

**FACILITY STATUS CHANGE FORM**

<b>Date Submitted:</b> 8-6-2014	<b>Area:</b> 100-N	<b>Control #:</b> D4-100N-0065
<b>Originator:</b> Dan Saueressig	<b>Facility ID:</b> 100-N AOC Area 8	
<b>Phone:</b> 509-521-5326	<b>Action Memorandum:</b> 100-N Ancillary Facilities	

**This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.**

**Section 1: Facility Status**

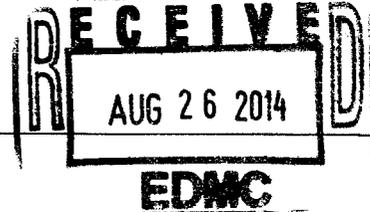
- All D4 operations required by action memo complete.
- D4 operations required by action memo partially complete, remaining operations deferred.

**Description of Completed Activities and Current Conditions:**

The 100-N Area of Contamination (AOC) Area 8 consists of a large area south and east of the 109-N Heat Exchanger Building and provided access/entry to the facilities in the vicinity (105-ND Remote Air Intake, 108-N Chemical Unloading Facility, 151-N Electrical Substation, 153-N Electrical Switchgear Building, 182-N High Lift Pumphouse, 184-N Power House, 163-N Demineralized Water Plant, 183-N Water Treatment Plant and the 185-N HGP Turbine Generator Plant). The area has been backfilled to existing grade.

**Description of Deferral (as applicable):**

N/A



**Section 2: Underlying Soil Status**

- No waste site(s) present. No additional actions anticipated.
- Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.
- Potential waste site discovered during D4 operations. Waste site identification number <to be> assigned. Cleanup and closeout to be addressed under Record of Decision.

**Description of Current/As-Left Conditions:**

The 100-N AOC Area 8 consists of a large area south and east of the 109-N Heat Exchanger Building and provided access/entry to the facilities in the vicinity (105-ND Remote Air Intake, 108-N Chemical Unloading Facility, 151-N Electrical Substation, 153-N Electrical Switchgear Building, 182-N High Lift Pumphouse, 184-N Power House, 163-N Demineralized Water Plant, 183-N Water Treatment Plant and the 185-N HGP Turbine Generator Plant). The area has been backfilled to existing grade.

**Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):**

N/A. Sampling Determination Form provides a listing and description of adjacent waste sites.

**Section 3: List of Attachments**

Sample Determination Form SDF-100N-039

*[Signature]*

DOE-RL *[Signature]*

Lead Regulator  EPA  Ecology

8/7/14

Date

8/10/14

Date

## FACILITY STATUS CHANGE FORM

**DISTRIBUTION:**

EPA: Dennis Faulk, B1-46

Ecology: Wanda Elliott, H0-57

DOE: Rudy Guercia, A3-04

Document Control, H4-11 H0-30

Administrative Record, H6-08 100-NR-1 OU

SIS Coordinator: Benjamin Cowen, H4-22

D4 EPL: Chris Strand, L4-45

Sample Design/Cleanup Verification: Theresa Howell, H4-23

FR Engineering: Rich Carlson, H4-22

FR EPL: Dan Saueressig, X8-02

## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
SDF-100N-039

### A. INSTRUCTIONS

*This form must be completed to: 1) document existing data in order to determine if current data is suitable to prove completion of 100-N Ancillary Facilities, or 2) document that site-specific sampling and analyses are needed to provide completion for 100-N Ancillary Facilities.*

### B. GENERAL INFORMATION

Building Name: 100-N AOC Area 8

Building Number: N/A

#### WIDS Sites Associated or Adjacent:

Historical information reviewed indicates AOC Area 8 functioned primarily as a roadway and asphalted access area to various support buildings south of the 109-N Heat Exchanger. The building footprints and waste sites within AOC Area 8 have their own closure documents [Facility Status Change Forms for ancillary facilities and Remaining Sites Verification Packages (RSVPs) for waste sites]. Some waste sites do not have approved RSVPs in place, however backfill concurrence forms have been approved allowing backfill of the sites while the RSVPs are finalized.

100-N-8, 108-N Facility, 108-N CUF, Rejected, WSRF No. 2000-050.

100-N-10, 120-N-5 Facility Liquid Unplanned Release 2 (09/02/87), Rejected, WSRF No. 2000-052.

100-N-11, 120-N-5 Transfer Trench Liquid Unplanned Release 3, Rejected, WSRF No. 2000-053.

100-N-23, Resin Disposal Pit Liquid Waste Site 1, Interim Closed Out, RSVP-2013-009, WSRF No. 2013-009, Transmittal Letter dated August 6, 2013 (CCN 172204).

100-N-27, 108-N Sump, 108-N Neutralization Pit, Rejected, WSRF No. 2000-054.

100-N-58, South Pond, 120-N South Settling Pond, 1324-N South Settling Pond, Accepted, Closed Out, CVP-2001-00021, WSRF No. 2001-093.

100-N-84:1, 100-N Area Raw Water Pipelines, No Action, RSVP-2010-019, WSRF No. 2010-019, Transmittal Letter dated December 12, 2012 (CCN 169002).

100-N-84:3, 100-N Area Filtered and Potable Water Pipelines, No Action, RSVP-2010-020, WSRF No. 2010-020, Transmittal Letter dated November 14, 2012 (CCN 168594).

100-N-84:4, 100-N Area Steam and Condensate Pipelines, Accepted.

100-N-84:5, 100-N Area Sanitary Pipelines, Accepted.

100-N-84:6, 100-N Area Chemical and Process Sewer Pipelines, Accepted.

100-N-84:7, 100-N Area Unidentified and Other Miscellaneous Pipelines, No Action, RSVP-2011-092, WSRF No. 2011-092, Transmittal Letter dated May 30, 2012 (CCN 165808).

100-N-84:9, 100-N Area Active Raw Water Pipelines, No Action, RSVP-2010-019, WSRF No. 2012-012, Transmittal Letter dated December 12, 2012 (CCN 169002).

100-N-103:1, 100-N Steam Condensate French Drains (inactive), Accepted, No Action, RSVP-2011-114, WSRF No. 2011-114, Transmittal Letter dated 7/30/2012 (CCN 166823).

116-N-8, 163-N Mixed Waste and Hazardous Waste Container Storage Pad, 1330-N, 116-N-8 Storage Pad, Rejected, WSRF No. 2000-035.

120-N-2, 1324-N Surface Impoundment, Accepted.

120-N-5, 108-N/163-N Transfer Line and Neutralization Pit, Rejected, WSRF No. 2000-096.

## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
SDF-100N-039

Other:

Buildings within or near AOC Area 8 include the 105-ND Remote Air Intake, 108-N Chemical Unloading Facility, 151-N Electrical Substation, 153-N Electrical Switchgear Building, 163-N Demineralized Water Plant, 183-N/NA/NB/NC/ND/NE/NF Water Treatment Plant and support buildings, the 1330-N Waste Storage Facility, 1802-N Pipe Trestle, the 1900-N Water Supply Tanks and the 182-N High Lift Pumphouse. All wells within 10 feet from AOC Area 8 have been decommissioned.

### C. INFORMATION SOURCES

Available information (list document number for each if applicable):

Historical Site Assessment: N/A

Site Walkdown: See Attachment 3

IH Characterization Report: N/A

Radiological Survey: See Attachment 4

IHC/FHC Document: N/A

WIDS/SIS: See Section B above.

PDSR: N/A

Facility Inspection: Visual Inspection (Attachment 3)

Waste Characterization Checklist: N/A

Summary Report: N/A

Other:

### D. HAZARDOUS SUBSTANCES

Check all that apply:

None       Asbestos containing material       Lead       PCBs/PCB Articles       Oils/Greases

Chemicals    List: \_\_\_\_\_

Radiological Contamination     Mercury/Mercury Devices

Other: \_\_\_\_\_

References/Comments:

Liquids:  Yes     No

If yes, describe source and nature of liquids:

Were the hazardous substances removed from the facility prior to demolition?     Yes     No

As verified by what documentation:

The AOC is not a facility. Surrounding facilities have their own FSCFs.

Was there potential for hazardous substances to be introduced into the soils during facility operations or demolition?     Yes     No     N/A

References/Comments:

Visual inspection performed (Attachment 3) confirming no staining or other anomalous conditions observed.

List any hazardous materials left in the building for demolition:

N/A

Does review of historical records and process knowledge indicate a potential for radiological or chemical contamination to be present in the facility?

No

Comments:

### E. FIELD OBSERVATIONS

#### Visual Inspection

## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
SDF-100N-039

Were any stained soils/anomalies discovered during or after demolition of the facility?  Yes  No

References/Comments:

Were samples taken of the stained soils/anomalies?  Yes  No  N/A

References/Comments:

Do results of the samples indicate that chemical contamination exists?  Yes  No  N/A

References/Comments:

Is the area potentially a discovery site?  Yes  No

References/Comments:

### Radiological Surveys

Did radiological surveys (GPERS or equivalent) identify contamination?  Yes  No

References/Comments:

Radiological surveys of AOC Area 8 for gamma contamination using GPERS identified no contamination greater than 1.5 x background. A composite diagram of the survey is presented in Attachment 4. In addition, numerous in-process hand held surveys never indicated that radiological contamination was discovered south of the reactor or within the Field Remediation waste sites in AOC Area 8.

Were samples taken of the radiologically contaminated soils?  Yes  No  N/A

References/Comments:

Is the area potentially a discovery site?  Yes  No

References/Comments:

Were the contaminated materials removed?  Yes  No  N/A

References/Comments:

### F. WIDS SITES

Were there any WIDS sites affected by D4 activities?  Yes  No

If yes, list the WIDS sites:

Were the WIDS site(s) completely removed?  Yes  No

References/Comments:

See waste site data in Section B of this Sampling Determination Form.

Will the Ancillary Facility Footprint be deferred to FR to be closed out with a co-located Waste Site?  Yes  No

References/Comments:

### G. COPCs FOR SOILS AND STRUCTURES REMAINING AFTER DEMOLITION

What are the potential contaminants of concern for the remaining below-grade soil?

None  SVOC  VOC  Metals  TPH  Rad  PCBs

Other (Specify): \_\_\_\_\_

## 100-N ANCILLARY FACILITIES REMOVAL ACTION SAMPLING DETERMINATION FORM

Determination Number  
SDF-100N-039

Comments:

Summary of in-process soil sampling requirements:  
N/A

Constituents detected / concentrations / rationale  
N/A

Sample Collection Summary  
N/A

### H. NOTES / ADDITIONAL INFORMATION

Check here if additional information / data / maps / sketches are attached to this form.

If checked, list the attachment(s):

Attachment 1. Photographs or AOC Area 8

Attachment 2. WIDS sites and wells around AOC Area 8

Attachment 3. Visual Inspection of 100-N AOC Area 8

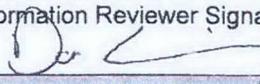
Attachment 4. Global Positioning Environmental Radiological Surveyor (GPERS) survey of AOC Area 8

### I. SAMPLING

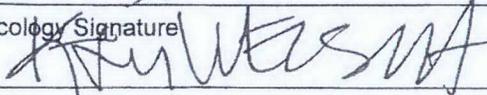
Are soil samples required to demonstrate that remaining structure or below-grade soils meet cleanup standards?  Yes  No

Based on the above information it was determined that sampling:  will  will not be required in order to demonstrate that cleanup criteria have been met.

The individual below acknowledges that the review of this facility has been completed. He or she also commits to provide to the Department of Energy (DOE) and the Washington State Department of Ecology (Ecology) any available information that could alter the sampling decision established in this form.

Information Reviewer Signature 	Printed Name Dan Saueressig	Date 8/6/14
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The regulatory representative below agrees with the decision outlined in section I of this form for the indicated facility and supports implementation of that decision based on the information currently available.

DOE Signature 	Printed Name Rudy Guercia	Date 8/7/14
Ecology Signature 	Printed Name KIM WELSCH	Date 8/18/14

# **Attachment 1**

Photographs of AOC Area 8

Photo 1. Location of AOC Area 8 Relative to Other Structures at 100-N

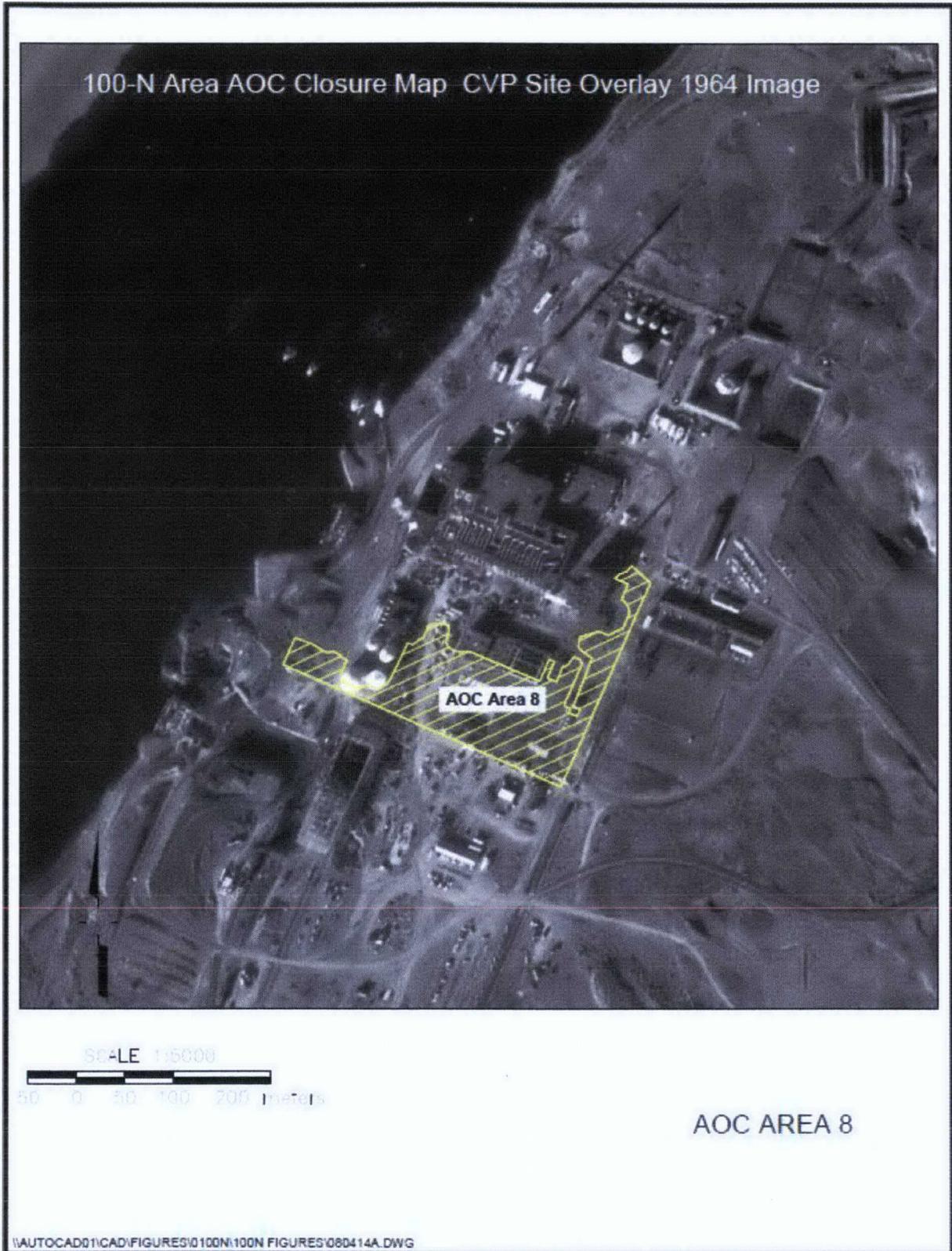
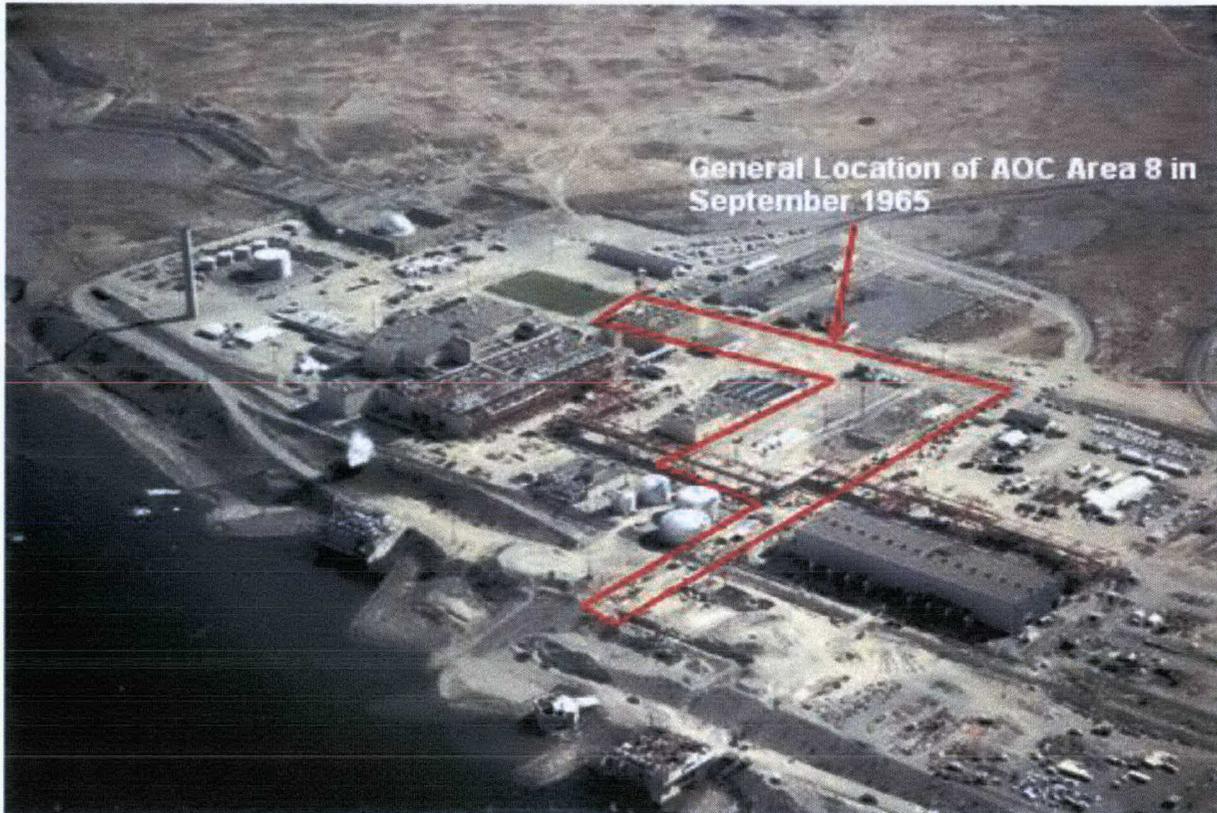


Photo 2. AOC Area 8 at 100-N



Photo 3. AOC Area 8 in September 1965



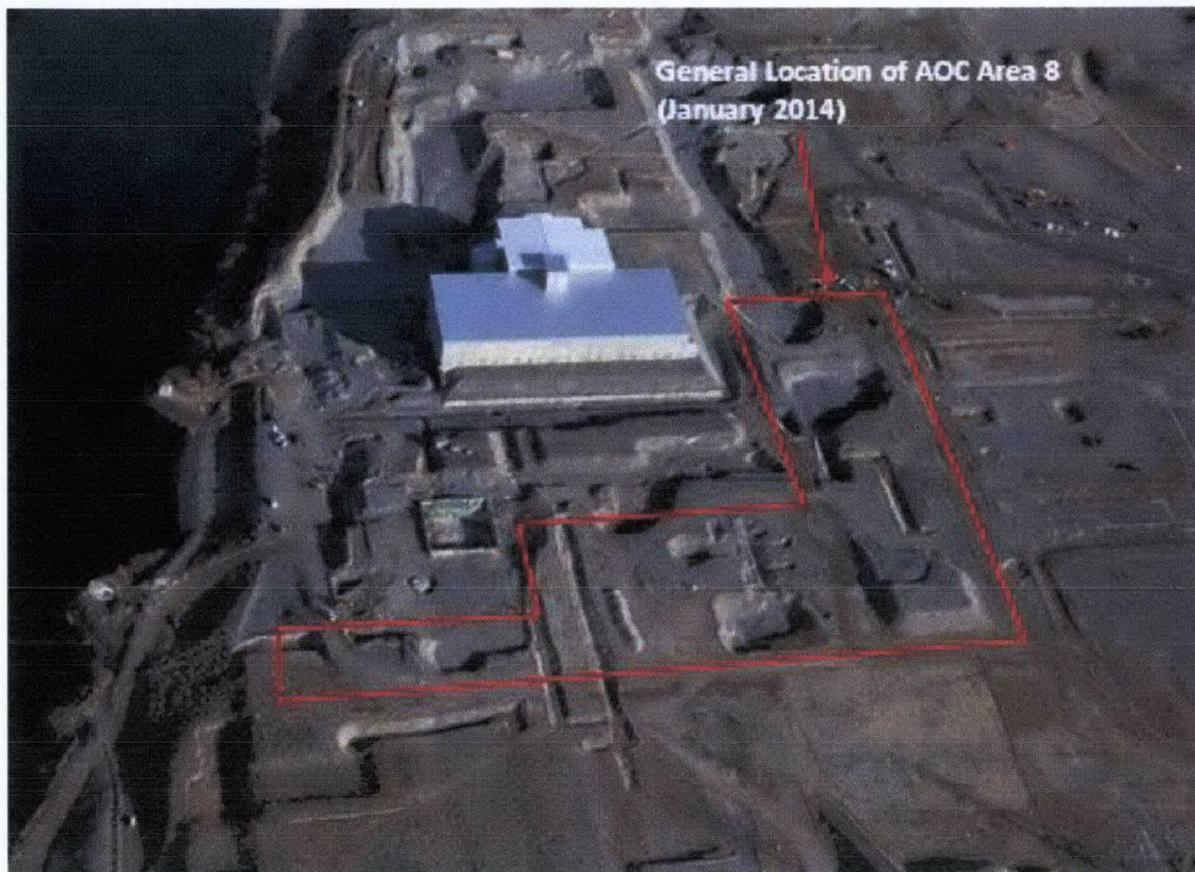
**Photo 4. AOC Area 8 in October 1983**



**Photo 5. AOC Area 8 in January 2007**

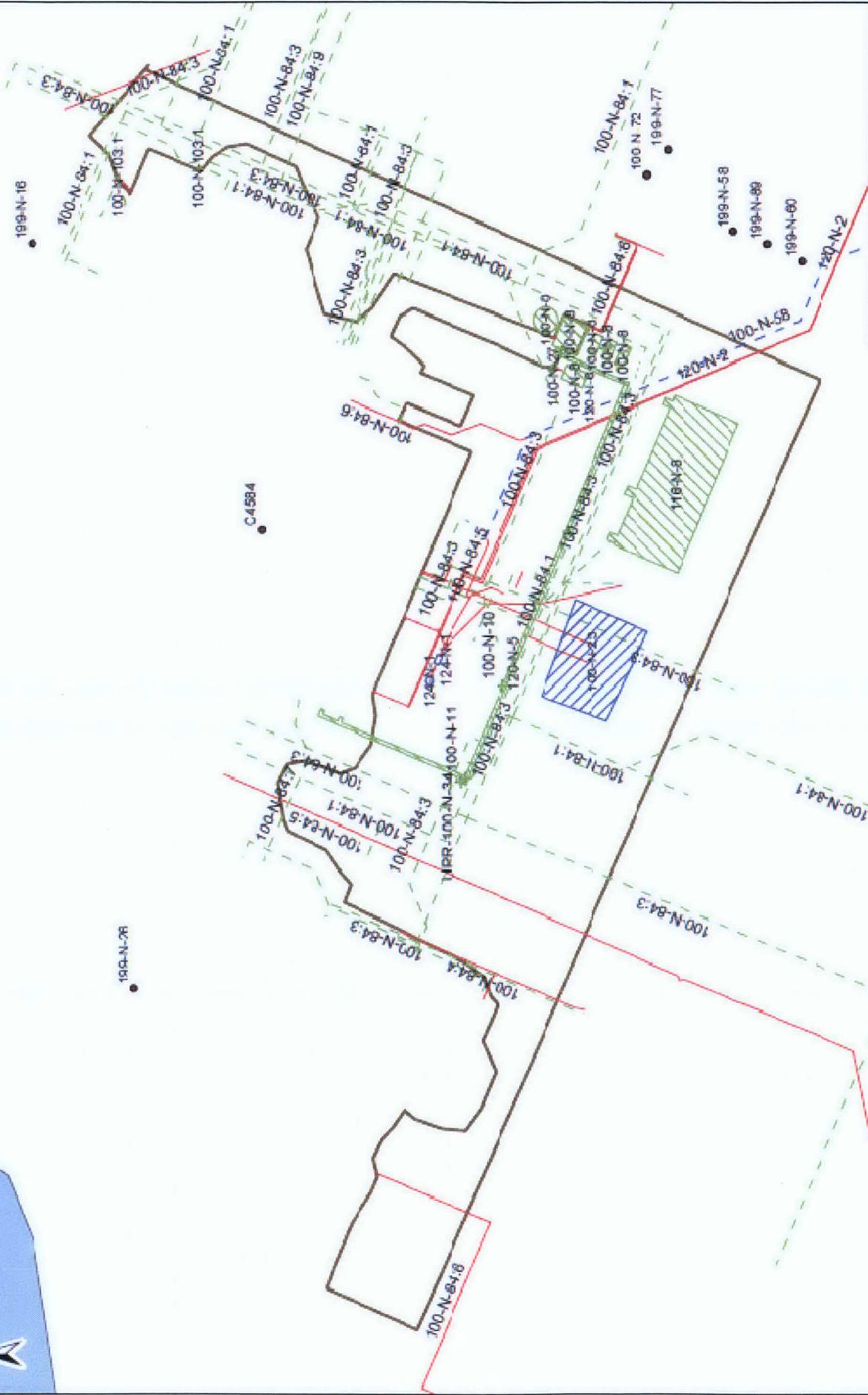
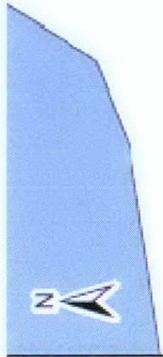


Photo 6. AOC Area 8 in January 2014



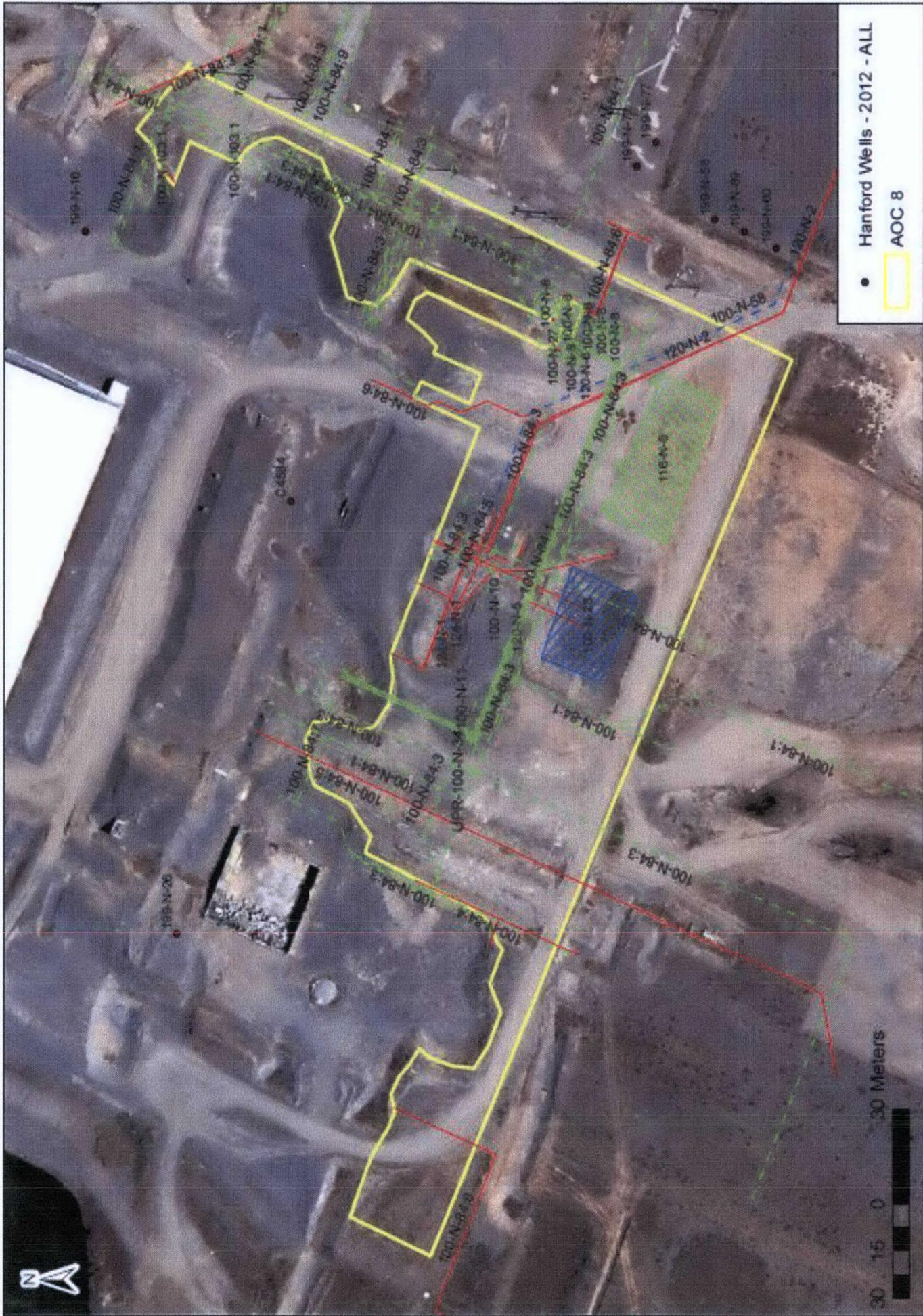
## **Attachment 2**

WIDS Sites and Wells Around AOC Area 8



• Hanford Wells - 2012 - ALL  
□ AOC 8

30 15 0 30 Meters



● Hanford Wells - 2012 - ALL  
□ AOC 8

30 15 0 30 Meters

## **Attachment 3**

Visual Inspection of 100-N AOC Area 8

**^WCH Document Control**

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**From:** Saueressig, Daniel G  
**Sent:** Wednesday, July 23, 2014 1:13 PM  
**To:** ^WCH Document Control  
**Subject:** VISUAL INSPECTION OF 100-N AOC AREA 8

**Attachments:** Visual Inspection Photographs Area 8.doc; N\_Area\_AOC\_8c.pdf

Ladies, please print out the Word attachment (below) in color and chron with this email as documentation that 100-N AOC Area 8 was visually inspected. Also, please send me the chron number.

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
Washington Closure Hanford  
521-5326

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**From:** Saueressig, Daniel G  
**Sent:** Wednesday, July 23, 2014 1:11 PM  
**To:** Allen, Mark E  
**Subject:** VISUAL INSPECTION OF 100-N AOC AREA 8

Mark, I went out to 100-N on June 24 and inspected AOC Area 8 and took photographs (attached). I didn't see any stains or anomalies, the area looked good. Area 8 is a large area (I also included an aerial photograph with Area 8 overlaid) that's why there are some many photographs. Give me a call if you have any questions.

Thanks,

Dan Saueressig  
FR Environmental Project Lead  
Washington Closure Hanford  
521-5326



Visual Inspection  
Photographs ...



N\_Area\_AOC\_8c.p  
df (2 MB)

# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

Photo 1. Southeast Corner of AOC Area 8 Road (facing west)



Photo 2. Southeast Corner of AOC Area 8 (facing north)



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

Photo 3. Eastern Portion of AOC Area 8 (facing west)



Photo 4. Eastern Portion of AOC Area 8 (facing west)



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

**Photo 5. Central Portion of AOC Area 8 (facing west)**



**Photo 6. Eastern Portion of AOC Area 8 (facing north)**



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

Photo 7. South Central Portion of AOC Area 8 (facing west)



Photo 8. Northwest Portion of AOC Area 8 (facing west)



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

Photo 9. North Central Portion of AOC Area 8 (facing north)



Photo 10. Central Portion of AOC Area 8 (facing south)



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

**Photo 11. Western Portion of AOC Area 8 (facing south)**



**Photo 12. Southwest Corner of AOC Area 8 (facing east)**



**Visual Inspection Photographs of 100-N AOC Area 8**  
June 24, 2014

**Photo 13. Eastern Portion of AOC Area 8 (facing southwest)**



**Photo 14. Eastern Portion of AOC Area 8 (facing north)**



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

Photo 15. Eastern Portion of AOC Area 8 (facing north)



Photo 16. Southwestern Portion of AOC Area 8 (facing north)



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

**Photo 17. Southwestern Portion of AOC Area 8 (facing north)**



**Photo 18. Southwestern Portion of AOC Area 8 (facing west)**



# Visual Inspection Photographs of 100-N AOC Area 8

June 24, 2014

Photo 19. Northeastern Portion of AOC Area 8 (facing south)



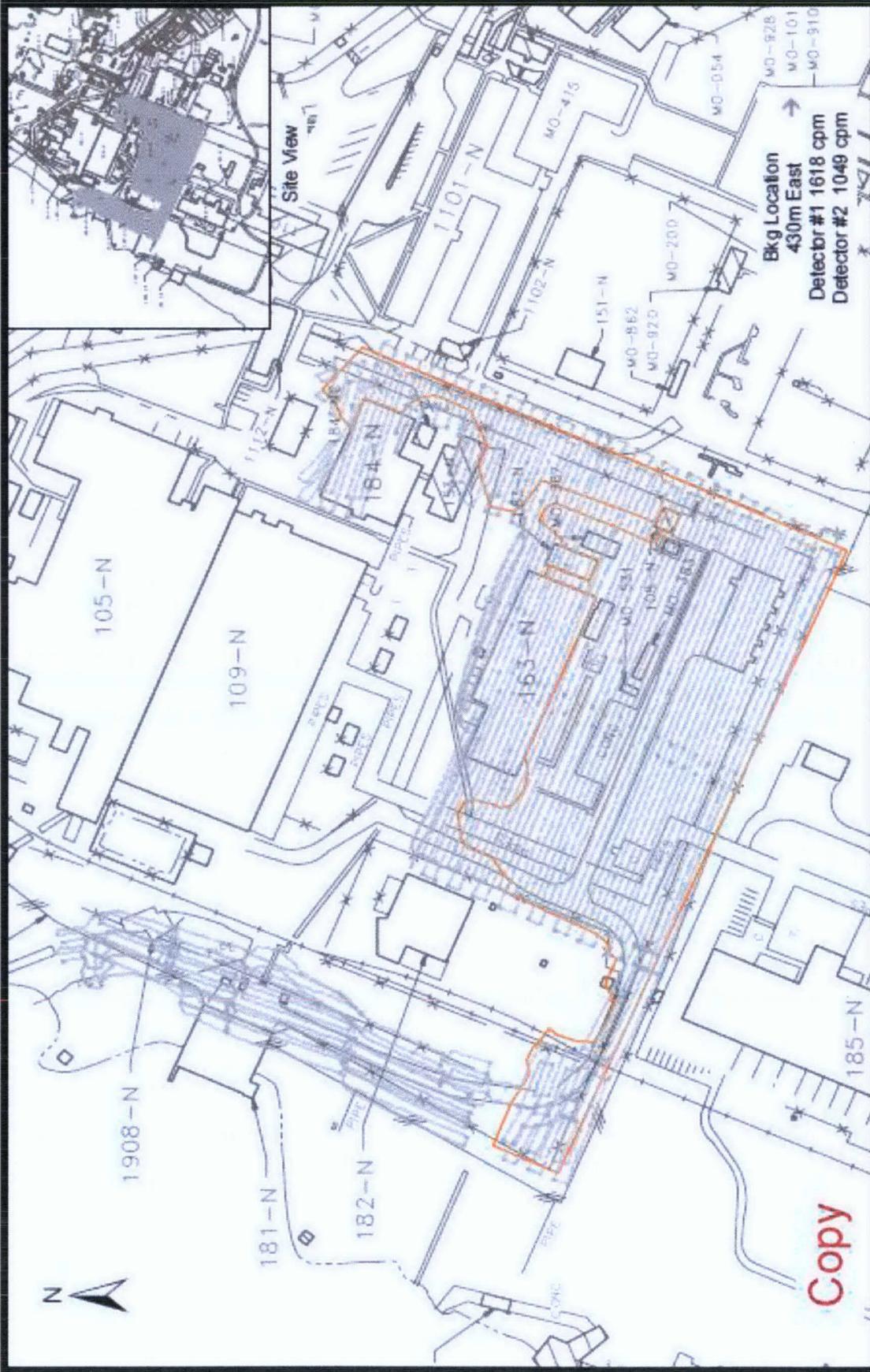
Photo 20. North Central Portion of AOC Area 8 (facing west)





**Attachment 4**

Global Positioning Environmental Radiological Surveyor (GPERS) Survey  
of AOC Area 8



**Legend**

NET CPM	<1.5	x	bkg
	1.5x	bkg	- 5000
	5000	-	10000
	10000	-	25000
	25000	-	25000

**Summary Statistics**

Coverage File: N199\_A.B  
 Number of Data Pnts: 20,931  
 Type of Survey: gamma  
 Max GCPM: 2368  
 Avg Bkg CPM: 1333  
 Survey Date: 7/18/2014  
 Area Surveyed: 43,650 m<sup>2</sup>  
 Project File: ESRFRM140068  
 Pdf File: ESRFRM140068\_2C

**100N D4**

**AOC Area 8 South of Reactor**

**GPERS Radiological Survey**

**Gamma Track Map**

**Bkg Location**  
 430m East  
 Detector #1 1618 cpm  
 Detector #2 1049 cpm

0 25 50 75 100 Meters

**EBERLINE SERVICES**

Survey Map Prepared By Bruce Coomer, ES