



STATE OF NEW YORK
OFFICE OF GENERAL SERVICES
DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242



ADDENDUM NO. 1 TO PROJECT NO. 44619

**CONSTRUCTION WORK
REMEDiate FIRING RANGE
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY
WARWICK, NY**

December 23, 2013

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual.
Acknowledge receipt of this Addendum in the space provided on the Bid Form.

SPECIFICATIONS

1. Analytical of Available Analytical Data: Add the attached Document (43 pages) to the Project Manual.

DRAWINGS

2. Drawing No. C-001, GENERAL NOTES: Add the following Note:
“32. Surface penetrations for the collection of environmental samples at the firing range ranged from 0 - 4 feet using hand tools. There were no borings or boring logs, however, the field soil descriptions are provided as follows. The surface soil at the firing range consists primarily re-worked soil (fill) consisting of a mixture of local and imported soils comprised mainly of sand, gravel and silt. Typical fill thicknesses at the firing range vary from less than 1 foot to over 10 feet in the berms. Below the fill, subsoil at the firing range consists primarily of laminated silts and clays lying above a thin layer of weathered bedrock (sand and gravel). The subsoil is generally light brown, brown and gray in color, resting upon the limestone bedrock at varying depths. Bedrock outcrops immediately north of the northernmost point of the main berm.”

END OF ADDENDUM

James Dirolf, P.E.
Director of Design

JRC:jc

**PROJECT 44619-C
REMEDiate FIRING RANGE
MID-ORANGE CORRECTIONAL FACILITY**

APPENDIX A

SUMMARY OF AVAILABLE ANALYTICAL RESULTS

**PROJECT 44619-C
REMIEDIATE FIRING RANGE
MID-ORANGE CORRECTIONAL FACILITY**

SUMMARY OF AVAILABLE ANALYTICAL RESULTS

Three phases of soil chemical data collection occurred in 2013 at the firing range (FR) including samples collected during the Phase II on January 24-25, 2013 and during two pre-design sampling events on July 1, 2013 and August 5, 2013. In most cases, samples were analyzed for Resource Conservation and Recovery Act (RCRA) metals. However, some samples were analyzed for toxicity characteristic leaching procedure (TCLP) metals, TCLP lead, or total lead. The data is included in its entirety in Appendix A, Tables A-1 through A-10. Sample groups included:

- Eleven (11) site-specific background samples collected from 0-3 inches bgs (Table A-1). Samples were analyzed for RCRA metals.
- Nine (9) shallow (0 to 3-inches bgs) surface-soil composite samples (Range-01 through Range-09), composed of 5 aliquots of soil within approximately 250 ft² blocks (Table A-2). Samples were analyzed for RCRA metals.
- Eight (8) deep surface-soil (6 to 12-inches bgs) grab samples (Range-01D through Range-08D) collected from the approximate center of eight (8) of the composite sample blocks (Table A-3). Samples were analyzed for RCRA metals.
- Twenty-four (24) surface and sub-surface soil samples collected from six (6) locations at varying depths up to four feet bgs in the FR berms including four (4) locations along the south berm and two locations in the main-east berm (Table A-4). Samples were analyzed for RCRA metals.
- Six (6) “far-field” samples (Far-Field-01 through Far-Field-06) collected in an east-west trending line approximately 100-feet south of and parallel to the FR south berm (Table A-5). Far-Field samples were collected to provide analytical results for nearby off-range soils. The far-field samples were collected from the south of the firing range since it appeared to be the most likely area to have received arbitrary or inadvertent small arms firing and therefore had the greatest potential for off-range elevated concentrations of lead. The other three cardinal directions (i.e. North, West and East) from the FR were not likely to have received arbitrary small arms firing:

**PROJECT 44619-C
REMIEDIATE FIRING RANGE
MID-ORANGE CORRECTIONAL FACILITY**

to the north of the firing range is the access road (parked cars) and to the west is the correctional facility and to the east are the larger (taller) berms of the FR. Samples were analyzed for RCRA metals.

- Three (3) surface soil grab samples (Rangeline-01 through Rangeline-03) collected along the FR firing line (Table A-6). Samples were analyzed for RCRA metals.
- Nineteen (19) subsurface grab samples collected from a depth of 2 feet bgs at the shallow composite point sample locations of Range-01, Range-03, Range-05, and Range-08 (Table A-7). Samples were analyzed for RCRA metals.
- Three (3) samples for TCLP metals analysis collected at approximately 0-2 feet bgs from the western side of the main-east berm (Table A-8).
- Three (3) samples for TCLP lead (Table A-9) collected from 1-foot bgs from the eastern side of the main-east berm (SS-03) and from the range floor (SS-06 and SS-07). These samples were collected to compare TCLP to total lead results.
- Seven (4) samples for total lead (SS-01, though SS-07) collected from 1-foot bgs to characterize the back side of the eastern, northern, and southern berms (Table A-10) and to compare TCLP to total lead results.

The soil analytical results were compared to the NYSDEC Subpart 375-6 Restricted Residential Soil Soil sample results for total lead are shown on the following figures keyed to the depth of sampling:

<u>Figure Number</u>	<u>Depth</u>
Figure 3	0 to 6-inches bgs
Figure 4	6-inches to 1 foot
Figure 5	2 feet
Figure 6	Greater than 2 feet

TCLP lead results are shown on Figure 7. Note: Figures 1 and 2 are not used.

**PROJECT 44619-C
REMEDiate FIRING RANGE
MID-ORANGE CORRECTIONAL FACILITY**

FIGURES



LEGEND

- ☒ SOIL GRAB SAMPLE
- (74) TOTAL LEAD RESULT (MG/KG)
- (69,000) RESULTS EXCEEDING 400 MG/KG SHOWN IN RED



NYS OFFICE OF GENERAL SERVICES
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 ANDREW M. CUOMO
 Governor
 ROANN M. DESTITO
 Commissioner

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ANTHONY J. ANNUCCI
 Commissioner

WARNING:
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CONTRACT:

S7187

TITLE:
 REMEDIATE FIRING RANGE
 BASIS OF DESIGN REPORT

LOCATION:
 MID-ORANGE CORRECTIONAL FACILITY
 900 KINGS HIGHWAY
 WARWICK, NEW YORK

CLIENT:
 DEPARTMENT OF
 CORRECTIONAL SERVICES

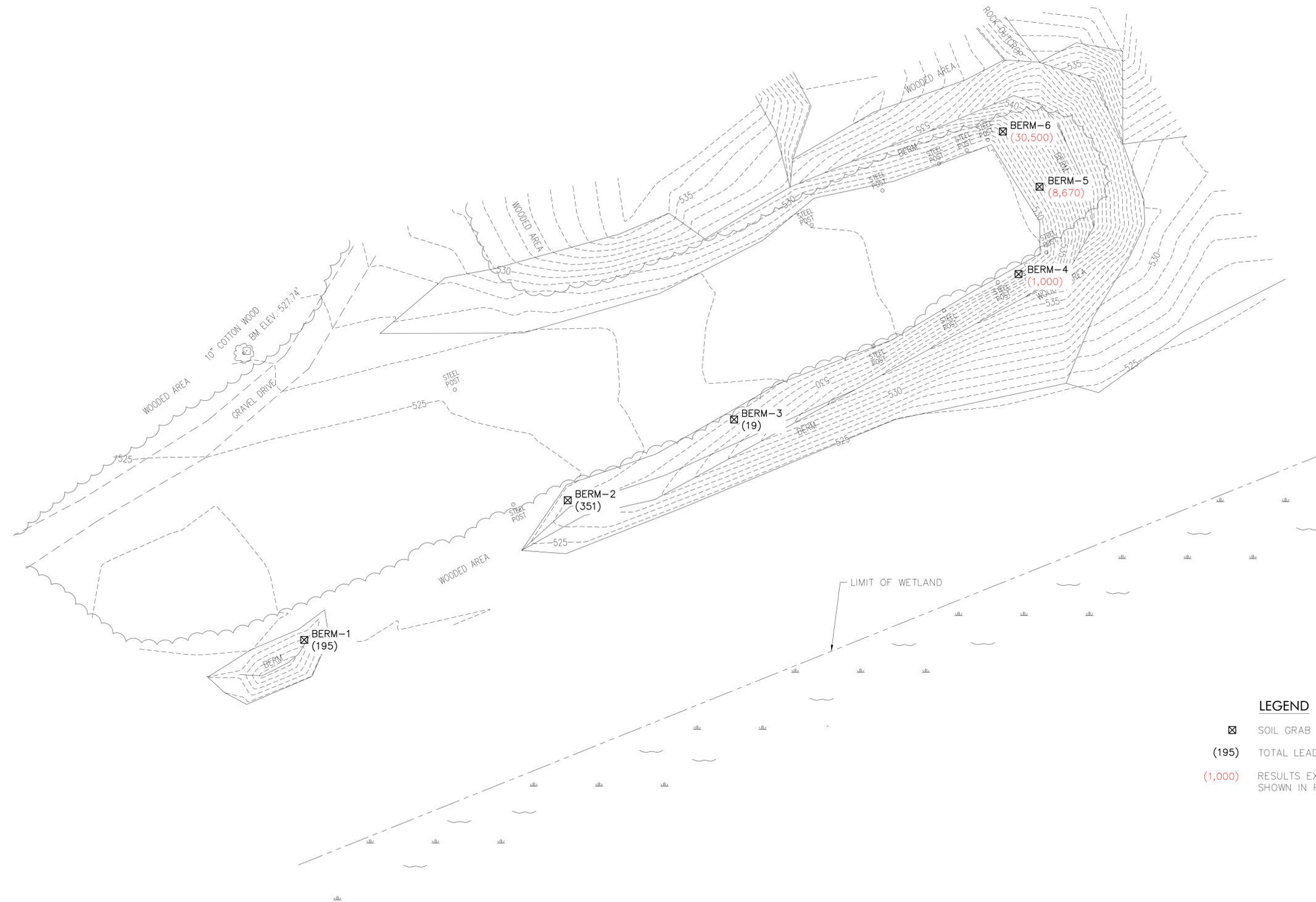


MARK	DATE	DESCRIPTION
PROJECT NUMBER:	44619	C
DESIGNED BY:	C. TAYLOR	
DRAWN BY:	A. KELLY	
FIELD CHECK:	N/A	
APPROVED:	B. PRYZBYL	

SHEET TITLE:
 LEAD SOIL SAMPLE RESULTS
 6 INCHES - 1 FOOT

FIGURE NUMBER:
 4

Sep 03, 2013 - 2:46pm
 J:\12-117-0295_OGS\Mid-Orange_Correctional_Facility\CAD\Basis of Design\MOOF_SS_RESULTS_6_1.dwg
 36x24 PLOT SHEET



LEGEND

- ☒ SOIL GRAB SAMPLE
- (195) TOTAL LEAD RESULT (MG/KG)
- (1,000) RESULTS EXCEEDING 400 MG/KG SHOWN IN RED



NYS OFFICE OF GENERAL SERVICES

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CONTRACT:

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TITLE:

REMIEDIATE FIRING RANGE
BASIS OF DESIGN REPORT

LOCATION:

MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY
WARWICK, NEW YORK

CLIENT:

DEPARTMENT OF
CORRECTIONAL SERVICES



LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

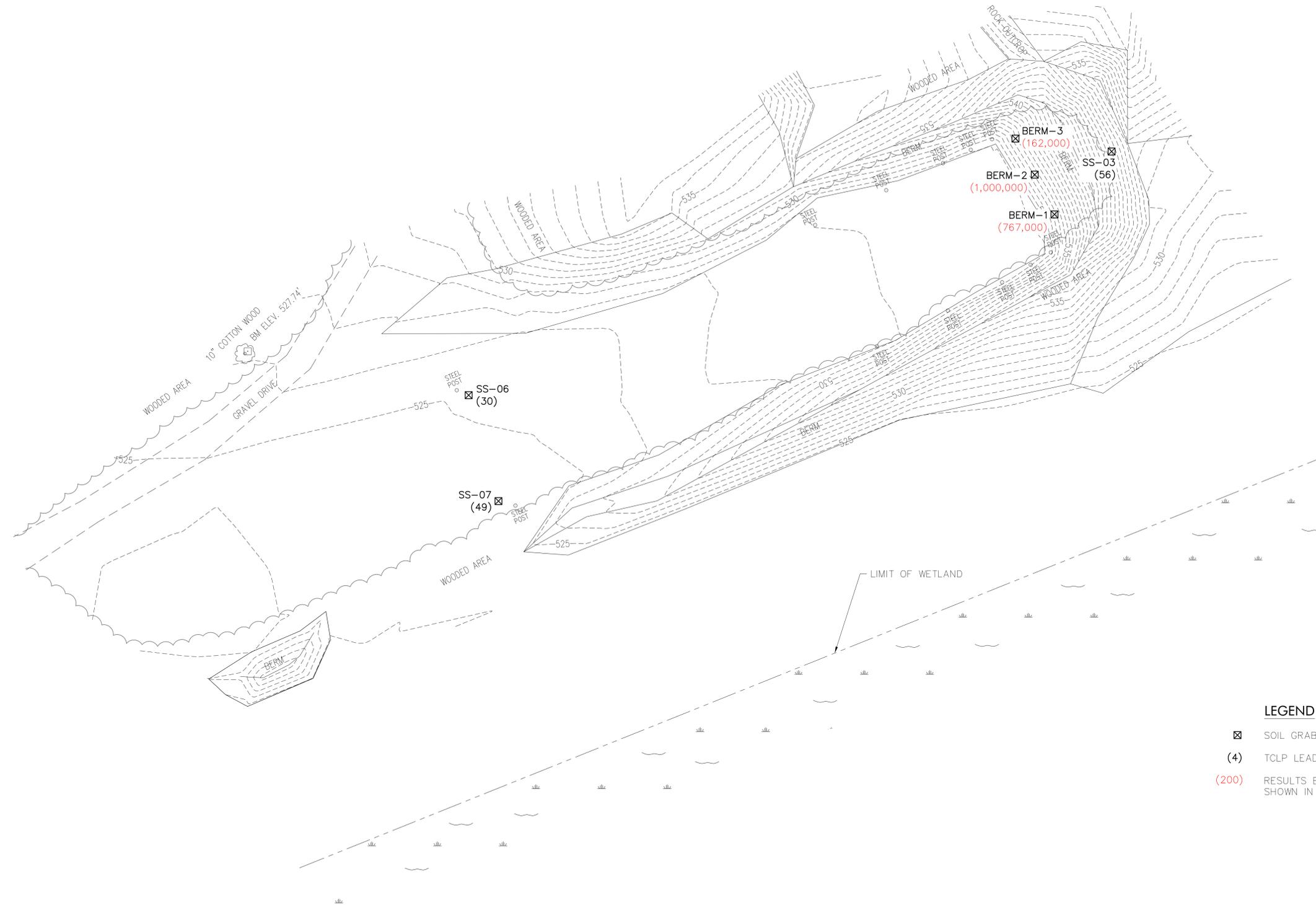
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	44619	C
DESIGNED BY:	C. TAYLOR	
DRAWN BY:	A. KELLY	
FIELD CHECK:	N/A	
APPROVED:	B. PRYZBYL	

SHEET TITLE:

LEAD SOIL SAMPLE RESULTS
GREATER THAN 2 FOOT

FIGURE NUMBER:

6



- LEGEND**
- ☒ SOIL GRAB SAMPLE
 - (4) TCLP LEAD RESULT ($\mu\text{g}/\text{L}$)
 - (200) RESULTS EXCEEDING 5,000 SHOWN IN RED



WARNING:
 THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.

CONTRACT: S7187
 TITLE: REMEDIATE FIRING RANGE BASIS OF DESIGN REPORT
 LOCATION: MID-ORANGE CORRECTIONAL FACILITY 900 KINGS HIGHWAY WARWICK, NEW YORK
 CLIENT: DEPARTMENT OF CORRECTIONAL SERVICES

MARK	DATE	DESCRIPTION
PROJECT NUMBER:	44619	C
DESIGNED BY:	C. TAYLOR	
DRAWN BY:	A. KELLY	
FIELD CHECK:	N/A	
APPROVED:	B. PRYZBYL	

SHEET TITLE: TCLP LEAD SAMPLE RESULTS

FIGURE NUMBER: 7

**PROJECT 44619-C
REMEDiate FIRING RANGE
MID-ORANGE CORRECTIONAL FACILITY**

TABLES

TABLE A-1
SOIL SAMPLING RESULTS: SITE-SPECIFIC BACKGROUND - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BACKGROUND-1		BACKGROUND-2		BACKGROUND-3	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1176-01		E1176-02		E1176-03	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	2.7		3.2		3.3	
Barium (Ba)	350	400	26.1		28.5		24.3	
Cadmium (Cd)*	2.5	4.3	0.21	U	0.20	U	0.18	U
Chromium (Cr)	30	180	10.0		11.7		6.2	
Lead (Pb)	63	400	23.3		19.6		15.2	
Mercury (Hg)	0.18	0.81	0.029		0.027		0.025	
Selenium (Se)	3.9	180	0.69	U	0.65	U	0.61	U
Silver (Ag)	2	180	0.35	U	0.24	J	0.30	U

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-1
SOIL SAMPLING RESULTS: SITE-SPECIFIC BACKGROUND - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BACKGROUND-4		BACKGROUND-5		BACKGROUND-6	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1176-04		E1176-05		E1176-06	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	2.3		5.1		5.8	
Barium (Ba)	350	400	41.6		66.0		44.0	
Cadmium (Cd)*	2.5	4.3	0.18	U	0.20	U	0.19	U
Chromium (Cr)	30	180	10.1		10.9		9.7	
Lead (Pb)	63	400	17.2		16.6		17.9	
Mercury (Hg)	0.18	0.81	0.033		0.043		0.043	
Selenium (Se)	3.9	180	0.60	U	0.65	U	0.63	U
Silver (Ag)	2	180	0.30	U	0.22	J	0.47	J

Note:

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TABLE A-1
SOIL SAMPLING RESULTS: SITE-SPECIFIC BACKGROUND - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BACKGROUND-7		BACKGROUND-8		BACKGROUND-9	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1176-07		E1176-08		E1176-09	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.9		5.4		3.4	
Barium (Ba)	350	400	65.4		58.8		64.6	
Cadmium (Cd)*	2.5	4.3	0.20	U	0.19	U	0.22	U
Chromium (Cr)	30	180	9.0		11.8		14.2	
Lead (Pb)	63	400	14.0		17.3		19.0	
Mercury (Hg)	0.18	0.81	0.051		0.040		0.050	
Selenium (Se)	3.9	180	0.66	U	0.63	U	0.73	U
Silver (Ag)	2	180	0.33	U	0.44	J	0.23	J

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

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TABLE A-1
SOIL SAMPLING RESULTS: SITE-SPECIFIC BACKGROUND - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BACKGROUND-10		BACKGROUND-11	
Sampling Type			Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1176-10		E1176-11	
Date Sampled			1/24/2013		1/24/2013	
Sample Media			Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg	
RCRA Metals						
Arsenic (As)	13	16	8.7		7.3	
Barium (Ba)	350	400	90.4		88.7	
Cadmium (Cd)*	2.5	4.3	0.21	U	0.20	U
Chromium (Cr)	30	180	12.7		13.4	
Lead (Pb)	63	400	19.1		31.2	
Mercury (Hg)	0.18	0.81	0.068		0.075	
Selenium (Se)	3.9	180	0.71	U	0.67	U
Silver (Ag)	2	180	0.50	J	0.60	J

Note:

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TABLE A-2
SOIL SAMPLING RESULTS: RANGE COMPOSITE SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	RANGE-01		RANGE-02		RANGE-03	
Sampling Type			Composite		Composite		Composite	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1178-01		E1178-03		E1178-05DL	
Date Sampled			1/25/2013		1/25/2013		1/25/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	9.5		5.6		363.0	
Barium (Ba)	350	400	39.4	N	29.6	N	59.0	N
Cadmium (Cd)	2.5	4.3	0.20	U	0.19	U	0.24	U
Chromium (Cr)	30	180	14.7		9.1		13.6	
Lead (Pb)	63	400	895.0		74.1		61500	D
Mercury (Hg)	0.18	0.81	0.041		0.010	J	0.035	
Selenium (Se)	3.9	180	0.67	U	0.62	U	0.79	U
Silver (Ag)	2	180	0.38	J	0.19	J	2.15	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

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TABLE A-2
SOIL SAMPLING RESULTS: RANGE COMPOSITE SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	RANGE-04		RANGE-05		RANGE-06	
Sampling Type			Composite		Composite		Composite	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1178-07		E1178-09		E1178-11	
Date Sampled			1/25/2013		1/25/2013		1/25/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.7		2.8		2.1	
Barium (Ba)	350	400	44.0	N	27.5	N	22.3	N
Cadmium (Cd)	2.5	4.3	0.16	U	0.17	U	0.14	U
Chromium (Cr)	30	180	12.8		12.0		10.5	
Lead (Pb)	63	400	67.5		103.0		61.1	
Mercury (Hg)	0.18	0.81	0.027		0.017		0.015	
Selenium (Se)	3.9	180	0.54	U	0.56	U	0.47	U
Silver (Ag)	2	180	0.34	J	0.57		0.15	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

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TABLE A-2
SOIL SAMPLING RESULTS: RANGE COMPOSITE SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	RANGE-07		RANGE-08		RANGE-09	
Sampling Type			Composite		Composite		Composite	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1178-13		E1178-15		E1178-17	
Date Sampled			1/25/2013		1/25/2013		1/25/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.9		10.9		4.9	
Barium (Ba)	350	400	43.5	N	38.6	N	75.8	N
Cadmium (Cd)	2.5	4.3	0.15	U	0.15	U	0.22	U
Chromium (Cr)	30	180	15.3		14.8		16.6	
Lead (Pb)	63	400	111.0		3300		48.2	
Mercury (Hg)	0.18	0.81	0.021		0.018		0.038	
Selenium (Se)	3.9	180	0.50	U	0.48	U	0.74	U
Silver (Ag)	2	180	0.43	J	0.63		0.40	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

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TABLE A-3
SOIL SAMPLING RESULTS: RANGE DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	RANGE-01D		RANGE-02D		RANGE-03D	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.5 to 1.0		0.5 to 1.0		0.5 to 1.0	
Lab Sample Designation			E1178-02		E1178-04		E1178-06	
Date Sampled			1/25/2013		1/25/2013		1/25/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	5.4		4.5		3.7	
Barium (Ba)	350	400	59.0	N	63.5	N	27.5	N
Cadmium (Cd)	2.5	4.3	0.17	U	0.21	U	0.15	U
Chromium (Cr)	30	180	14.8		17.7		15.9	
Lead (Pb)	63	400	354		221.0		178.0	
Mercury (Hg)	0.18	0.81	0.045		0.040		0.014	
Selenium (Se)	3.9	180	0.55	U	0.69	U	0.49	U
Silver (Ag)	2	180	0.41	J	0.43	J	0.64	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

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TABLE A-3
SOIL SAMPLING RESULTS: RANGE DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	RANGE-04D		RANGE-05D		RANGE-06D	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.5 to 1.0		0.5 to 1.0		0.5 to 1.0	
Lab Sample Designation			E1178-08		E1178-10		E1178-12	
Date Sampled			1/25/2013		1/25/2013		1/25/2013	
Sample Media			Soil		Soil		Soil	
Units			mg/kg	mg/kg	mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.3		5.2		3.2	
Barium (Ba)	350	400	33.0	N	33.4	N	21.9	N
Cadmium (Cd)	2.5	4.3	0.16	U	0.14	U	0.15	U
Chromium (Cr)	30	180	15.7		9.7		10.6	
Lead (Pb)	63	400	79.5		541		148.0	
Mercury (Hg)	0.18	0.81	0.025		0.019		0.022	
Selenium (Se)	3.9	180	0.53	U	0.47	U	0.48	U
Silver (Ag)	2	180	0.53		0.24	J	0.18	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-3
SOIL SAMPLING RESULTS: RANGE DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	RANGE-07D		RANGE-08D	
Sampling Type			Grab		Grab	
Sample Depth (feet)			0.5 to 1.0		0.5 to 1.0	
Lab Sample Designation			E1178-14		E1178-16	
Date Sampled			1/25/2013		1/25/2013	
Sample Media			Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg	
RCRA Metals						
Arsenic (As)	13	16	4.6		6.2	
Barium (Ba)	350	400	27.3	N	31.2	N
Cadmium (Cd)	2.5	4.3	0.14	U	0.15	U
Chromium (Cr)	30	180	10.9		14.5	
Lead (Pb)	63	400	302.0		1110	
Mercury (Hg)	0.18	0.81	0.013		0.015	
Selenium (Se)	3.9	180	0.45	U	0.49	U
Silver (Ag)	2	180	0.15	J	0.51	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-01 (Surface)		BERM-01 (1-ft)		BERM-01 (2-ft)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		1.0 to 1.0		2.0 to 2.0	
Lab Sample Designation			E1176-12		E1176-13		E1176-14	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	293.0		101.0		3.9	
Barium (Ba)	350	400	25.1		20.4		70.2	
Cadmium (Cd)	2.5	4.3	0.15	U	0.14	U	0.16	U
Chromium (Cr)*	30	180	10.5		11.8		12.2	
Lead (Pb)	63	400	51500	D	21300	D	84	
Mercury (Hg)	0.18	0.81	0.017		0.018		0.052	
Selenium (Se)	3.9	180	0.50	U	0.45	U	0.52	U
Silver (Ag)	2	180	2.21		1.24		0.51	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-01(4-ft)		BERM-02 (Surface)		BERM-02 (1-ft)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			4.0 to 4.0		0.0 to 0.2		1.0 to 1.0	
Lab Sample Designation			E1176-15		E1176-16		E1176-17	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	4.6		5.3		4.1	
Barium (Ba)	350	400	44.9		34.5		39.9	
Cadmium (Cd)	2.5	4.3	0.15	U	0.16	U	0.17	U
Chromium (Cr)*	30	180	12.5		12.4		13.7	
Lead (Pb)	63	400	195		1100		271	
Mercury (Hg)	0.18	0.81	0.032		0.023		0.031	
Selenium (Se)	3.9	180	0.49	U	0.52	U	0.56	U
Silver (Ag)	2	180	0.46	J	0.42	J	0.44	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-02 (2-ft)		BERM-02 (4-ft)		BERM-03 (Surface)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0 to 2.0		4.0 to 4.0		0.0 to 0.2	
Lab Sample Designation			E1176-18		E1176-19		E1176-20	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	91.0		5.4		4.5	
Barium (Ba)	350	400	43.9		44.4		21.3	
Cadmium (Cd)	2.5	4.3	0.17	U	0.17	U	0.16	U
Chromium (Cr)*	30	180	12.2		14.2		12.1	
Lead (Pb)	63	400	18700	D	351		144	
Mercury (Hg)	0.18	0.81	0.045		0.042		0.030	
Selenium (Se)	3.9	180	0.56	U	0.57	U	0.54	U
Silver (Ag)	2	180	0.79		0.46	J	0.43	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-03 (1-ft)		BERM-03 (2-ft)		BERM-03 (4-ft)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			1.0 to 1.0		2.0 to 2.0		4.0 to 4.0	
Lab Sample Designation			E1177-01		E1177-02		E1177-03	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	4.7		5.0		4.7	
Barium (Ba)	350	400	23.3	N	20.9		18.9	
Cadmium (Cd)	2.5	4.3	0.15	U	0.14		0.14	
Chromium (Cr)*	30	180	15.3		15.7		15.5	
Lead (Pb)	63	400	62	N	66		18.6	
Mercury (Hg)	0.18	0.81	0.023		0.026		0.016	
Selenium (Se)	3.9	180	0.48	U	0.46		0.46	
Silver (Ag)	2	180	0.61		0.69		0.66	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-04 (Surface)		BERM-04 (1-ft)		BERM-04 (2-ft)	
Sampling Type			Grab	Grab	Grab	Grab	Grab	
Sample Depth (feet)			0.0 to 0.2		1.0 to 1.0		2.0 to 2.0	
Lab Sample Designation			E1177-04		E1177-05		E1177-06	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	40.2		5.5		10.3	
Barium (Ba)	350	400	20.7		18.0		24.4	
Cadmium (Cd)	2.5	4.3	0.16		0.15		0.14	
Chromium (Cr)*	30	180	13.0		13.6		14.9	
Lead (Pb)	63	400	15200	DN	888		1380	
Mercury (Hg)	0.18	0.81	0.017		0.014		0.018	
Selenium (Se)	3.9	180	0.53		0.49		0.46	
Silver (Ag)	2	180	0.90		0.51		0.67	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-04 (4-ft)		BERM-05 (Surface)		BERM-05 (1-ft)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			4.0 to 4.0		0.0 to 0.2		1.0 to 1.0	
Lab Sample Designation			E1177-07		E1177-08		E1177-09	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	8.3		40.9		4.3	
Barium (Ba)	350	400	18.6		19.5		18.6	
Cadmium (Cd)	2.5	4.3	0.14		0.16		0.14	
Chromium (Cr)*	30	180	13.4		10.6		10.6	
Lead (Pb)	63	400	1000		62900	DN	69000	DN
Mercury (Hg)	0.18	0.81	0.016		0.013		0.012	
Selenium (Se)	3.9	180	0.46		0.51		0.47	
Silver (Ag)	2	180	0.55		6.07		4.22	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-05 (2-ft)		BERM-05 (4-ft)		BERM-06 (Surface)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0 to 2.0		4.0 to 4.0		0.0 to 0.2	
Lab Sample Designation			E1177-10		E1177-11		E1177-12	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	5.5		5.3		7.1	
Barium (Ba)	350	400	28.4		26.7		19.5	
Cadmium (Cd)	2.5	4.3	0.14		0.15		0.15	
Chromium (Cr)*	30	180	13.9		13.7		10.6	
Lead (Pb)	63	400	26500	DN	8670		28700	DN
Mercury (Hg)	0.18	0.81	0.011		0.013		0.013	
Selenium (Se)	3.9	180	0.46		0.50		0.48	
Silver (Ag)	2	180	1.33		0.71		1.14	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-4
SOIL SAMPLING RESULTS: BERM SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	BERM-06 (1-ft)		BERM-06 (2-ft)		BERM-06 (4-ft)	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			1.0 to 1.0		2.0 to 2.0		4.0 to 4.0	
Lab Sample Designation			E1177-13		E1177-14		E1177-15	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	8.1		8.2		57.2	
Barium (Ba)	350	400	34.7		21.5		18.2	
Cadmium (Cd)	2.5	4.3	0.14		0.15		0.14	
Chromium (Cr)*	30	180	11.9		11.1		11.0	
Lead (Pb)	63	400	25100	DN	17300	DN	30500	DN
Mercury (Hg)	0.18	0.81	0.013		0.011		0.010	
Selenium (Se)	3.9	180	0.48		0.50		0.48	
Silver (Ag)	2	180	1.20		0.86		1.54	

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram = parts per million (ppm).

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-5
SOIL SAMPLING RESULTS: FAR-FIELD SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	Far-Field-01		Far-Field-02		Far-Field-03	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1179-01		E1179-02		E1179-03	
Date Sampled			1/25/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.7		2.8		4.1	
Barium (Ba)	350	400	117.0		78.9		102.0	
Cadmium (Cd)	2.5	4.3	0.43	U	0.10	J	0.20	J
Chromium (Cr)*	30	180	18.9		15.4		17.0	
Lead (Pb)	63	400	133		66		212	
Mercury (Hg)	0.18	0.81	0.039		0.066		0.085	
Selenium (Se)	3.9	180	1.44	U	0.61	U	0.86	U
Silver (Ag)	2	180	0.72	U	0.43	J	0.37	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-5
SOIL SAMPLING RESULTS: FAR-FIELD SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	Far-Field-04		Far-Field-05		Far-Field-06	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1179-04		E1179-05		E1179-06	
Date Sampled			1/24/2013		1/24/2013		1/24/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	4.3		2.6		3.5	
Barium (Ba)	350	400	128.0		83.5		123.0	
Cadmium (Cd)	2.5	4.3	0.26	U	0.22	U	0.33	U
Chromium (Cr)*	30	180	17.7		13.6		18.3	
Lead (Pb)	63	400	103		28		78	
Mercury (Hg)	0.18	0.81	0.114		0.079		0.138	
Selenium (Se)	3.9	180	0.85	U	0.71	U	1.10	U
Silver (Ag)	2	180	0.60	J	0.34	J	0.39	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-6
SOIL SAMPLING RESULTS: RANGELINE SAMPLES - RCRA METALS
FSAR INVESTIGATION - JANUARY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	Rangeline-01		Rangeline-02		Rangeline-03	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			0.0 to 0.2		0.0 to 0.2		0.0 to 0.2	
Lab Sample Designation			E1178-18		E1178-19		E1178-20	
Date Sampled			1/25/2013		1/25/2013		1/25/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.0		4.4		3.7	
Barium (Ba)	350	400	39.3	N	31.7	N	66.5	N
Cadmium (Cd)	2.5	4.3	0.19	U	0.14	U	0.19	U
Chromium (Cr)*	30	180	9.6		8.7		14.2	
Lead (Pb)	63	400	24		130		243	
Mercury (Hg)	0.18	0.81	0.136		0.015		0.042	
Selenium (Se)	3.9	180	0.63	U	0.47	U	0.64	U
Silver (Ag)	2	180	0.32	U	0.31	J	0.30	J

Note:

* = Trivalent Chromium Soil Cleanup Objective

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	1-1		1-2		1-3	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0		2.0		2.0	
Lab Sample Designation			E1178-02		E1178-04		E1178-06	
Date Sampled			7/1/2013		7/1/2013		7/1/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	2.6	1	0.8	1	1.7	1
Barium (Ba)	350	400	67.7	N*	40.0	N*	54.7	N*
Cadmium (Cd)	2.5	4.3	0.31	1	0.22	1	0.30	1
Chromium (Cr)	30	180	10.3	1	9.9	1	11.4	1
Lead (Pb)	63	400	16	*	8.5	*	10.5	*
Mercury (Hg)	0.18	0.81	0.060	1	0.018	1	0.029	1
Selenium (Se)	3.9	180	0.27	J	0.27	U	0.27	U
Silver (Ag)	2	180	0.15	U	0.14	U	0.13	U

Note:

* = Indicates the duplicate analysis is not within control limits.

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

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TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	1-4		3-1		3-2	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0		2.0		2.0	
Lab Sample Designation			E1178-08		E1178-10		E1178-12	
Date Sampled			7/1/2013		7/1/2013		7/1/2013	
Sample Media			Soil		Soil		Soil	
Units			mg/kg	mg/kg	mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	2.8	1	3.7	1	1.2	1
Barium (Ba)	350	400	59.0	N*	51.2	N*	45.3	N*
Cadmium (Cd)	2.5	4.3	0.31	1	0.35	1	0.28	1
Chromium (Cr)	30	180	10.9	1	11.6	1	11.2	1
Lead (Pb)	63	400	19.5	*	11	*	10.6	*
Mercury (Hg)	0.18	0.81	0.056	1	0.032	1	0.026	1
Selenium (Se)	3.9	180	0.28	U	0.28	U	0.28	U
Silver (Ag)	2	180	0.14	U	0.14	U	0.14	U

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

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TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	3-3		3-4		3-5	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0		2.0		2.0	
Lab Sample Designation			E1178-14		E1178-16		E1178-16	
Date Sampled			7/1/2013		7/1/2013		7/1/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	1.6	1	0.8	1	0.8	1
Barium (Ba)	350	400	58.2	N*	26.4	N*	64.8	N*
Cadmium (Cd)	2.5	4.3	0.31	1	0.23	1	0.25	1
Chromium (Cr)	30	180	9.4	1	8.8	1	10.4	1
Lead (Pb)	63	400	9.2	*	18	*	12	*
Mercury (Hg)	0.18	0.81	0.040	1	0.019	1	0.056	1
Selenium (Se)	3.9	180	0.25	J	0.27	U	0.29	U
Silver (Ag)	2	180	0.12	U	0.13	U	0.14	U

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

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TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	5-1		5-2		5-3	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0		2.0		2.0	
Lab Sample Designation			E1178-16		E1178-16		E1178-16	
Date Sampled			7/1/2013		7/1/2013		7/1/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	3.0	1	1.4	1	1.7	1
Barium (Ba)	350	400	31.0	N*	26.4	N*	27.2	N*
Cadmium (Cd)	2.5	4.3	0.36	1	0.21	1	0.27	1
Chromium (Cr)	30	180	8.9	1	8.2	1	9.5	1
Lead (Pb)	63	400	40	*	14	*	13	*
Mercury (Hg)	0.18	0.81	0.022	1	0.019	1	0.016	1
Selenium (Se)	3.9	180	0.28	U	0.29	U	0.27	U
Silver (Ag)	2	180	0.14	U	0.15	U	0.14	U

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

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TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	5-4		5-5		8-1	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0		2.0		2.0	
Lab Sample Designation			E1178-16		E1178-16		E1178-16	
Date Sampled			7/1/2013		7/1/2013		7/1/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	1.7	1	1.9	1	5.4	1
Barium (Ba)	350	400	80.4	N*	40.2	N*	37.4	N*
Cadmium (Cd)	2.5	4.3	0.53	1	0.34	1	0.42	1
Chromium (Cr)	30	180	13.2	1	8.8	1	9.1	1
Lead (Pb)	63	400	16	*	19	*	294	*
Mercury (Hg)	0.18	0.81	0.046	1	0.031	1	0.027	1
Selenium (Se)	3.9	180	0.27	U	0.30	U	0.28	U
Silver (Ag)	2	180	0.13	U	0.15	U	0.14	U

Note:

* = Indicates the duplicate analysis is not within control limits.

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

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5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	8-2		8-3		8-4	
Sampling Type			Grab		Grab		Grab	
Sample Depth (feet)			2.0		2.0		2.0	
Lab Sample Designation			E1178-16		E1178-16		E1178-16	
Date Sampled			7/1/2013		7/1/2013		7/1/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Arsenic (As)	13	16	4.5	1	3.8	1	3.3	1
Barium (Ba)	350	400	29.9	N*	8.1	N*	14.1	N*
Cadmium (Cd)	2.5	4.3	0.56	1	0.17	1	0.36	1
Chromium (Cr)	30	180	11.5	1	5.4	1	9.8	1
Lead (Pb)	63	400	75	*	120	*	67	*
Mercury (Hg)	0.18	0.81	0.028	1	0.023	1	0.023	1
Selenium (Se)	3.9	180	0.26	U	0.27	U	0.26	U
Silver (Ag)	2	180	0.13	U	0.13	U	0.13	U

Note:

* = Indicates the duplicate analysis is not within control limits.

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-7
SUPPLEMENTAL DEEP SAMPLES - RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	8-5	
Sampling Type			Grab	
Sample Depth (feet)			2.0	
Lab Sample Designation			E1178-16	
Date Sampled			7/1/2013	
Sample Media			Soil	
Units	mg/kg	mg/kg	mg/kg	
RCRA Metals				
Arsenic (As)	13	16	9.2	1
Barium (Ba)	350	400	29.3	N*
Cadmium (Cd)	2.5	4.3	0.38	1
Chromium (Cr)	30	180	11.9	1
Lead (Pb)	63	400	1520	*
Mercury (Hg)	0.18	0.81	0.020	1
Selenium (Se)	3.9	180	0.25	U
Silver (Ag)	2	180	0.13	U

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

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**TABLE A-8
SUPPLEMENTAL BERM SAMPLES - TCLP RCRA METALS
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK**

Sample Location	TCLP Criteria	Berm 1		Berm 2		Berm 3	
Sampling Type		Grab		Grab		Grab	
Sample Depth (feet)		0.0 to 0.5		0.0 to 0.5		0.0 to 0.5	
Lab Sample Designation		E2785-01		E2785-02		E2785-03	
Date Sampled		7/1/2013		7/1/2013		7/1/2013	
Sample Media		Soil		Soil		Soil	
Units	ug/L	ug/L		ug/L		ug/L	
RCRA Metals							
Arsenic (As)	5000	53.5	J	50.0	U	50.0	U
Barium (Ba)	150000	962.0		1260.0		853.0	
Cadmium (Cd)	1000	15.00	U	15.00	U	15.00	U
Chromium (Cr)	5000	399.0		25.0	U	25.0	U
Lead (Pb)	5000	162000		1000000		767000	
Mercury (Hg)	200	1.000	U	1.000	U	1.000	U
Selenium (Se)	1000	50.00	U	89.10	J	50.00	U
Silver (Ag)	5000	25.00	U	25.00	U	25.00	U

Note:

* = Indicates the duplicate analysis is not within control limits.

1) Metals analyzed by USEPA methods 6010/7471.

2) ug/L = micrograms per liter.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

**TABLE A-9
 SUPPLEMENTAL TCLP LEAD SAMPLES
 FSAR INVESTIGATION - AUGUST 2013
 MID-ORANGE CORRECTIONAL FACILITY
 900 KINGS HIGHWAY, WARWICK, NEW YORK**

Sample Location	TCLP Criteria	SS-03	SS-06	SS-07			
Sampling Type		Grab	Grab	Grab			
Sample Depth (feet)		0.3	0.3	0.3			
Lab Sample Designation		E3217-08	E3217-09	E3217-10			
Date Sampled		8/5/2013	8/5/2013	8/5/2013			
Sample Media		Soil	Soil	Soil			
Units		ug/L	ug/L	ug/L			
RCRA Metals							
Lead (Pb)	5000	56	J	30	U	49	J

Note:

* = Indicates the duplicate analysis is not within control limits.

- 1) Metals analyzed by USEPA methods 6010/7471.
- 2) ug/L = micrograms per liter.
- 3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential
- 4) U = The compound was not detected at the indicated concentration.
- 5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-10
SUPPLEMENTAL TOTAL LEAD SAMPLES
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	SS-01	SS-02	SS-03
Sampling Type			Grab	Grab	Grab
Sample Depth (feet)			0.3	0.3	0.3
Lab Sample Designation			E3217-01	E3217-02	E3217-03
Date Sampled			8/5/2013	8/5/2013	8/5/2013
Sample Media			Soil	Soil	Soil
Units			mg/kg	mg/kg	mg/kg
RCRA Metals					
Lead (Pb)	63	400	434	40.2	106.0

Note:

* = Indicates the duplicate analysis is not within control limits.

1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

TABLE A-10
SUPPLEMENTAL TOTAL LEAD SAMPLES
FSAR INVESTIGATION - JULY 2013
MID-ORANGE CORRECTIONAL FACILITY
900 KINGS HIGHWAY, WARWICK, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	SS-04		SS-05		SS-06	
Sampling Type			Grab	Grab	Grab	Grab	Grab	
Sample Depth (feet)			0.3		0.3		0.3	
Lab Sample Designation			E3217-04		E3217-05		E3117-06	
Date Sampled			8/5/2013		8/5/2013		8/5/2013	
Sample Media			Soil		Soil		Soil	
Units	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg	
RCRA Metals								
Lead (Pb)	63	400	35.3		761		12.5	

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

3) Shaded = Exceed Unrestricted Use, Bold = Exceed Restricted Residential

4) U = The compound was not detected at the indicated concentration.

5) J = Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

**TABLE A-10
 SUPPLEMENTAL TOTAL LEAD SAMPLES
 FSAR INVESTIGATION - JULY 2013
 MID-ORANGE CORRECTIONAL FACILITY
 900 KINGS HIGHWAY, WARWICK, NEW YORK**

Sample Location	NYSDEC Standards & Guidance Values DER-10 Unrestricted Use	NYSDEC Standards & Guidance Values DER-10 Restricted Residential	SS-07	
Sampling Type			Grab	
Sample Depth (feet)			0.3	
Lab Sample Designation			E3217-07	
Date Sampled			8/5/2013	
Sample Media			Soil	
Units	mg/kg	mg/kg	mg/kg	
RCRA Metals				
Lead (Pb)	63	400	32.8	

Note:

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1) Metals analyzed by USEPA methods 6010/7471.

2) mg/kg = milligrams per kilogram.

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