 1330N

Project : Post-1330N

User name	maaye	**Date & Time**	9:00:59 AM 11/25/2008
Coordinate System	US State Plane 1983	**Zone**	Washington South 4602
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAD83	**Geoid Model**	GEOID99 (Conus)
Coordinate Units	Meters		
Distance Units	Meters		
Height Units	Meters		

Survey Project Name: Post Demo Report for 1330N
Date: 11/19/2008
Equipment: 5800
Survey Purpose: Map the demolition site and any protruding features
Requested By: Tom Edmonson
Location: 100N
Charge Code: R1330NN400
Field Surveyor: Margo Aye
Software Used: Trimble Survey Controller, and Geomatics Office V.11
Survey Equipment Used: 5800
Control Monuments Used N-2
Survey Method: RTK
Horizontal Precision: .020m
Vertical Precision: .050m
Fieldwork Start Date: 11/03/08
Fieldwork Completion Date: 11/03/08
Units are in meters
Notes:

Name	Northing	Easting	Elevation	Feature Code
1	149208.707m	571237.878m	140.030m	top
2	149212.796m	571240.410m	140.057m	top
3	149223.679m	571241.101m	140.111m	top
4	149218.873m	571240.280m	139.774m	toe
5	149210.622m	571236.684m	139.481m	toe
6	149210.724m	571233.360m	139.556m	toe
7	149212.906m	571229.921m	139.625m	cut-wires
8	149217.093m	571233.960m	140.076m	topo
9	149217.121m	571236.762m	139.983m	cut-copper-wires
10	149222.181m	571232.995m	140.220m	topo
11	149227.918m	571236.526m	140.287m	topo
12	149236.281m	571239.061m	140.314m	top
13	149241.990m	571236.132m	140.341m	top
14	149247.944m	571222.592m	140.354m	top
15	149253.734m	571208.190m	140.293m	top
16	149262.360m	571188.099m	140.208m	top
17	149250.109m	571179.992m	140.060m	top
18	149235.877m	571176.302m	139.866m	top
19	149226.352m	571198.725m	139.940m	top

20	149218.271m	571218.688m	139.888m	top
21	149214.279m	571228.012m	139.846m	top
22	149224.838m	571228.271m	140.153m	topo
23	149236.559m	571227.463m	139.854m	topo
24	149244.090m	571223.139m	140.117m	topo
25	149245.694m	571216.694m	140.181m	topo
26	149237.548m	571214.944m	140.173m	topo
27	149233.683m	571217.895m	139.876m	topo
28	149229.177m	571213.559m	140.058m	topo
29	149230.814m	571204.634m	139.861m	topo
30	149237.651m	571206.898m	139.901m	topo
31	149245.179m	571207.854m	139.984m	topo
32	149251.206m	571205.435m	140.089m	topo
33	149242.318m	571202.705m	139.955m	topo
34	149236.116m	571200.025m	140.098m	topo
35	149233.590m	571196.667m	139.670m	topo
36	149236.325m	571192.981m	140.122m	topo
37	149237.539m	571189.754m	139.657m	topo
38	149238.435m	571188.127m	139.967m	topo
39	149242.825m	571193.482m	140.043m	topo
40	149248.320m	571199.291m	139.948m	topo
41	149255.929m	571195.849m	140.021m	topo
42	149258.504m	571189.376m	139.990m	topo
43	149253.721m	571185.878m	140.052m	topo
44	149248.965m	571186.695m	139.925m	topo
45	149242.963m	571185.557m	139.918m	topo

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Attachment 5: Photographs (2 pages)

Figure 1. A photograph of the 1330-N Waste Storage Facility before demolition

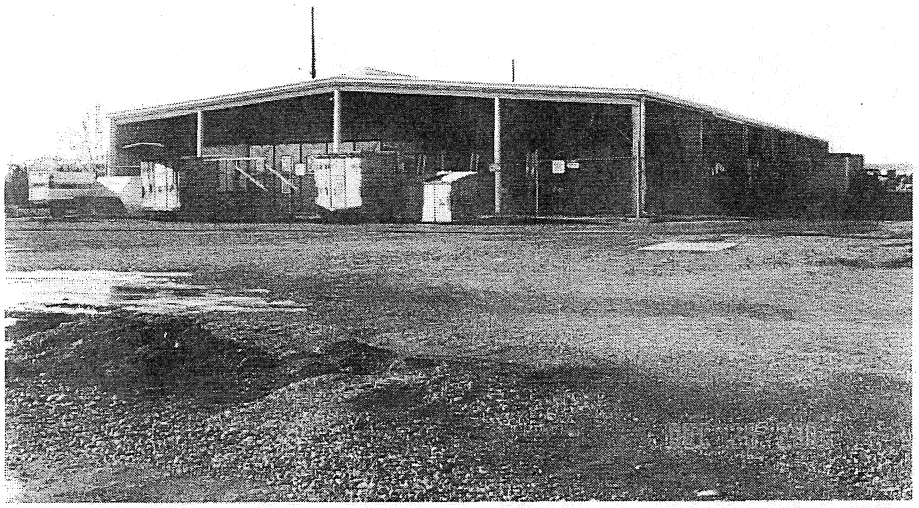

Figure 2. The aerial photograph shows the slab for the 1330-N Waste Storage Facility prior to slab removal.

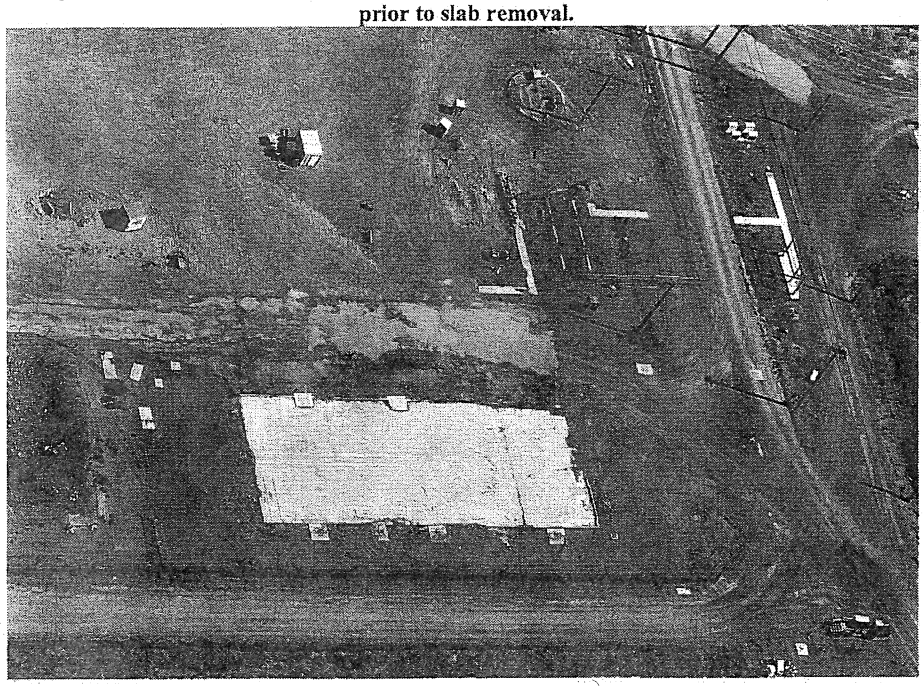
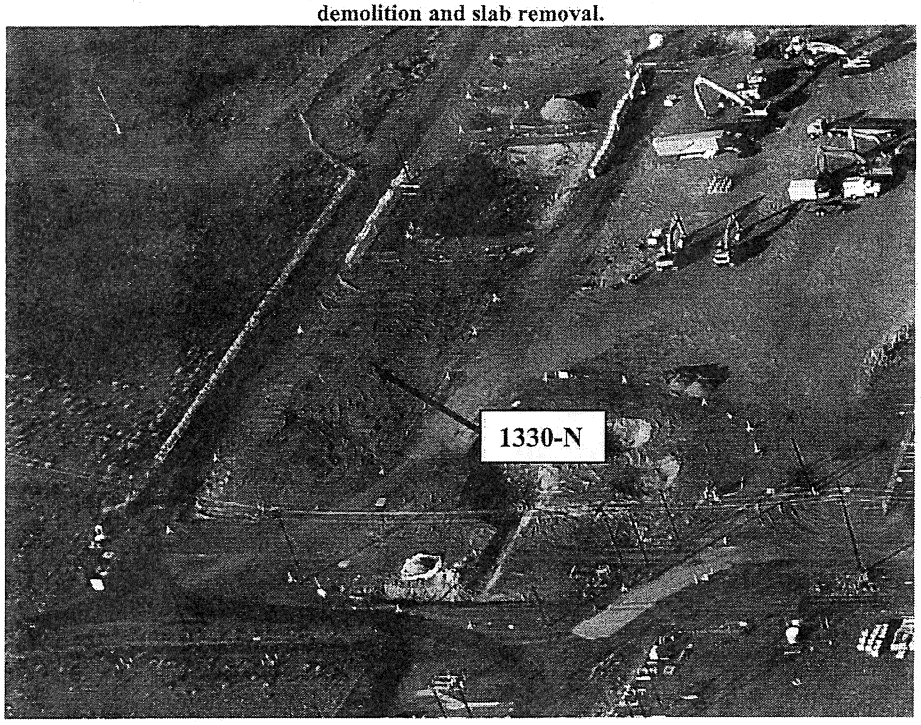
Figure 3. An aerial photograph of 1330-N Waste Storage Facility after demolition and slab removal.