



**OFFICE OF RIVER PROTECTION**

P.O. Box 450, MSIN H6-60  
Richland, Washington 99352

**JAN 24 2019**

19-ECD-0002  
REISSUE

Ms. Alexandra K. Smith, Program Manager  
Nuclear Waste Program  
Washington State  
Department of Ecology  
3100 Port of Benton Blvd.  
Richland, Washington 99354

Ms. Smith:

**REISSUE - SUBMITTAL OF THE HANFORD FACILITY DANGEROUS WASTE PERMIT APPLICATION PART A FORM FOR THE DOUBLE-SHELL TANK SYSTEM/204-AR WASTE UNLOADING STATION, REVISION 6**

The purpose of this reissue is to include a signed document in Attachment, page 9. The U.S. Department of Energy, Office of River Protection and Washington River Protection Solutions LLC submit the Double-Shell Tank System Dangerous Waste Permit Application Part A Form, pursuant to WAC 173-303-805(7)(a)(iii).

The revised Part A Form reflects agreements during the Rev. 9 workshops and changes required in support of the Test Bed Initiative.

If you have any questions, please contact Bryan R. Trimberger, Environmental Compliance Division, (509) 376-2674, or Jessica A. Joyner, Environmental Protection, Washington River Protection Solutions LLC, (509) 376-7533.

A handwritten signature in black ink, appearing to read "John R. Eschenberg".

John R. Eschenberg,  
President and Project Manager  
Washington River Protection Solutions LLC

A handwritten signature in black ink, appearing to read "Brian T. Vance".

Brian T. Vance, Manager  
Office of River Protection

ECD:BRT

Attachment

cc: See page 2

Ms. Alexandra K. Smith  
19-ECD-0002  
REISSUE

-2-

JAN 24 2019

cc w/attach:

J. Cantu, Ecology  
A.S. Carlson, Ecology  
S.S. Lowe, Ecology  
J.J. Lyon, Ecology  
D. Einan, EPA  
L.E. Borneman, WRPS  
J.T. Hartley, WRPS  
J.A. Joyner, WRPS  
D. Rowland, YN  
Administrative Record  
Environmental Portal  
WRPS Correspondence

cc w/o attach:

M. Johnson, CTUIR  
S.L. Dahl, Ecology  
J. Bell, NPT (Acting)  
G.P. Bohnee, NPT  
K. Niles, Oregon Energy  
R. Buck, Wanapum

**Attachment**  
**19-ECD-0002 REISSUE**  
**(24 Pages Excluding Cover Sheet)**

**HANFORD FACILITY DANGEROUS WASTE PERMIT  
APPLICATION PART A FORM FOR THE DOUBLE-SHELL TANK  
SYSTEM/204-AR WASTE UNLOADING STATION, REVISION 6**



WASHINGTON STATE  
DEPARTMENT OF  
E C O L O G Y

**Dangerous Waste Permit Application  
Part A Form**

Date Received			Reviewed by:					Date:							
Month	Day	Year	Approved by:					Date:							

**I. This form is submitted to: (place an "X" in the appropriate box)**

<input checked="" type="checkbox"/>	Request modification to a final status permit (commonly called a "Part B" permit)
<input type="checkbox"/>	Request a change under interim status
<input type="checkbox"/>	Apply for a final status permit. This includes the application for the initial final status permit for a site or for a permit renewal (i.e., a new permit to replace an expiring permit).
<input type="checkbox"/>	Establish interim status because of the wastes newly regulated on: _____ (Date)
List waste codes:	

**II. EPA/State ID Number**

W	A	7	8	9	0	0	0	8	9	6	7
---	---	---	---	---	---	---	---	---	---	---	---

**III. Name of Facility**

U.S. Department of Energy – Hanford Facility

**IV. Facility Location (Physical address not P.O. Box or Route Number)**

**A. Street**

Refer to Permit Attachment 2, Hanford Facility Permit Legal Description

<b>City or Town</b>	<b>State</b>	<b>ZIP Code</b>
Near Richland	WA	

<b>County Code</b>	<b>County Name</b>
0 0 5	Benton

<b>B. Land Type</b>	<b>C. Geographic Location</b>		<b>D. Facility Existence Date</b>		
	Latitude (degrees, mins, secs)	Longitude (degrees, mins, secs)	Month	Day	Year
F	Refer to TOPO Map (Section XV)		1	1	1 9 8 0

**V. Facility Mailing Address**

<b>Street or P.O. Box</b>		
P.O. Box 450		
<b>City or Town</b>	<b>State</b>	<b>ZIP Code</b>
Richland	WA	99352

<b>VI. Facility contact (Person to be contacted regarding waste activities at facility)</b>													
<b>Name (last)</b>						<b>(first)</b>							
Vance						Brian							
<b>Job Title</b>						<b>Phone Number</b>							
Manager						(509) 372-2315							
<b>Contact Address</b>													
<b>Street or P.O. Box</b>													
P.O. Box 450													
<b>City or Town</b>						<b>State</b>			<b>ZIP Code</b>				
Richland						WA			99352				
<b>VII. Facility Operator Information</b>													
<b>A. Name</b>										<b>Phone Number</b>			
U.S. Department of Energy Owner/Operator Washington River Protection Solutions, LLC Co-Operator for DST System										(509) 372-2315 (509) 376-2574			
<b>Street or P.O. Box</b>													
P.O. Box 450 P.O. Box 850													
<b>City or Town</b>						<b>State</b>			<b>ZIP Code</b>				
Richland						WA			99352				
<b>B. Owner Type</b>		F											
<b>C. Does the name in VIII.A reflect a proposed change in owner?</b>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
If yes, provide the scheduled date for the change:						<b>Month</b>		<b>Day</b>			<b>Year</b>		
<b>D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C.</b>										<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>VIII. Facility Owner Information</b>													
<b>A. Name</b>						<b>Phone Number (area code and number)</b>							
U.S. Department of Energy Owner/Operator						(509) 372-2315							
<b>Street or P.O. Box</b>													
P.O. Box 450													
<b>City or Town</b>						<b>State</b>			<b>ZIP Code</b>				
Richland						WA			99352				
<b>B. Operator Type</b>		F											
<b>C. Does the name in VII.A reflect a proposed change in operator?</b>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
If yes, provide the scheduled date for the change:						<b>Month</b>		<b>Day</b>			<b>Year</b>		
<b>IX. NAICS Codes (5/6 digit codes)</b>													
<b>A. First</b>						<b>B. Second</b>							
5	6	2	2	1	1	5	6	2	9	1	0	Waste Treatment & Disposal	Remediation Services
<b>C. Third</b>						<b>D. Fourth</b>							
5	4	1	7	1	2	9	2	4	1	1	0	Research & Development in the Physical, Engineering and Life Sciences	Administration of Air & Water Resource & Solid Waste Management Programs

X. Other Environmental Permits															
A. Permit Type			B. Permit Number												C. Description
	E		A	O	P	0	0	-	0	5	-	0	0	6	Title V Air Operating Permit. Incorporation of current non-radiological Notice of Construction permits and FF-01 radiological licenses into the AOP may be delayed up to 2 years.
	E		S	T	0	0	0	4	5	1	1				WAC 173-216, State Waste Discharge Permit Program, Sitewide Permit for Miscellaneous Streams

**XI. Nature of Business (provide a brief description that includes both dangerous waste and non-dangerous waste areas and activities)**

The Double-Shell Tank (DST) System contains 28-DSTs, 204-AR Waste Unloading Station (Catch Tank 204-AR-TK-1), Catch Tank 241-AZ-151, and ancillary equipment. Ancillary equipment includes, but is not limited to the Cross Site Transfer System, piping, fittings, flanges, valves, and pumps, that are used to distribute, meter, or control the flow of dangerous waste. The 28-DSTs are organized into 6 tank farms; five tank farms (AN, AP, AW, AY and AZ) are in Hanford’s 200 East Area, and SY Tank Farm is in Hanford’s 200 West Area. The cross-site transfer systems used to move waste from the 200 West Area (via SY Tank Farm) to 200 East Area (via AN Tank Farm) where the treatment facilities are located. The first DST began operations in April 1971, the last tanks began operations in October 1986. Table A.1, Tank Specifications provides the process design capacity, estimated annual quantity of waste for tank storage and treatment at any one time, location, and year of operation for each tank.

**S02. Tank Storage**

The total process design capacity for the DST System tank storage is 32,746,700 gallons based on the structural design capacity for the 30 tanks (28-DSTs, Catch Tanks 204-AR-TK-1 and 241-AZ-151). The total estimated annual quantity of waste for tank storage at any one time is 493,291,400 pounds for the 30 tanks; the basis is provided below (also refer to Table A.1).

**DST Storage.** The DSTs store and treat mixed waste produced at the Hanford Site. Historically the DSTs received mixed waste generated during the operation of chemical processing of nuclear facilities, such as the Plutonium-Uranium Extraction (PUREX) Plant, B Plant, T-Plant, the Plutonium Finishing Plant. The primary tank shell stores the waste and a secondary shell provides secondary containment. The DSTs receive and store mixed waste from the 242-A Evaporator and 222-S Laboratory through buried double-encased transfer lines to designated DSTs; additionally the DSTs receive mixed waste from SST System and 222-S Laboratory via tanker trucks or other containers. Waste is also transferred between the DSTs through buried double-encased transfer lines or above ground temporary waste transfer lines. The DSTs also receive mixed waste from the Single-Shell Tank (SST) System via temporary waste transfer lines.

The process design capacity for DST storage is 32,733,200 gallons (maximum fill height in inches x 2,750 gallons/inch) based on the structural design capacity of the 28 DSTs; the estimated annual quantity of waste is 493,200,000 pounds based on the tank structural design capacity level (maximum fill height in inches) x 2,750 gallons/inch x 8.34 pounds/gallon x estimated weight of 1.8 SpG for the tank waste.

- AN Tank Farm: 7 tanks (241-AN-101 through 241-AN-107)
- AP Tank Farm: 8 tanks (241-AP101 through 241-AP-108)
- AW Tank Farm: 6 tanks (241-AW-101 through 241-AW-106)
- AY Tank Farm: 2 tanks (241-AY-101 and 241-AY-102)
- AZ Tank Farm: 2 tanks (241-AZ-101 and 241-AZ-102)
- SY Tank Farm: 3 tanks (241-SY-101 through 241-SY-103)

**Catch Tank 204-AR-TK-1 Storage.** The inactive 204-AR Waste Unloading Station is located in Hanford’s 200 East Area and contains one dangerous waste management unit (DWMU), Catch Tank 204-AR-TK-1 (see Figure A.9). The 204-AR Waste Unloading Station began operations in February 1982, as part of the DST System that was used to unload mixed waste from various Hanford Site operations for treatment prior storage in the DST System. Catch Tank 204-AR-TK-1, was deactivated in 2010 by draining, flushing, and isolating the catch tank. Catch Tank 204-AR-TK-1 contains approximately 960 gallons of waste. The design capacity of Catch Tank 204-AR-TK-1 is 1,500 gallons, the estimated annual quantity of waste is 8,000 pounds based on the waste volume in Catch Tank 204-AR-TK-1 (960 gallons) x 8.34 pounds/gallon x estimated weight of 1 SpG for the waste.

**XI. Nature of Business (provide a brief description that includes both dangerous waste and non-dangerous waste areas and activities)**

**Catch Tank 241-AZ-151 Storage.** Catch Tank 241-AZ-151 began operations in 1973, and is located in the AZ Tank Farm of Hanford's 200 East Area (see Figure A.8). Catch Tank 241-AZ-151 collected condensate from the ventilation system for AY/AZ Tank Farms, AZ tank farm leak detection pits, 241-AZ-801A instrumentation building floor drain, 241-AZ-702 ventilation system, and 241-AZ-152 sluicing transfer box floor drain, precipitation, and runoff. Catch Tank 241-AZ-151 was removed from service on October 24, 2005 by welding a cap on the fill pipe. Catch Tank 241-AZ-151 was stabilized, physically isolated, and monitored as part of TPA Milestone M-48-07 completion. The design capacity of Catch Tank 241-AZ-151 is 12,000 gallons; the estimated annual quantity of waste is 83,400 pounds based on estimated water intrusion (10,000 gallons) x 8.34 pounds/gallon x estimated weight of 1.0 SpG for the waste.

T01. Tank Treatment

Tank treatment in the 28-DSTs includes deactivation (DEACT), to remove the characteristics of mixed waste due to ignitability (D001), corrosivity (D002), and/or reactivity (D003); pH adjustment for corrosive waste that has a pH of less than or equal to 2; chemical additions to make the waste more amenable for storage in the DST system (e.g., addition of sodium nitrite, sodium nitrate, or sodium hydroxide for corrosion protection); filtration to remove suspended solids; and ion exchange to separate radionuclides.

The DST estimated annual quantity of waste for tank treatment at any one time is 493,200,000 pounds based on the tank structural design capacity level (maximum fill height in inches) x 2,750 gallons/inch x 8.34 pounds/gallon x estimated weight of 1.8 SpG for the tank waste in 28 DSTs.

NAICS Codes

NAICS Code 562211 applies to the DST System, the NAICS Codes listed in Section IX.B – IX.D apply to the Hanford Facility but not this unit.

Toxic Substance Control Act (TSCA) Risk Based Disposal Application

On January 15, 2002, DOE-ORP transmitted the *Toxic Substance Control Act (TSCA) Risk Based Disposal Application of the Double-Shell Tank (DST) System for 2001* to the U.S. Environmental Protection Agency, Region 10. The application was submitted to complete Item #1 of the August 31, 2000, *Framework Agreement for the Management of Polychlorinated Biphenyls (PCB) in Hanford Tank Waste with Respect to the DST System*.

**EXAMPLE FOR COMPLETING ITEMS XII and XIII (shown in lines numbered X-1, X-2, and X-3 below): A facility has two storage tanks that hold 1200 gallons and 400 gallons respectively. There is also treatment in tanks at 20 gallons/hr. Finally, a one-quarter acre area that is two meters deep will undergo *in situ* vitrification.**

Section XII. Process Codes and Design Capacities								Section XIII. Other Process Codes								
Line Number	A. Process Codes			B. Process Design Capacity		C. Process Total Number of Units	Line Number	A. Process Codes (enter code)			B. Process Design Capacity		C. Process Total Number of Units	D. Process Description		
	1	2	3	1. Amount	2. Unit of Measure			1.	2.	3.	1. Amount	2. Unit of Measure				
X	1	S	0	2	1,600	G	002	X	1	T	0	4	700	C	001	In situ vitrification
X	2	T	0	3	20	E	001									
X	3	T	0	4	700	C	001									
	1	S	0	2	32,746,700	G	30		1							
	2	T	0	1	32,733,200	G	28		2							
	3								3							
	4								4							
	5								5							
	6								6							
	7								7							
	8								8							
	9								9							
1	0							1	0							
1	1							1	1							
1	2							1	2							
1	3							1	3							
1	4							1	4							
1	5							1	5							
1	6							1	6							
1	7							1	7							
1	8							1	8							
1	9							1	9							
2	0							2	0							
2	1							2	1							
2	2							2	2							
2	3							2	3							
2	4							2	4							
2	5							2	5							

**XIV. Description of Dangerous Wastes**

**Example for completing this section:** A facility will receive three non-listed wastes, then store and treat them on-site. Two wastes are corrosive only, with the facility receiving and storing the wastes in containers. There will be about 200 pounds per year of each of these two wastes, which will be neutralized in a tank. The other waste is corrosive and ignitable and will be neutralized then blended into hazardous waste fuel. There will be about 100 pounds per year of that waste, which will be received in bulk and put into tanks.

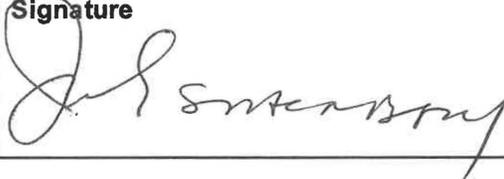
Line Number	A. Dangerous Waste No.	B. Estimated Annual Quantity of Waste	C. Unit of Measure	D. Processes									
				(1) Process Codes					(2) Process Description [If a code is not entered in D(1)]				
X 1	D 0 0 2	400	P	S 0 1	T 0 1								
X 2	D 0 0 1	100	P	S 0 2	T 0 1								
X 3	D 0 0 2												<b>Included with above</b>
1.	D 0 0 1	493,200,000	P	S 0 2	T 0 1								DST Storage & Treatment Includes Debris
2.	D 0 0 2												Included with above
3.	D 0 0 3												Included with above
4.	D 0 0 4												Included with above
5.	D 0 0 5												Included with above
6.	D 0 0 6												Included with above
7.	D 0 0 7												Included with above
8.	D 0 0 8												Included with above
9.	D 0 0 9												Included with above
10.	D 0 1 0												Included with above
11.	D 0 1 1												Included with above
12.	D 0 1 8												Included with above
13.	D 0 1 9												Included with above
14.	D 0 2 2												Included with above
15.	D 0 2 8												Included with above
16.	D 0 2 9												Included with above
17.	D 0 3 0												Included with above
18.	D 0 3 3												Included with above
19.	D 0 3 4												Included with above
20.	D 0 3 5												Included with above
21.	D 0 3 6												Included with above
22.	D 0 3 8												Included with above
23.	D 0 3 9												Included with above
24.	D 0 4 0												Included with above
25.	D 0 4 1												Included with above

EPA/State ID Number	W	A	7	8	9	0	0	0	8	9	6	7
---------------------	---	---	---	---	---	---	---	---	---	---	---	---

Continuation of Section XIV. Description of Dangerous Waste

Line Number	A. Dangerous Waste No. (enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Process											
							(1) Process Codes (enter)					(2) Process Description\ [If a code is not entered in D(1)]						
26.	D	0	4	3														Included with above
27.	F	0	0	1														Included with above
28.	F	0	0	2														Included with above
29.	F	0	0	3														Included with above
30.	F	0	0	4														Included with above
31.	F	0	0	5														Included with above
32.	W	P	0	1														Included with above
33.	W	P	0	2														Included with above
34.	W	T	0	1														Included with above
35.	W	T	0	2														Included with above
36.	D	0	0	1	91,400	P	S	0	2									Catch Tank Storage
37.	D	0	0	2														Included with above
38.	D	0	0	3														Included with above
39.	D	0	0	4														Included with above
40.	D	0	0	5														Included with above
41.	D	0	0	6														Included with above
42.	D	0	0	7														Included with above
43.	D	0	0	8														Included with above
44.	D	0	0	9														Included with above
45.	D	0	1	0														Included with above
46.	D	0	1	1														Included with above
47.	D	0	1	8														Included with above
48.	D	0	1	9														Included with above
49.	D	0	2	2														Included with above
50.	D	0	2	8														Included with above
51.	D	0	2	9														Included with above
52.	D	0	3	0														Included with above
53.	D	0	3	3														Included with above
54.	D	0	3	4														Included with above
55.	D	0	3	5														Included with above
56.	D	0	3	6														Included with above
57.	D	0	3	8														Included with above
58.	D	0	3	9														Included with above
59.	D	0	4	0														Included with above



<p><b>XV. Map</b> Attach to this application a topographic map of the area extending to at least one (1) mile beyond property boundaries. The map must show the outline of the facility; the location of each of its existing and proposed intake and discharge structures; each of its dangerous waste treatment, storage, recycling, or disposal units; and each well where fluids are injected underground. Include all springs, rivers, and other surface water bodies in this map area, plus drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary. The instructions provide additional information on meeting these requirements.</p>		
<p><b>XVI. Facility Drawing</b> All existing facilities must include a scale drawing of the facility (refer to Instructions for more detail).</p>		
<p><b>XVII. Photographs</b> All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, recycling, and disposal areas; and sites of future storage, treatment, recycling, or disposal areas (refer to Instructions for more detail).</p>		
<p><b>XVIII. Certifications</b> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>		
<p><b>Operator</b> Name and Official Title Brian T. Vance, Manager U.S. Department of Energy Office of River Protection</p>	<p><b>Signature</b> </p>	<p><b>Date Signed</b> 1/24/19</p>
<p><b>Co-Operator</b> Name and Official Title John R. Eschenberg President and Project Manager Washington River Protection Solutions LLC</p>	<p><b>Signature</b> </p>	<p><b>Date Signed</b> 1/21/19</p>
<p><b>Co-Operator --</b> Address and Telephone Number P.O. Box 850 Richland, WA 99352 (509) 376-2574</p>		
<p><b>Facility-Property Owner</b> Name and Official Title Brian T. Vance, Manager U.S. Department of Energy Office of River Protection</p>	<p><b>Signature</b> </p>	<p><b>Date Signed</b> 1/24/19</p>

**Comments**

Table A.1. Tank Specifications

Tank Number	Location	Operation Date	Structural Design Capacity 1 (gallons)	Specific Gravity (SpG) of Tank Waste	Estimated Annual Quantity of Waste <sup>2</sup> , (pounds)
241-AN-101	200 East	9/1981	1,160,500	1.8	17,500,000
241-AN-102			1,160,500		17,500,000
241-AN-103			1,160,500		17,500,000
241-AN-104			1,160,500		17,500,000
241-AN-105			1,160,500		17,500,000
241-AN-106			1,160,500		17,500,000
241-AN-107			1,160,500		17,500,000
241-AP-101	200 East	10/1986	1,261,900	1.8	19,000,000
241-AP-102			1,261,900		19,000,000
241-AP-103			1,261,900		19,000,000
241-AP-104			1,261,900		19,000,000
241-AP-105			1,261,900		19,000,000
241-AP-106			1,261,900		19,000,000
241-AP-107			1,261,900		19,000,000
241-AP-108			1,261,900		19,000,000
241-AW-101	200 East	8/1980	1,160,500	1.8	17,500,000
241-AW-102			1,160,500		17,500,000
241-AW-103			1,160,500		17,500,000
241-AW-104			1,160,500		17,500,000
241-AW-105			1,160,500		17,500,000
241-AW-106			1,160,500		17,500,000
241-SY-101	200 West	4/1977	1,160,500	1.8	17,500,000
241-SY-102			1,160,500		17,500,000
241-SY-103			1,160,500		17,500,000
241-AY-101	200 East	4/1971	1,017,500	1.8	15,300,000
241-AY-102		4/1976 <sup>3</sup>	1,017,500		15,300,000
241-AZ-101	200 East	11/1976	1,017,500	1.8	15,300,000
241-AZ-102			1,017,500		15,300,000
<b>DST Total</b>			<b>32,733,200</b>		<b>493,200,000</b>
Catch Tank 204-AR-TK-1	200 East	2/1982	1,500	1.0	8,000 <sup>4</sup>
Catch Tank 241-AZ-151	200 East	1973	12,000	1.0	83,400 <sup>5</sup>
<b>Catch Tank Total</b>			<b>13,500</b>		<b>91,400</b>
<b>TOTALS</b>			<b>32,746,700</b>		<b>493,291,400</b>

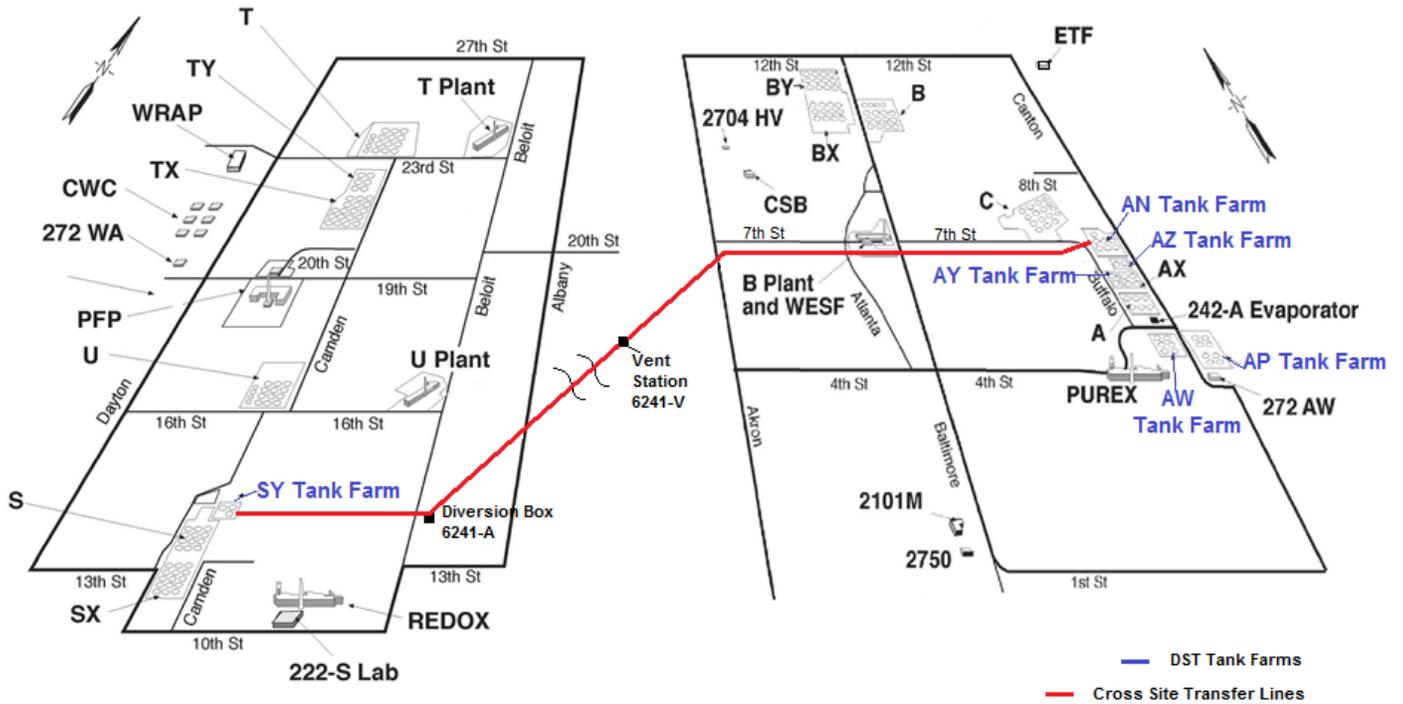
<sup>1</sup> Process design capacity for tank storage is based on the structural design capacity for the 30 DSTs. Structural design capacity (maximum fill height in inches) for the DSTs (excluding AP Farm) is in OSD-T-151-0007, *Operating Specifications for Double-Shell Storage Tanks*; AP Farm information is in RPP-CALC-33163, *Tank Waste Volume and Level Calculations in Dome Space for 241-AP Tank Farm up to 460 Inches*; Catch Tanks information is in RPP-RPT-29878, *Catch Tank Level Trend Assessment*, and H-2-68316, Sh. 1, *Structural Concrete Catch Tank Plans, Section & Details*.

<sup>2</sup> Estimated annual quantity of waste for tank storage at any one time is based on the design capacity of the 28 DSTs x 8.34 pounds/gallon x estimated weight of 1.8 SpG for the waste; and the estimated annual quantity of waste for the 2-catch tanks (refer to footnotes 4, and 5).

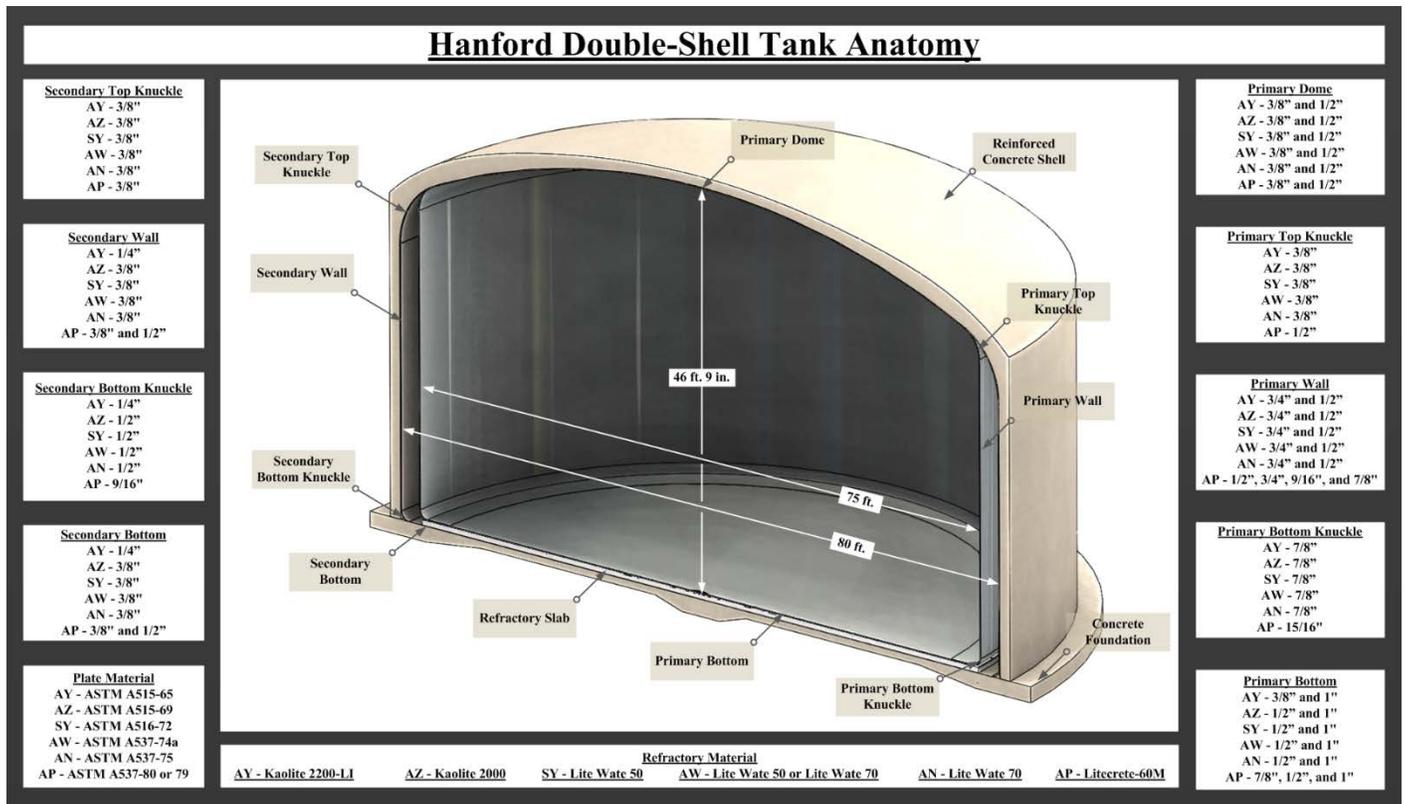
<sup>3</sup> Estimated operational date

<sup>4</sup> Estimated annual quantity of waste for 204-AR-TK-1 is based on the waste volume in the catch tank (960 gallons) x 8.34 pounds/gallon x estimated weight of 1.8 SpG for the waste.

<sup>5</sup> Estimated annual quantity of waste for Catch Tank 241-AZ-151 is based on estimated water intrusion (10,000 gallons) x 8.34 pounds/gallon x estimated weight of 1.0 SpG for the waste.



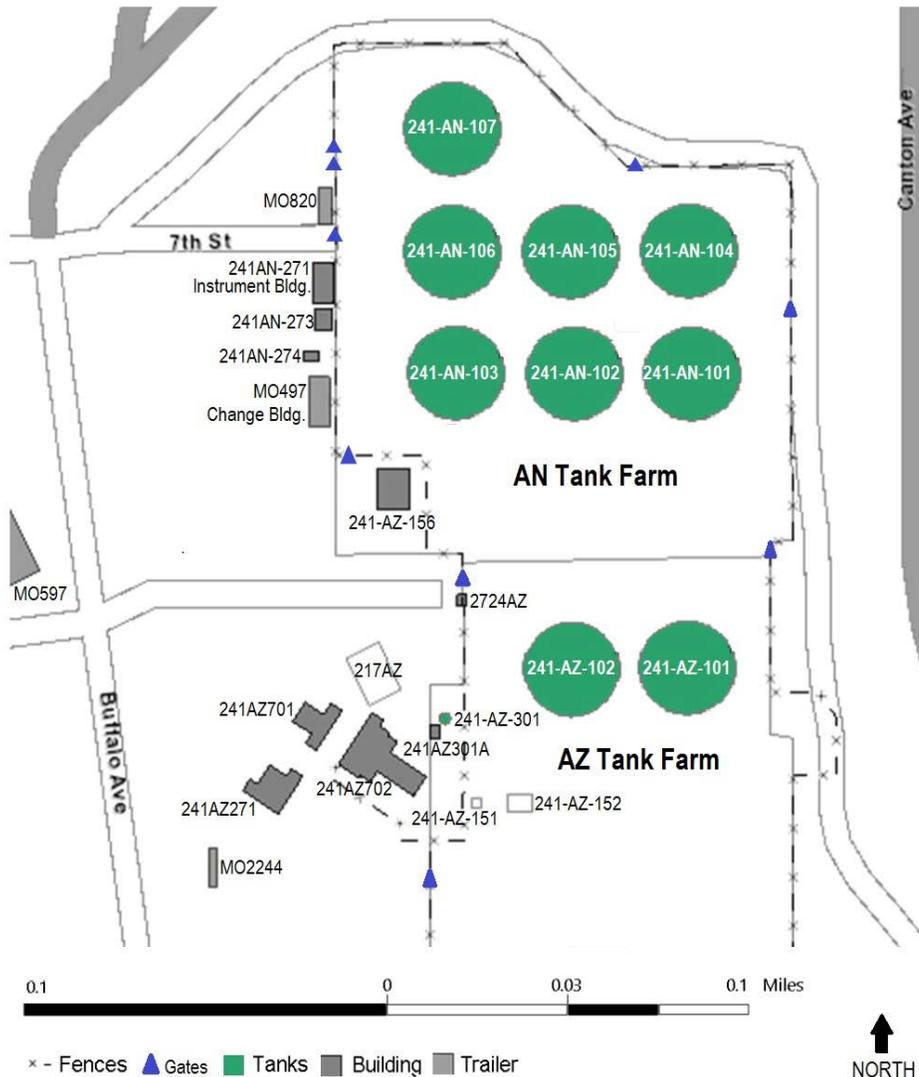
A.1. 200 Area Tank Farm Layout



A.2. DST Structure



Photo 6/2013



A.3. AN Tank Farm

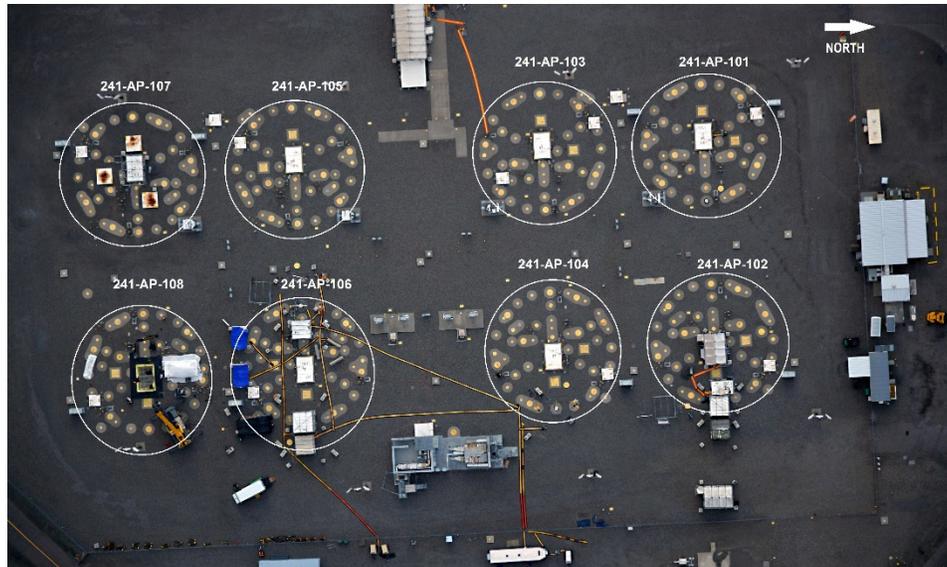
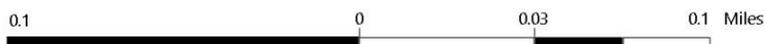
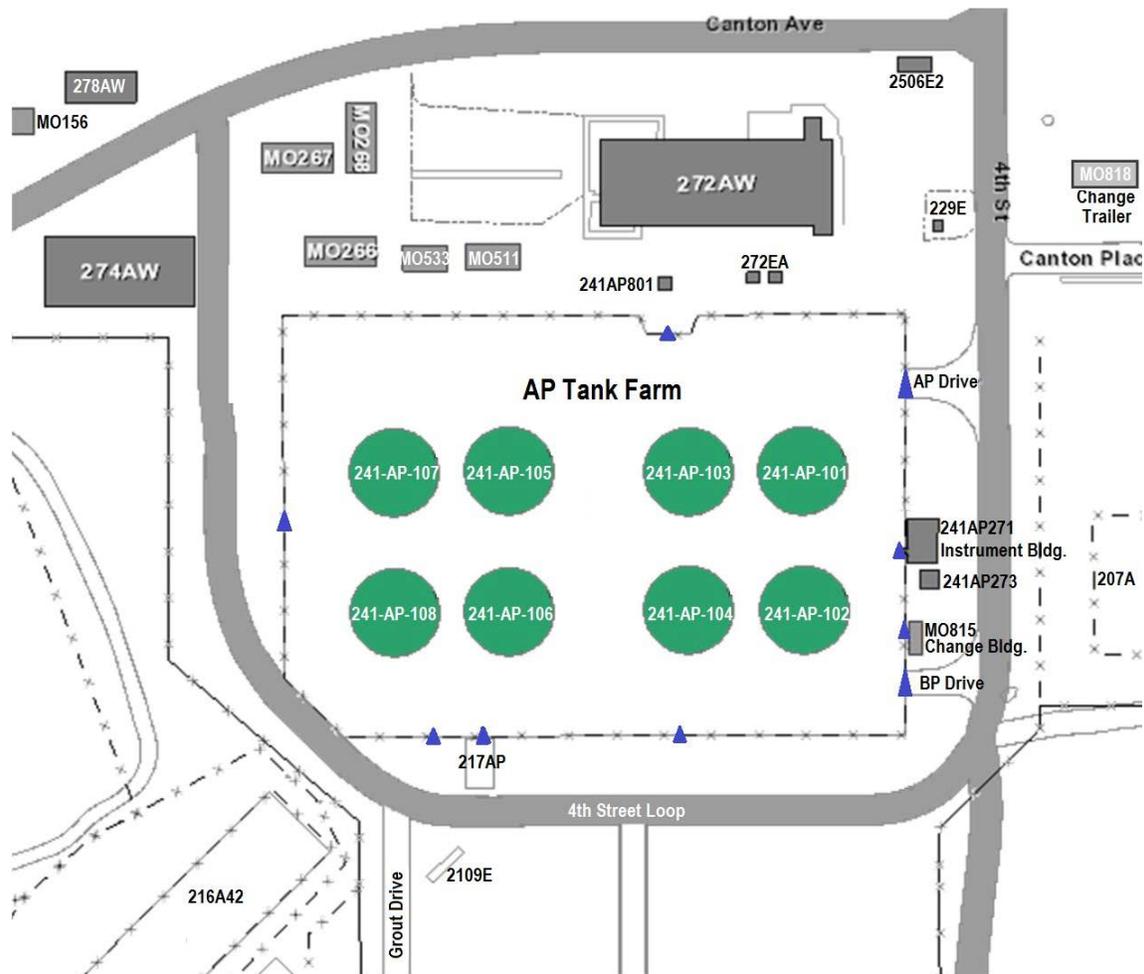


Photo 8/2014



× - Fences ▲ Gates ■ Tanks ■ Building ■ Trailer



A.4. AP Tank Farm

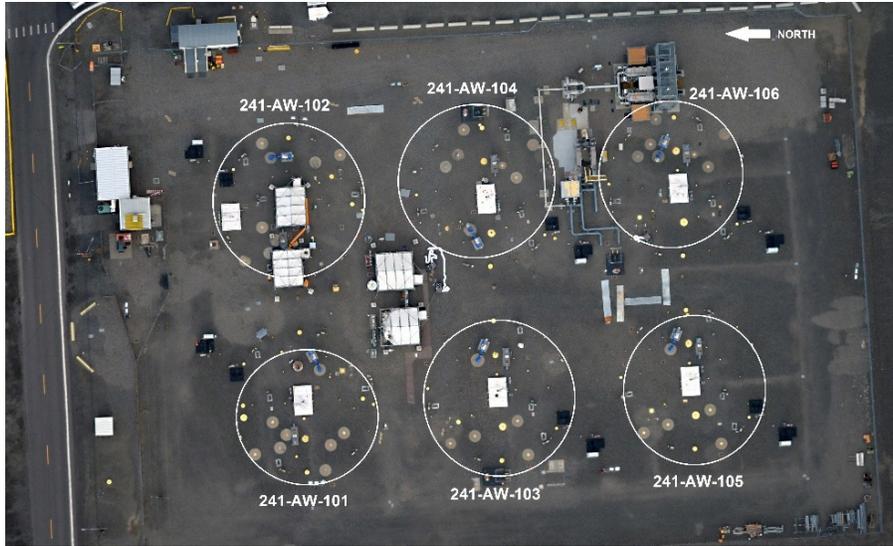
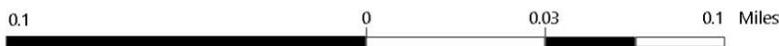
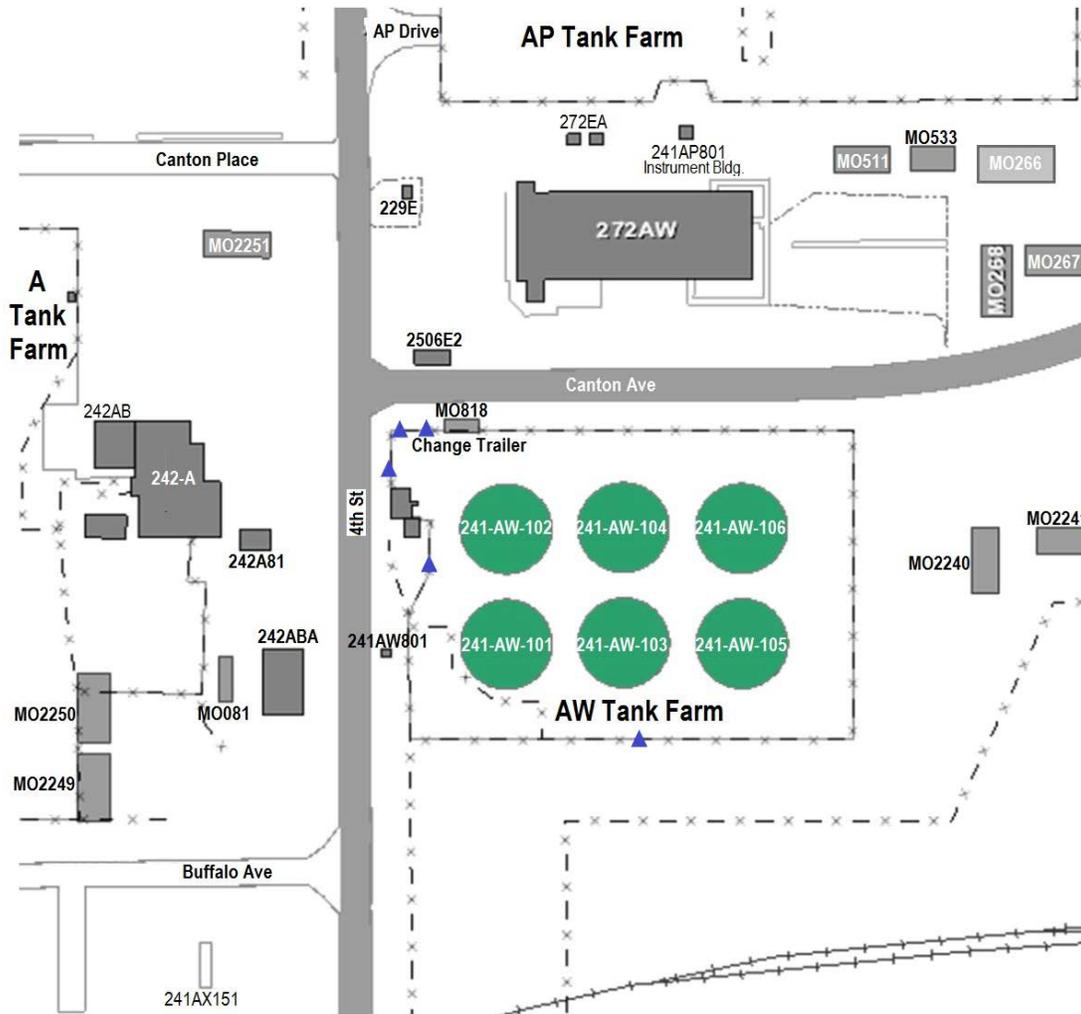


Photo 8/2014



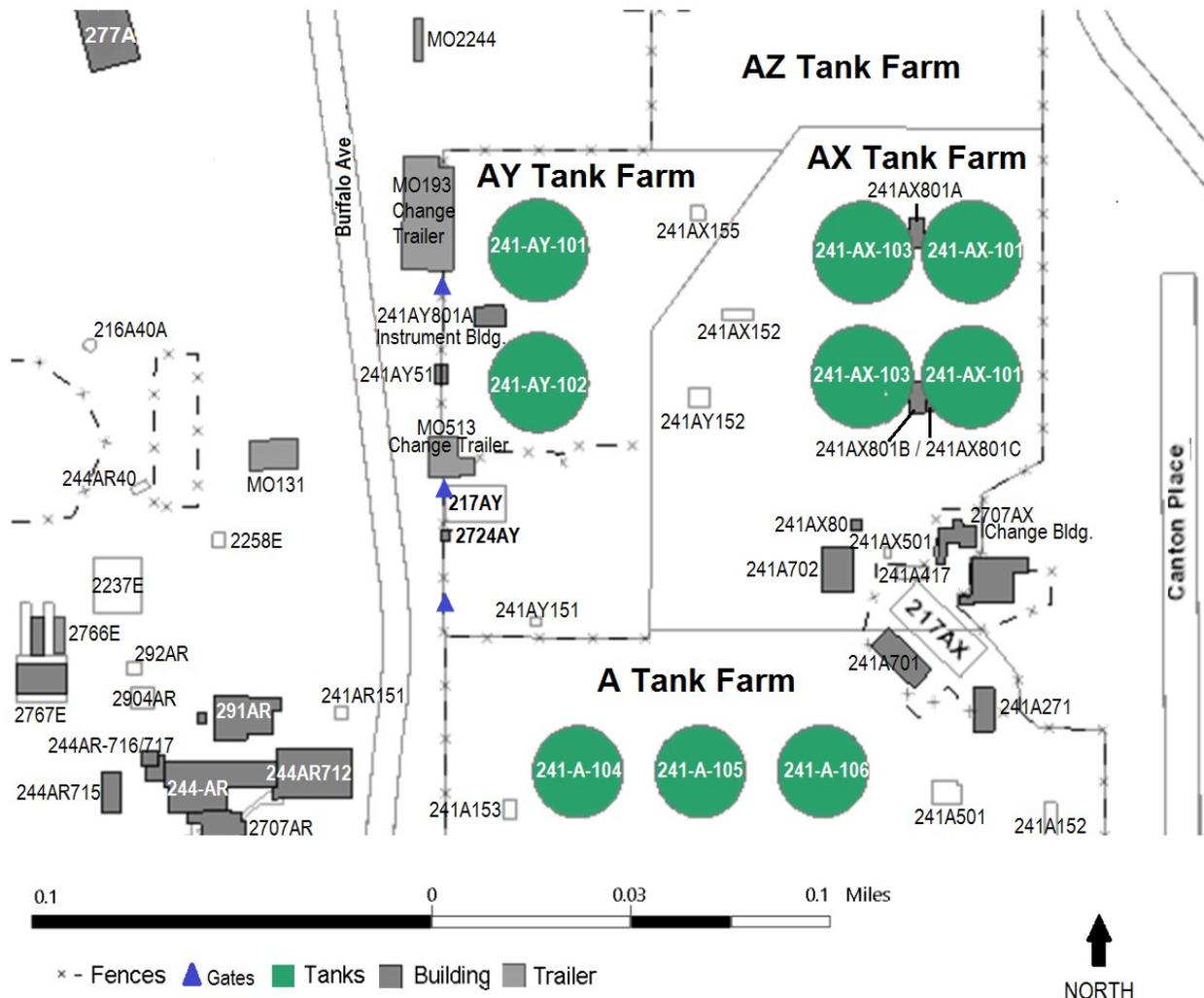
× - Fences ▲ Gates ■ Tanks ■ Building ■ Trailer



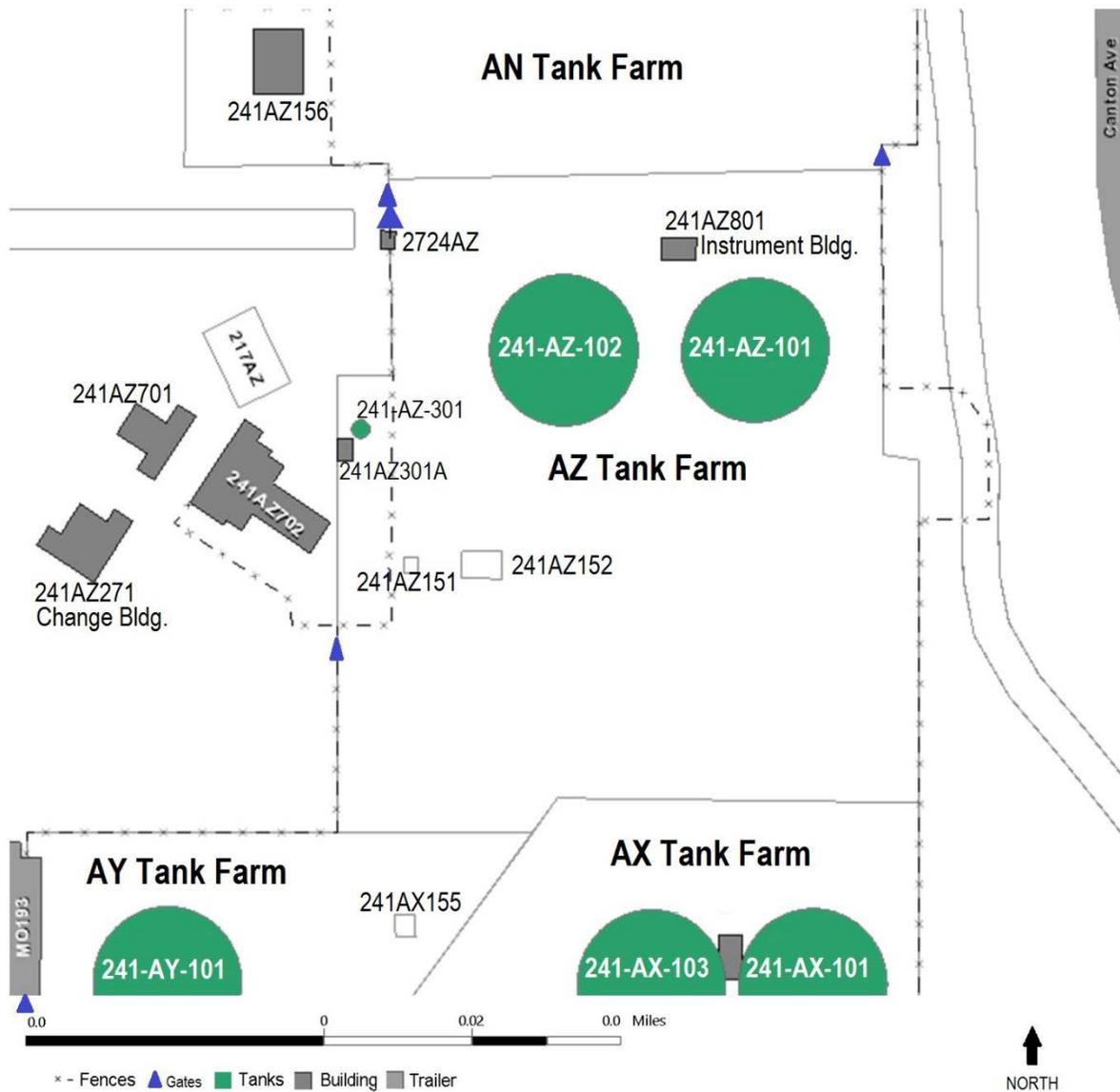
A5. AW Tank Farm



Photo 8/2014



A6. AY Tank Farm



A7. AZ Tank Farm

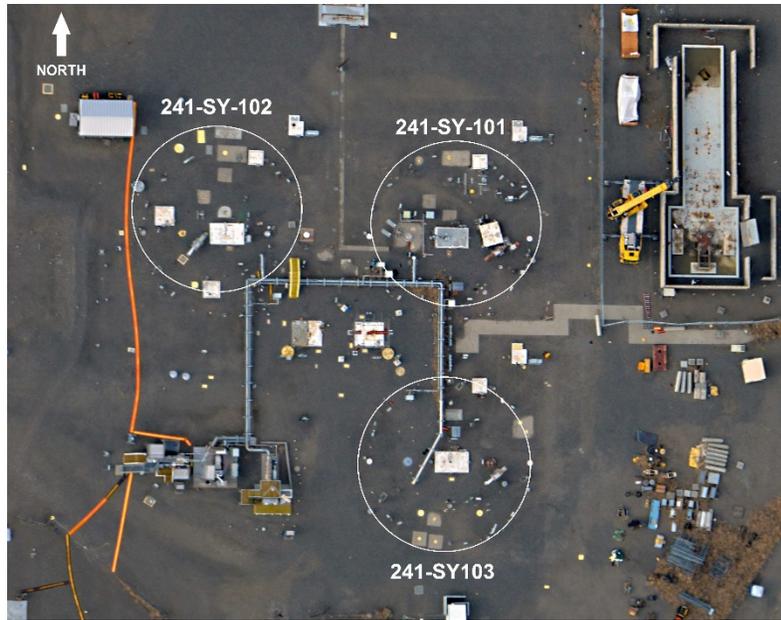
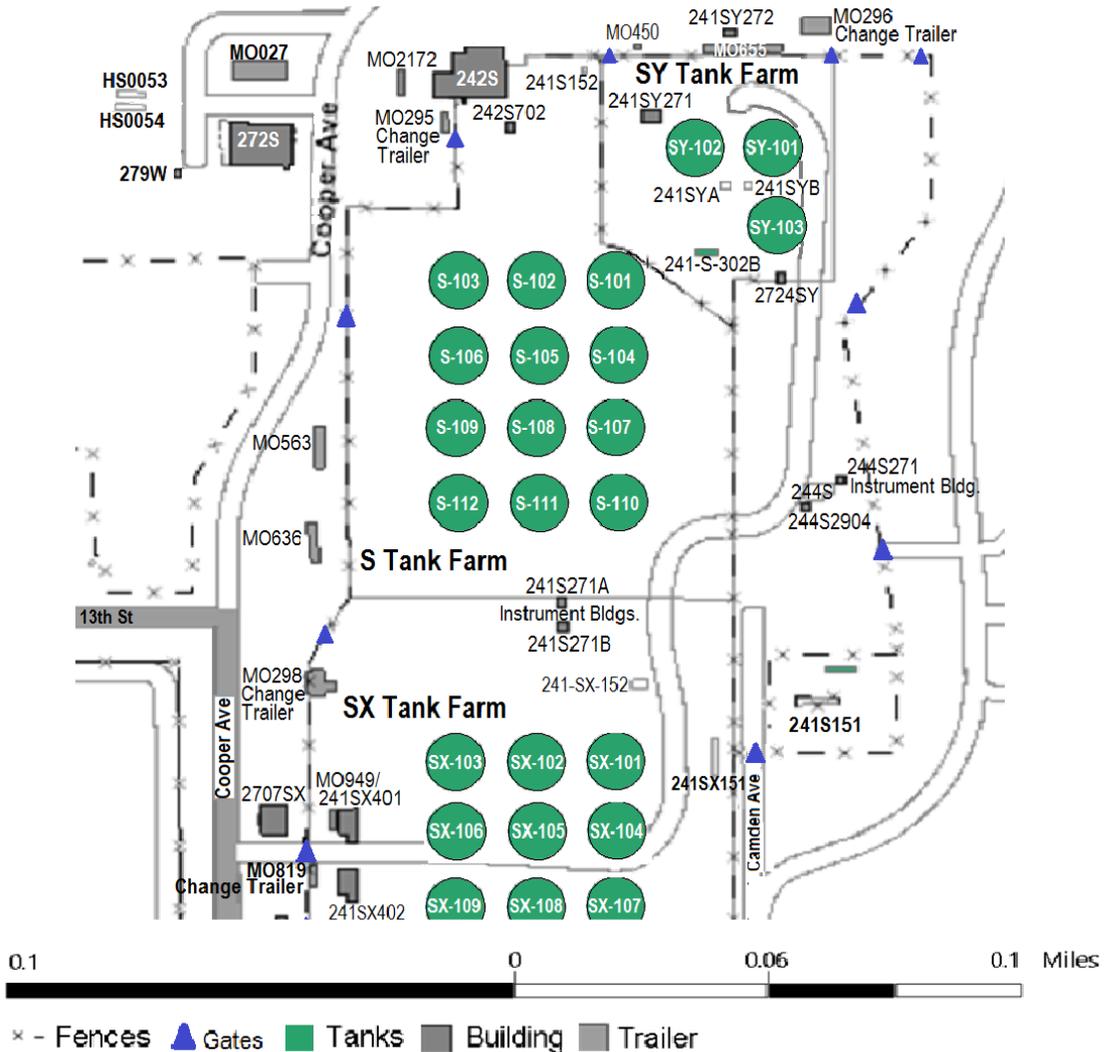


Photo 8/2014

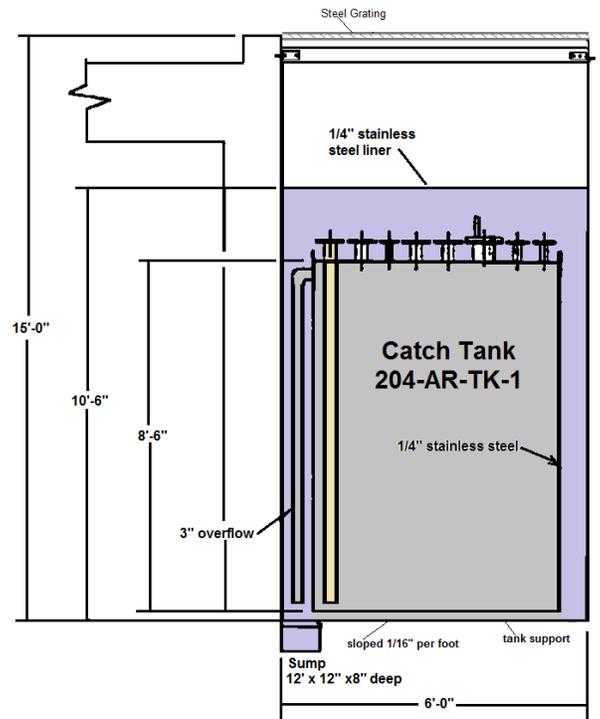
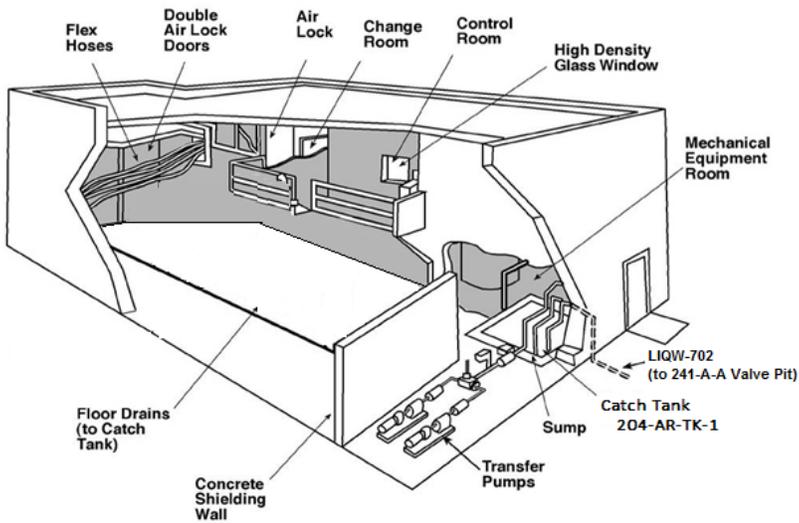
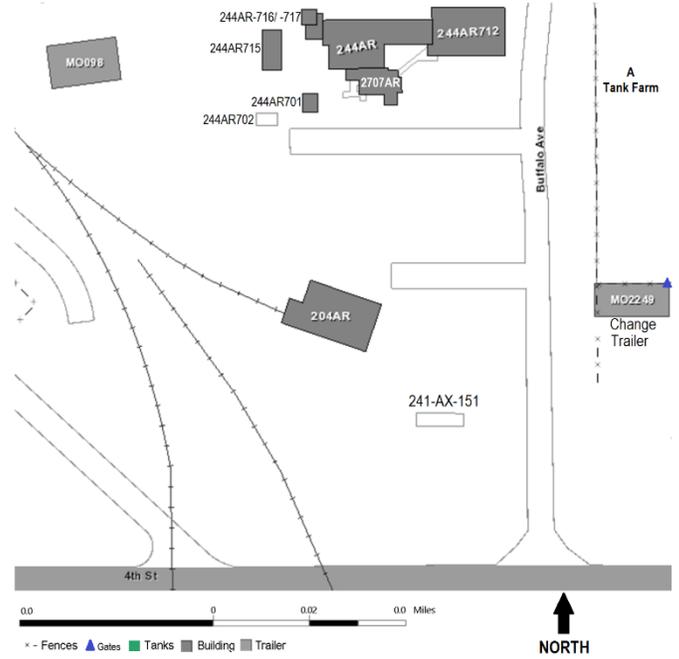


A8. SY Tank Farm



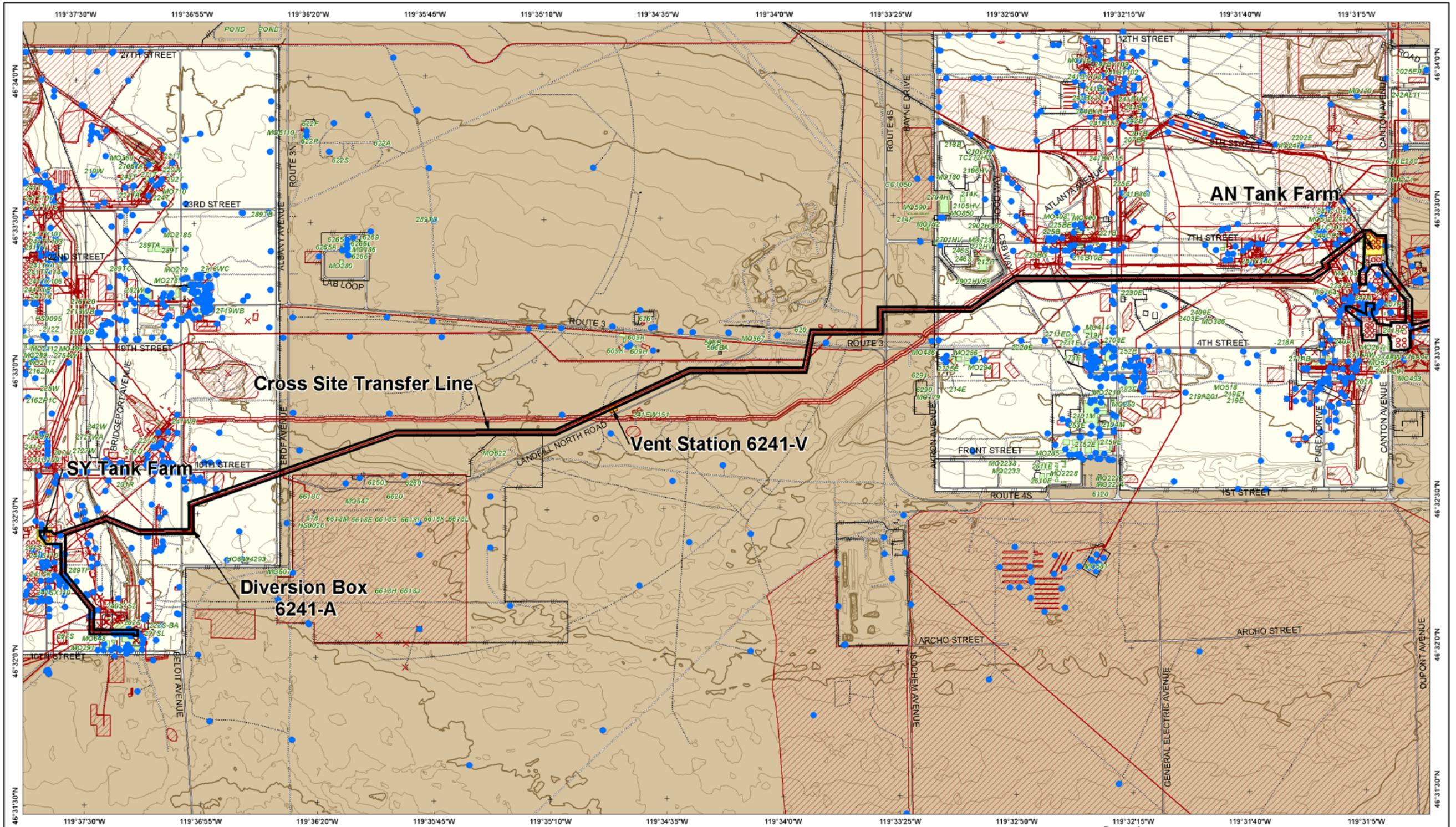
204-AR Waste Unloading Station

Photo 8/2014



A.9. Catch Tank 204-AR-TK-1 located in the 204-AR Waste Unloading Station

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The Hanford Site



Area Shown on Map

Double Shell Tank System

Prepared for: US DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE

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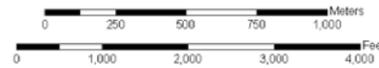
INTENDED USE: REFERENCE ONLY. Projection: Lambert Conformal Conic. Coordinate System: Washington State Plane, South Zone, Meters. Horizontal Datum: NAD83. Vertical Datum: NAAVD88. Topographic Data: 1996, Bechtel Hanford, Inc.



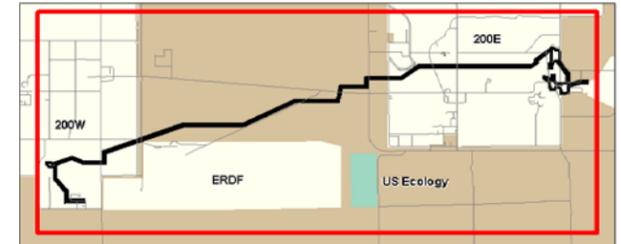
- TSD Unit Group Boundary
- Contours at 2 Meter Intervals
- Depression Contours at 2 Meter Intervals
- Wells
- DOE Operating Areas
- Hanford Facility

- SWMUs and Known Releases
- Linear SWMUs and Known Releases
- Spot SWMUs and Known Releases
- Buildings and Mobiles
- Structures

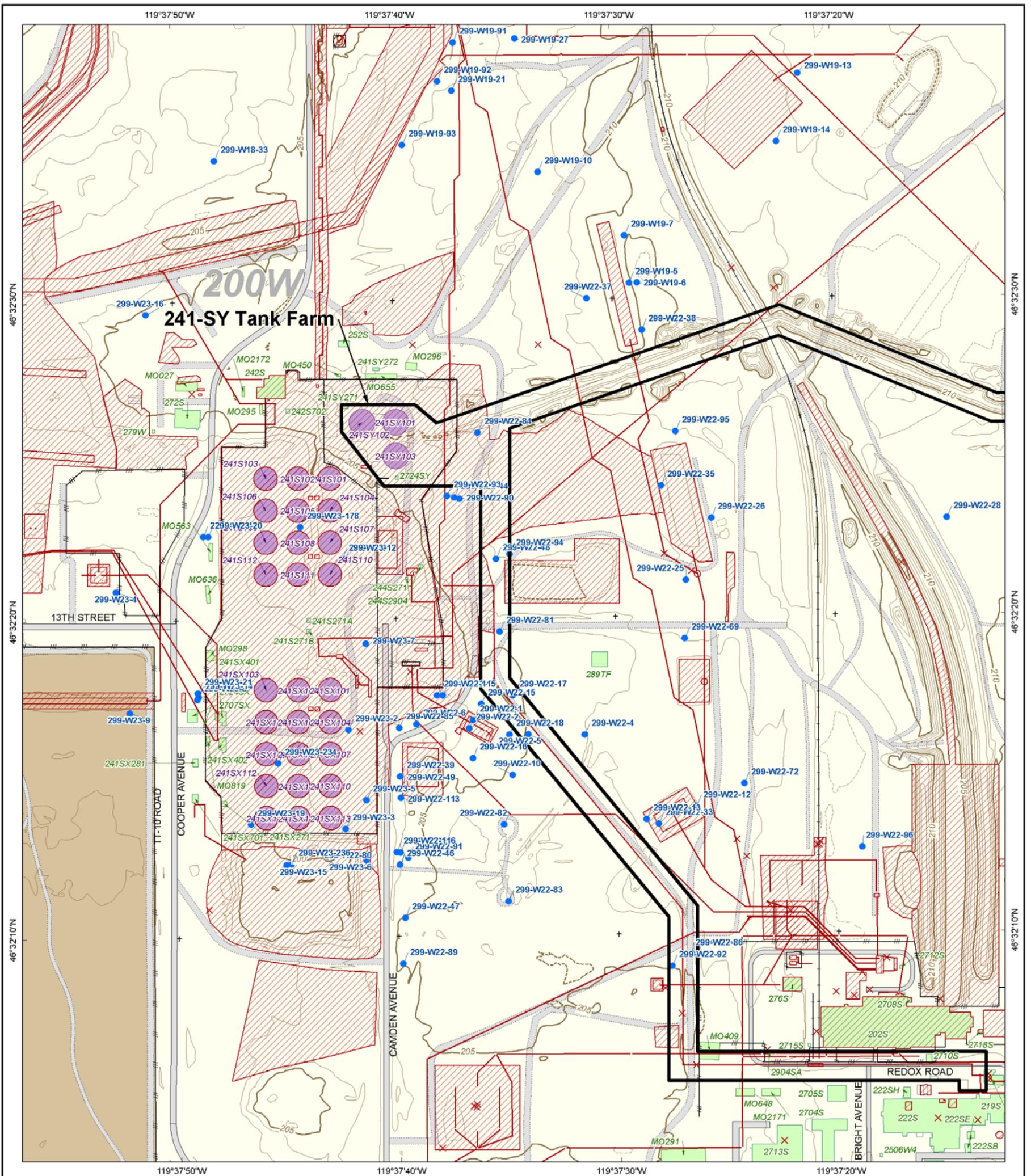
- Major Roads
- Service Roads
- Railroads
- Fences



Overview







The Hanford Site



DST System  
SY Tank Farm  
in  
200 West

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US DEPARTMENT OF ENERGY  
RICHLAND OPERATIONS OFFICE

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Horizontal Datum: NAD83  
Vertical Datum: NAVD88  
Topographic Data:  
1996, Bechtel Hanford, Inc.



- TSD Unit Group Boundary
- Contours at 1 Meter Intervals
- Depression Contours at 1 Meter Intervals
- Wells
- DOE Operating Areas
- Hanford Facility
- Tanks
- SWMUs and Known Releases
- Linear SWMUs and Known Releases
- Spot SWMUs and Known Releases
- Buildings and Mobiles
- Structures
- Concrete
- Major Roads
- Service Roads
- Railroads
- Fences

