Table 17A

New Jersey Zinc/Mobil Chemical Site
DePue, Illinois
Removal Action Limit Assessment Report

Soil Sample Analytical Results for Property SS-17 (IDPH Location W06) - Composite Samples

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-COMP2(0-1) 0 - 1 06/16/05	OU4-SS-17-COMP2(1-6) 1 - 6 06/16/05	OU4-SS-17-COMP2(6-12) 6 - 12 06/16/05	OU4-SS-17-COMP2(12-18) 12 - 18 06/16/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	43	mg/kg	21.0 J	25.6 J	9.85 U	20.2 J
Barium	55000	mg/kg	1080 J	1150 J	768 J	687 J
Cadmium	390	mg/kg	52.1	58.4	35.7 U	57.9
Chromium	3900	mg/kg	113 U	121 U	98.9 U	101 U
Cobalt	47000	mg/kg	120 U	126 U	96.9 U	103 U
Copper	31000	mg/kg	33.4 J	37.6 J	26.4 J	36.2 J
Iron	230000	mg/kg	24300	24600	15600 U	17700 U
Lead	1200	mg/kg	296 J	375 J	199 J	171 J
Manganese	18000	mg/kg	504 UJ	585 UJ	451 UJ	576 UJ
Mercury	78	mg/kg	9.74 UJ	10.4 UJ	9.19 UJ	9.03 UJ
Nickel	16000	mg/kg	24.5 U	25.9 U	21.3 U	20.9 U
Selenium	3900	mg/kg	2.80 U	3.00 U	2.56 U	2.62 U
Silver	3900	mg/kg	25.0 U	27.1 U	24.9 U	24.6 U
Zinc	230000	mg/kg	2430	2810	1390	1350
Metals (USEPA SW-846 6000/7000)						
Aluminum	- -	mg/kg	NA	8930	NA	NA
Antimony	- -	mg/kg	NA	6.38 U	NA	NA
Arsenic	43	mg/kg	NA	16.1	NA	NA
Barium	55000	mg/kg	NA	1830	NA	NA
Beryllium	- -	mg/kg	NA	0.816	NA	NA
Cadmium	390	mg/kg	NA	19.8	NA	NA
Calcium	- -	mg/kg	NA	19000	NA	NA
Chromium	3900	mg/kg	NA	20.0	NA	NA
Cobalt	47000	mg/kg	NA	6.86	NA	NA
Copper	31000	mg/kg	NA	47.0	NA	NA
Iron	230000	mg/kg	NA	19200	NA	NA
Lead	1200	mg/kg	NA	269	NA	NA
Magnesium	- -	mg/kg	NA	9800	NA	NA
Manganese	18000	mg/kg	NA	542	NA	NA
Mercury	78	mg/kg	NA	0.101 B	NA	NA
Nickel	16000	mg/kg	NA	20.2	NA	NA
Potassium	- -	mg/kg	NA	1800	NA	NA
Selenium	3900	mg/kg	NA	1.06 U	NA	NA
Silver	3900	mg/kg	NA	0.648 B	NA	NA
Sodium	- -	mg/kg	NA	94.1 J	NA	NA
Thallium	- -	mg/kg	NA	1.06 U	NA	NA
Vanadium	- -	mg/kg	NA	23.4	NA	NA
Zinc	230000	mg/kg	NA	2030 J	NA	NA

Table 17A

New Jersey Zinc/Mobil Chemical Site
DePue, Illinois
Removal Action Limit Assessment Report

Soil Sample Analytical Results for Property SS-17 (IDPH Location W06) - Composite Samples

Notes:

NA = Not Analyzed
RAL = Removal Action Levels: from Hazard Evaluation Handbook: A Guide to Removal Actions. October 1997. Fourth Edition. EPA 903/B-97-006.
mg/kg = milligrams per kilogram
XRF = X-Ray Fluorescence
= Values exceed Residential RAL Criteria.
J = The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
U = The analyte was analyzed for but not detected.
B = The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).
R = The sample results are rejected.
JQ = The analyte was detected above the reported limit but below the method detection limit; therefore, the reported value should not be used for quantitative measurement.
UJ = The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
[ ] = Field Duplicate

Table 17B

New Jersey Zinc/Mobil Chemical Site
DePue, Illinois
Removal Action Limit Assessment Report

Soil Sample Analytical Results for Property SS-17 (IDHP Location W06) - Discrete Samples

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-01(0-1) 0 - 1 06/23/05	OU4-SS-17-01(1-6) 1 - 6 06/23/05	OU4-SS-17-01(6-12) 6 - 12 06/23/05	OU4-SS-17-01(12-18) 12 - 18 06/23/05	OU4-SS-17-02(0-1) 0 - 1 06/23/05	OU4-SS-17-02(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	43	mg/kg	16.7 U	31.4	11.1 U	5.54 U	8.07 U	6.20 U
Metals (USEPA SW-846 6000/7000)								
Arsenic	43	mg/kg	NA	NA	NA	NA	NA	NA

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-02(6-12) 6 - 12 06/23/05	OU4-SS-17-02(12-18) 12 - 18 06/23/05	OU4-SS-17-03(0-1) 0 - 1 06/23/05	OU4-SS-17-03(1-6) 1 - 6 06/23/05	OU4-SS-17-03(6-12) 6 - 12 06/23/05	OU4-SS-17-03(12-18) 12 - 18 06/23/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	43	mg/kg	5.50 U	4.49 U	10.7 J	9.00 U	9.36 U	37.6 J
Metals (USEPA SW-846 6000/7000)								
Arsenic	43	mg/kg	NA	NA	NA	NA	NA	NA

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-04(0-1) 0 - 1 06/23/05	OU4-SS-17-04(1-6) 1 - 6 06/23/05	OU4-SS-17-04(6-12) 6 - 12 06/23/05	OU4-SS-17-04(12-18) 12 - 18 06/23/05	OU4-SS-17-05(0-1) 0 - 1 06/23/05	OU4-SS-17-05(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	43	mg/kg	10.8 J	8.98	9.36 U	16.1 U	14.7 U	37.1 J [33.9 J]
Metals (USEPA SW-846 6000/7000)								
Arsenic	43	mg/kg	NA	NA	NA	NA	NA	NA

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-05(6-12) 6 - 12 06/23/05	OU4-SS-17-05(12-18) 12 - 18 06/23/05	OU4-SS-17-06(0-1) 0 - 1 06/23/05	OU4-SS-17-06(1-6) 1 - 6 06/23/05	OU4-SS-17-06(6-12) 6 - 12 06/23/05	OU4-SS-17-06(12-18) 12 - 18 06/23/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	43	mg/kg	11.9 U	8.61 U	9.00 U	14.4 U	25.1 J	18.3 U
Metals (USEPA SW-846 6000/7000)								
Arsenic	43	mg/kg	NA	NA	NA	NA	NA	NA

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-07(0-1) 0 - 1 06/23/05	OU4-SS-17-07(1-6) 1 - 6 06/23/05	OU4-SS-17-07(6-12) 6 - 12 06/23/05	OU4-SS-17-07(12-18) 12 - 18 06/23/05	OU4-SS-17-08(0-1) 0 - 1 06/23/05	OU4-SS-17-08(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	43	mg/kg	9.99 U	17.3 U	8.35 U	4.93 U	40.8 J	37.2 J
Metals (USEPA SW-846 6000/7000)								
Arsenic	43	mg/kg	NA	NA	NA	NA	NA	NA

Table 17B

New Jersey Zinc/Mobil Chemical Site
DePue, Illinois
Removal Action Limit Assessment Report

Soil Sample Analytical Results for Property SS-17 (IDHP Location W06) - Discrete Samples

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-08(6-12) 6 - 12 06/23/05	OU4-SS-17-08(12-18) 12 - 18 06/23/05	OU4-SS-17-09(0-1) 0 - 1 06/23/05	OU4-SS-17-09(1-6) 1 - 6 06/23/05	OU4-SS-17-09(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 6200)							
Arsenic	43	mg/kg	4.65 U	11.0 U	19.4 U	23.0 J	12.2 U
Metals (USEPA SW-846 6000/7000)							
Arsenic	43	mg/kg	NA	NA	NA	NA	NA

Sample ID: Sample Depth(Inches): Date Collected:	Residential RAL	Units	OU4-SS-17-09(12-18) 12 - 18 06/23/05	OU4-SS-17-10(0-1) 0 - 1 06/23/05	OU4-SS-17-10(1-6) 1 - 6 06/23/05	OU4-SS-17-10(6-12) 6 - 12 06/23/05	OU4-SS-17-10(12-18) 12 - 18 06/23/05
Metals - XRF (USEPA SW-846 6200)							
Arsenic	43	mg/kg	7.15 U	15.5 J [15.6 J]	17.5 U	40.7 J	88.2 J [101 J]
Metals (USEPA SW-846 6000/7000)							
Arsenic	43	mg/kg	NA	NA	NA	NA	78.5 J

Notes:

NA = Not Analyzed
RAL = Removal Action Levels: from Hazard Evaluation Handbook: A Guide to Removal Actions. October 1997. Fourth Edition. EPA 903/B-97-006.
mg/kg = milligrams per kilogram
XRF = X-Ray Fluorescence
= Values exceed Residential RAL Criteria.
J = The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
U = The analyte was analyzed for but not detected.
B = The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).
R = The sample results are rejected.
JQ = The analyte was detected above the reported limit but below the method detection limit; therefore, the reported value should not be used for quantitative measurement.
UJ = The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
[ ] = Field Duplicate

Appendix C

Field Sample Descriptions

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-01	W11	OU4-SS-01-COMP1(0-1)		
SS-01	W11	OU4-SS-01-01(0-1)	Front Yard	Brown Silt, Little F. Sand, Trace Organics Roots/Grass
SS-01	W11	OU4-SS-01-02(0-1)	Front Yard	Brown Silt, Little F.M. Sand, Trace Roots/Grass
SS-01	W11	OU4-SS-01-03(0-1)	Side Yard	Brown Silt, Little F.M. Sand, Trace Roots/Grass
SS-01	W11	OU4-SS-01-04(0-1)	Side Yard	Brown Silt, Little F.M. Sand, Trace Roots/Grass
SS-01	W11	OU4-SS-01-05(0-1)	Side Yard	Brown Silt, Little F.M. Sand, Trace Roots/Clay
SS-01	W11	OU4-SS-01-COMP1(1-6)		
SS-01	W11	OU4-SS-01-01(1-6)	Front Yard	Brown Silt, Little F. Sand, Trace Organics Roots/Grass
SS-01	W11	OU4-SS-01-02(1-6)	Front Yard	Brown Silt, F.C. Sand, Little M. Sand, Trace Roots/Grass
SS-01	W11	OU4-SS-01-03(1-6)	Side Yard	Brown Silt, Little F.M. C. Sand, Trace Roots/Grass, Trace Clay
SS-01	W11	OU4-SS-01-04(1-6)	Side Yard	Brown Silt/F.M. Sand, Little Silt/Clay, Trace Roots/Grass
SS-01	W11	OU4-SS-01-05(1-6)	Side Yard	Brown Silt/F.M. Sand, Trace Silt/Roots/Clay
SS-01	W11	OU4-SS-01-05(1-6)-DUP	Side Yard	Brown Silt/F.M. Sand, Trace Silt/Roots/Clay
SS-01	W11	OU4-SS-01-COMP1(12-18)		
SS-01	W11	OU4-SS-01-01(12-18)	Front Yard	Brown Silt, Little F. Sand, Trace Organics, Roots/Grass
SS-01	W11	OU4-SS-01-02 (12-18)	Front Yard	Brown/Orange F.C. Sand, Some Silt
SS-01	W11	OU4-SS-01-03(12-18)	Side Yard	Brown/Orange F. C. Sand, Some Silt, Little Clay
SS-01	W11	OU4-SS-01-04(12-18)	Side Yard	Brown F.M. Sand/Silty Clay
SS-01	W11	OU4-SS-01-05(12-18)	Side Yard	Brown Orange Silty Clay, Trace F. M. Sand
SS-01	W11	OU4-SS-01-COMP1(6-12)		
SS-01	W11	OU4-SS-01-01(6-12)	Front Yard	Brown Silt, Little F. Sand, Trace Organics, Roots/Grass
SS-01	W11	OU4-SS-01-02 (6-12)	Front Yard	Brown F. C. Sand
SS-01	W11	OU4-SS-01-03(6-12)	Side Yard	Brown Silt, Little F.C. Sand, Trace Clay
SS-01	W11	OU4-SS-01-04(6-12)	Side Yard	Brown F.M. Sand, Little Silt/Clay
SS-01	W11	OU4-SS-01-05(6-12)	Side Yard	Brown F.M. Sand/Brown Orange Silty Clay
SS-01	W11	OU4-SS-01-COMP2(0-1)		
SS-01	W11	OU4-SS-01-06(0-1)	Back Yard	Brown F.M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-07(0-1)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-08(0-1)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-09(0-1)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-10(0-1)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-COMP2(1-6)		
SS-01	W11	OU4-SS-01-06(1-6)	Back Yard	Brown/Black F. Sand, Trace Roots/C. Sand/ Silt
SS-01	W11	OU4-SS-01-07(1-6)	Back Yard	Brown/Black F. Sand, Trace Roots
SS-01	W11	OU4-SS-01-08(1-6)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots/Wood
SS-01	W11	OU4-SS-01-09(1-6)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-10(1-6)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-COMP2(12-18)		
SS-01	W11	OU4-SS-01-06(12-18)	Back Yard	Brown F. M. Sand, Trace Roots/Silt
SS-01	W11	OU4-SS-01-07(12-18)	Back Yard	Brown F. M. Sand, Little Silt/Clay, Trace Roots
SS-01	W11	OU4-SS-01-08(12-18)	Back Yard	Orange/Brown F. M. Sand, Some F. Gravel, Little Silt, Trace Roots/Wood
SS-01	W11	OU4-SS-01-09(12-18)	Back Yard	Orange Brown F. M. Sand, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-10(12-18)	Back Yard	Orange/Brown F. Sand, Some Silt/Clay, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-COMP2(6-12)		
SS-01	W11	OU4-SS-01-06(6-12)	Back Yard	Brown F. M. Sand, Trace Roots/Silt
SS-01	W11	OU4-SS-01-07(6-12)	Back Yard	Brown/Black F. Sand, Trace Roots
SS-01	W11	OU4-SS-01-08(6-12)	Back Yard	Brown F. Sand, Little Silt, Trace Roots/Wood
SS-01	W11	OU4-SS-01-09(6-12)	Back Yard	Brown F. Sand, Trace Roots
SS-01	W11	OU4-SS-01-10(6-12)	Back Yard	Brown F. M. Sand, Little Silt, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-COMP3(0-1)		
SS-01	W11	OU4-SS-01-11(0-1)	Back Yard	Brown F. M. Sand, Some Silt, Trace Roots/Grass
SS-01	W11	OU4-SS-01-12(0-1)	Back Yard	Brown F. M. Sand, Some Silt, Trace Roots/ F. Gravel
SS-01	W11	OU4-SS-01-13(0-1)	Side Yard	Brown Silt, Some F. M. Sand, Trace Roots/Wood
SS-01	W11	OU4-SS-01-14(0-1)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-15(0-1)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Coal
SS-01	W11	OU4-SS-01-15(0-1)-DUP	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Coal
SS-01	W11	OU4-SS-01-COMP3(1-6)		
SS-01	W11	OU4-SS-01-11(1-6)	Side Yard	Brown F. M. Sand, Some Silt, Trace Roots/Grass
SS-01	W11	OU4-SS-01-12(1-6)	Side Yard	Brown F. M. Sand, Some Silt, Trace Roots/ F. Gravel
SS-01	W11	OU4-SS-01-13(1-6)	Side Yard	Brown Silt, Some F. M. Sand, Trace Roots/Wood
SS-01	W11	OU4-SS-01-14(1-6)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-15(1-6)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Coal
SS-01	W11	OU4-SS-01-15(1-6)-DUP	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Coal

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-01	W11	OU4-SS-01-COMP3(12-18)		
SS-01	W11	OU4-SS-01-11(12-18)	Side Yard	Brown F. M. Sand, Trace Roots/Grass/ F. Gravel
SS-01	W11	OU4-SS-01-12(12-18)	Side Yard	Gray/Brown F. M. Sand, Little Silt/Clay, Trace F. Gravel
SS-01	W11	OU4-SS-01-13(12-18)	Side Yard	Brown/Black F.M. Sand, Some Silt, Trace Roots/Brick/Coal
SS-01	W11	OU4-SS-01-14(12-18)	Side Yard	Brown/Orange/Black F. M. Sand, Little Gravel, Trace Brick/Coal
SS-01	W11	OU4-SS-01-15(12-18)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Coal
SS-01	W11	OU4-SS-01-COMP3(6-12)		
SS-01	W11	OU4-SS-01-11(6-12)	Side Yard	Brown F. M. Sand, Some Silt, Trace Roots/Grass/F. Gravel
SS-01	W11	OU4-SS-DUP-1	Side Yard	Brown F. M. Sand, Some Silt, Trace Roots/Grass/F. Gravel
SS-01	W11	OU4-SS-01-12(6-12)	Side Yard	Brown F. M. Sand, Some Silt, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-13(6-12)	Side Yard	Orange/Brown/Black F.M. Sand/Silt, Trace Roots/Wood/Brick/Coal
SS-01	W11	OU4-SS-01-14(6-12)	Side Yard	Brown F. M. Sand, Little C. Sand/F. Gravel
SS-01	W11	OU4-SS-01-15(6-12)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Coal
SS-01	W11	OU4-SS-01-COMP4(0-1)		
SS-01	W11	OU4-SS-01-16(0-1)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Grass/Slag Material
SS-01	W11	OU4-SS-01-17(0-1)	Side Yard	Brown F. M. Sand, Some Silt, Trace F. Gravel
SS-01	W11	OU4-SS-01-18(0-1)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-19(0-1)	Front/Side Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-20(0-1)	Front Yard	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-COMP4(1-6)		
SS-01	W11	OU4-SS-01-16(1-6)	Side Yard	Brown F. M. Sand, Little Silt, Trace Roots/Grass/Slag Material
SS-01	W11	OU4-SS-01-17(1-6)	Side Yard	Brown F. M. Sand, Some Silt, Trace F. Gravel
SS-01	W11	OU4-SS-01-18(1-6)	Side Yard	Gray/Brown Silt, Some F. M. Sand, Trace Roots
SS-01	W11	OU4-SS-01-19(1-6)	Front/Side Yard	Orange/Brown F. M. Sand, Some Silt, Trace Clay
SS-01	W11	OU4-SS-01-20(1-6)	Front Yard	Dark Brown Silt, Some F. M. Sand, Little C. Sand, Trace F. Gravel
SS-01	W11	OU4-SS-01-20(1-6)-DUP	Front Yard	Dark Brown Silt, Some F. M. Sand, Little C. Sand, Trace F. Gravel
SS-01	W11	OU4-SS-01-COMP4(12-18)		
SS-01	W11	OU4-SS-01-16(12-18)	Side Yard	Brown F.M. Sand Little Silt, F. Gravel
SS-01	W11	OU4-SS-DUP-2	Side Yard	Brown F.M. Sand Little Silt, F. Gravel
SS-01	W11	OU4-SS-01-17(12-18)	Side Yard	Orange/Brown Silt, Some F. M. Sand, Trace Roots/Wood/Orange Compacted Silt
SS-01	W11	OU4-SS-01-18(12-18)	Side Yard	Orange/Brown Silt Clay, Trace F. M. Sand/F. Gravel
SS-01	W11	OU4-SS-01-19(12-18)	Front/Side Yard	Orange/Dark Brown, F.M. Sand/Silt Clay
SS-01	W11	OU4-SS-01-20(12-18)	Front Yard	Dark Brown Silt, Some F. M. Sand, Little C. Sand, Trace F. Gravel
SS-01	W11	OU4-SS-01-COMP4(6-12)		
SS-01	W11	OU4-SS-01-16(6-12)	Side Yard	Brown F. M. Sand, Little Silt, Trace F. Gravel/Slag Like Material
SS-01	W11	OU4-SS-01-17(6-12)	Side Yard	Brown Silt, Little F.M. Sand, Trace Roots
SS-01	W11	OU4-SS-01-18(6-12)	Side Yard	Brown F. M. Sand, Some Silt, Trace Roots
SS-01	W11	OU4-SS-01-19(6-12)	Front/Side Yard	Orange Brown F. M. Sand, Some Silt, Trace Clay
SS-01	W11	OU4-SS-01-20(6-12)	Front Yard	Dark/Brown Silt, Some F. M. Sand, Little C. Sand, Trace F. Gravel
SS-01	W11	OU4-SS-01-COMP5(0-1)		
SS-01	W11	OU4-SS-01-21(0-1)	Drip Zone	Brown/Black Silt, Some F.M. Sand, Trace Roots
SS-01	W11	OU4-SS-01-22(0-1)	Drip Zone	Brown F.M. Sand , Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-23(0-1)	Drip Zone	Brown F.M. Sand, Some Silt, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-24(0-1)	Drip Zone	Brown F.M. Sand, Some Silt, Little C. Sand/F. Gravel, Trace Roots
SS-01	W11	OU4-SS-01-COMP5(1-6)		
SS-01	W11	OU4-SS-01-21(1-6)	Drip Zone	Brown/Black Silt, Some F. M. Sand, Trace Roots
SS-01	W11	OU4-SS-01-22(1-6)	Drip Zone	Brown F. M. Sand, Little Silt, Trace Roots
SS-01	W11	OU4-SS-01-23(1-6)	Drip Zone	Brown F. M. Sand, Some Silt, Trace Roots/F. Gravel
SS-01	W11	OU4-SS-01-24(1-6)	Drip Zone	Brown F. M. Sand, Some Silt, Little C. Sand/F. Gravel, Trace Roots
SS-01	W11	OU4-SS-01-COMP5(12-18)		
SS-01	W11	OU4-SS-01-21(12-18)	Drip Zone	Orange Brown Silt, Little Clay, Trace F.M. Sand/F. Gravel
SS-01	W11	OU4-SS-01-22(12-18)	Drip Zone	Orange Brown Silt, Little Clay, Trace F. Gravel
SS-01	W11	OU4-SS-01-23(12-18)	Drip Zone	Orange Brown Silt, Some Clay, Little F.M. Sand, Trace F. Gravel/Brick
SS-01	W11	OU4-SS-01-24(12-18)	Drip Zone	Orange Brown F. M. C. Sand, Some Silt, Little F. Gravel, Trace Roots
SS-01	W11	OU4-SS-01-COMP5(6-12)		
SS-01	W11	OU4-SS-01-21(6-12)	Drip Zone	Orange Brown Silt, Little Clay, Trace F. M. Sand/F. Gravel
SS-01	W11	OU4-SS-01-22(6-12)	Drip Zone	Brown Silt, Little F. M. Sand, Trace Coal/F. Gravel/Wood
SS-01	W11	OU4-SS-01-23(6-12)	Drip Zone	Orange/Brown F. M. Sand/Silt, Some Clay/Silt, Trace F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-01	W11	OU4-SS-01-24(6-12)	Drip Zone	Orange/Brown F. M. Sand, Some Silt, Little C. Sand/F. Gravel
SS-01	W11	OU4-SS-01-24(6-12)-DUP	Drip Zone	Orange/Brown F. M. Sand, Some Silt, Little C. Sand/F. Gravel
SS-02	S11	OU4-SS-02-COMP1(0-1)		
SS-02	S11	OU4-SS-02-01(0-1)	Front Yard	Brown/Black Silt, Some F. M. Sand, Trace Roots
SS-02	S11	OU4-SS-02-02(0-1)	Front Yard	Brown Silt, Some F. M. Sand, Little F. Gravel, Trace Roots
SS-02	S11	OU4-SS-02-03(0-1)	Front Yard	Brown F. Sand/Silt , Trace Roots
SS-02	S11	OU4-SS-02-04(0-1)	Front Yard	Dark Brown F. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-COMP1(1-6)		
SS-02	S11	OU4-SS-02-01(1-6)	Front Yard	Brown/Black Silt, Some F. M. Sand, Trace C. Sand/F. Gravel/Roots
SS-02	S11	OU4-SS-02-02(1-6)	Front Yard	Gray/Brown F. Sand/Silt , Some M. Sand, Little F. Gravel, Trace Roots
SS-02	S11	OU4-SS-02-03(1-6)	Front Yard	Brown/Gray F. C. Sand/Silt, Trace Roots
SS-02	S11	OU4-SS-02-04(1-6)	Front Yard	Dark Brown F. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-COMP1(12-18)		
SS-02	S11	OU4-SS-02-01(12-18)	Front Yard	Brown Black Silt, Little F.M. Sand, Trace C. Sand/F. Gravel/Roots
SS-02	S11	OU4-SS-02-02(12-18)	Front Yard	Gray F. Sand/Silt, Some M. Sand, Little Brick/Gravel
SS-02	S11	OU4-SS-02-03(12-18)	Front Yard	Orange Brown/F.M. Sand, Some Silt, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-04(12-18)	Front Yard	Dark Brown F.Sand/Silt/Clay, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-COMP1(6-12)		
SS-02	S11	OU4-SS-02-01(6-12)	Front Yard	Brown Silt, Little F. M. Sand
SS-02	S11	OU4-SS-02-02(6-12)	Front Yard	Gray/Brown F. Sand, Some M. Sand, Little Brick, Gravel
SS-02	S11	OU4-SS-02-03(6-12)	Front Yard	Orange/Brown/Gray F.M.C. Sand, Some Silt, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-04(6-12)	Front Yard	Dark Brown F. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-COMP2(0-1)		
SS-02	S11	OU4-SS-02-05(0-1)	Back Yard	Orange Brown F.M. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-06(0-1)	Back Yard	Light Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-07(0-1)	Back Yard	Gray Brown Silt, Some F.M. Sand, Trace Roots
SS-02	S11	OU4-SS-02-08(0-1)	Back Yard	Gray Brown Silt, Some F.M. Sand, Trace Roots
SS-02	S11	OU4-SS-02-09(0-1)	Back Yard	Gray Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-COMP2(1-6)		
SS-02	S11	OU4-SS-02-05(1-6)	Back Yard	Orange Brown F. M. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-06(1-6)	Back Yard	Light Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-07(1-6)	Back Yard	Gray Brown Silt, Some F.M. Sand, Trace Roots
SS-02	S11	OU4-SS-02-08(1-6)	Back Yard	Gray Brown/Orange Brown Silt, Some F. M. Sand , Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-09(1-6)	Back Yard	Gray Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-COMP2(12-18)		
SS-02	S11	OU4-SS-02-05(12-18)	Back Yard	Brown Silt, Some F.M. Sand, Little Wood/Wood Debris
SS-02	S11	OU4-SS-02-06(12-18)	Back Yard	Dark Orange Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-07(12-18)	Back Yard	Orange Brown Silt, Little F. M. Sand, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-08(12-18)	Back Yard	Orange Brown Silt, Some F.M. Sand, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-09(12-18)	Back Yard	Orange/Brown F. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-09(12-18)-DUP	Back Yard	Orange/Brown F. Sand, Some Silt, Trace Roots
SS-02	S11	OU4-SS-02-COMP2(6-12)		
SS-02	S11	OU4-SS-02-05(6-12)	Back Yard	Orange Brown F. M. Sand/Silt, Little Wood/Wood Debris, Trace Roots
SS-02	S11	OU4-SS-02-06(6-12)	Back Yard	Dark Orange Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-07(6-12)	Back Yard	Orange Brown Silt, Some F. Sand, Little M. Sand, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-08(6-12)	Back Yard	Gray Brown/Orange Brown Silt, Some F. M. Sand , Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-09(6-12)	Back Yard	Gray Brown/ Brown F. Sand/Silt, Trace Roots
SS-02	S11	OU4-SS-02-COMP3(0-1)		
SS-02	S11	OU4-SS-02-10(0-1)	Back Yard Central	Brown F. Sand, Some Silt, Trace Roots/Wood Debris/F. Gravel
SS-02	S11	OU4-SS-02-11(0-1)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-12(0-1)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-13(0-1)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots/Wood Debris

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-02	S11	OU4-SS-02-14(0-1)	Back Yard Central	Brown Silt, Some F. Sand Trace Roots
SS-02	S11	OU4-SS-02-COMP3(1-6)		
SS-02	S11	OU4-SS-02-10(1-6)	Back Yard Central	Brown F. Sand, Some Silt, Trace Roots/Wood Debris/F. Gravel
SS-02	S11	OU4-SS-02-11(1-6)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-12(1-6)	Back Yard Central	Brown/Orange Brown Silt, Some F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-13(1-6)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-14(1-6)	Back Yard Central	Brown/Dark Brown Silt, Some F. Sand, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-COMP3(12-18)		
SS-02	S11	OU4-SS-02-10(12-18)	Back Yard Central	Dark Brown F. Sand, Some Silt, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-11(12-18)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-12(12-18)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-13(12-18)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-14(12-18)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-COMP3(6-12)		
SS-02	S11	OU4-SS-02-10(6-12)	Back Yard Central	Brown/Dark Brown F. Sand, Some Silt, Trace Roots/Wood Debris/F. Gravel/Black Fines
SS-02	S11	OU4-SS-02-11(6-12)	Back Yard Central	Brown Black/Brown Silt, /F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-12(6-12)	Back Yard Central	Orange Brown/Brown/Brick Silt, Some F. Sand, Trace Roots/Wood Debris/Black Fines
SS-02	S11	OU4-SS-02-13(6-12)	Back Yard Central	Brown Silt, Some F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-14(6-12)	Back Yard Central	Dark Brown/Orange Brown Silt, Little F. Sand, Trace Roots/Clay/Black Fines
SS-02	S11	OU4-SS-02-COMP4(0-1)		
SS-02	S11	OU4-SS-02-15(0-1)	Back Yard	Gray/Brown F. Sand, Little Silt, Trace F. Sand, (8-9) Orange Staining
SS-02	S11	OU4-SS-02-16(0-1)	Back Yard	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-17(0-1)	Back Yard	Brown Silt, F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-18(0-1)	Back Yard By Alley	Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-02	S11	OU4-SS-02-19(0-1)	Back Yard By Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-COMP4(1-6)		
SS-02	S11	OU4-SS-02-15(1-6)	Back Yard	Gray/Brown F. Sand, Little Silt
SS-02	S11	OU4-SS-02-16(1-6)	Back Yard	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-17(1-6)	Back Yard	Brown Silt, Little F. Sand. Trace Roots
SS-02	S11	OU4-SS-02-18(1-6)	Back Yard By Alley	Brown/Dark Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots/C. Sand
SS-02	S11	OU4-SS-02-19(1-6)	Back Yard By Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-19(1-6)-DUP	Back Yard By Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-COMP4(12-18)		
SS-02	S11	OU4-SS-02-15(12-18)	Back Yard	Brown/Black Silt, Little F. Sand, Trace Black Fines/Wood
SS-02	S11	OU4-SS-02-16(12-18)	Back Yard	Orange Brown Silt, Little F. Sand, Trace Clay/F. Gravel
SS-02	S11	OU4-SS-02-17(12-18)	Back Yard	Orange Brown Silt/Clay, Little F. Sand, Trace Black Fines/Roots
SS-02	S11	OU4-SS-02-18(12-18)	Back Yard By Alley	Orange Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-19(12-18)	Back Yard By Alley	Orange Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-COMP4(6-12)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-02	S11	OU4-SS-02-15(6-12)	Back Yard	Brown/Black Silt, Little Gray/Brown F. Sand, Trace Wood/Black Fines (8-9" Orange Staining)
SS-02	S11	OU4-SS-02-16(6-12)	Back Yard	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-17(6-12)	Back Yard	Brown Silt, Little F. Sand. Trace Roots
SS-02	S11	OU4-SS-02-18(6-12)	Back Yard By Alley	Brown/Dark Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots/C. Sand
SS-02	S11	OU4-SS-02-19(6-12)	Back Yard By Alley	Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-02	S11	OU4-SS-02-COMP5(0-1)		
SS-02	S11	OU4-SS-02-20(0-1)	Drip Zone 20, North of House	Brown Silt, Some F. Sand, Trace Roots/C. Sand/Wood Debris
SS-02	S11	OU4-SS-02-21(0-1)	Drip Zone 21, North of House	Gray Brown F. Sand, Some Silt, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-22(0-1)	Drip Zone 22, South of House	Brown Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-23(0-1)	Drip Zone 23, East of House	Brown/Black Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-COMP5(1-6)		
SS-02	S11	OU4-SS-02-20(1-6)	Drip Zone 20, North of House	Brown Silt, Some F. Sand, Trace Roots/C. Sand/Wood Debris
SS-02	S11	OU4-SS-02-21(1-6)	Drip Zone 21, North of House	Gray Brown/Orange Brown F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-22(1-6)	Drip Zone 22, South of House	Brown/Brown Orange Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-23(1-6)	Drip Zone 23, East of House	Brown/Black Silt, Some F. Sand, Trace Roots
SS-02	S11	OU4-SS-02-COMP5(12-18)		
SS-02	S11	OU4-SS-02-20(12-18)	Drip Zone 20, North of House	Orange Brown Silt, Some F. Sand, Little Clay, Trace Wood Debris
SS-02	S11	OU4-SS-02-21(12-18)	Drip Zone 21, North of House	Orange Brown Silt, Some Clay/F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-22(12-18)	Drip Zone 22, South of House	Brown/Black/Orange Brown Silt/Clay, Little F. Sand, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-23(12-18)	Drip Zone 23, East of House	Brown/Orange Silt, Some F. Sand, Little Clay
SS-02	S11	OU4-SS-02-COMP5(6-12)		
SS-02	S11	OU4-SS-02-20(6-12)	Drip Zone 20, North of House	Brown/Orange Brown Silt, Some F. Sand, Little Clay, Trace Roots/C. Sand/Wood Debris
SS-02	S11	OU4-SS-02-21(6-12)	Drip Zone 21, North of House	Orange Brown Silt, Some F. Sand, Trace Roots/Wood Debris
SS-02	S11	OU4-SS-02-22(6-12)	Drip Zone 22, South of House	Brown Orange/Brown/Black Silt, Some F. Sand/Clay, Trace Roots/Black Fines
SS-02	S11	OU4-SS-02-23(6-12)	Drip Zone 23, East of House	Brown/Orange Silt, Some F. Sand, Little Clay
SS-02	S11	OU4-SS-02-23(6-12)-DUP	Drip Zone 23, East of House	Brown/Orange Silt, Some F. Sand, Little Clay
SS-03	S16	OU4-SS-03-COMP1(0-1)		
SS-03	S16	OU4-SS-03-01(0-1)	Front Yard, Southeast Corner of Yard	Brown Silt, Some F. Sand, Little Organics
SS-03	S16	OU4-SS-03-02(0-1)	Front Yard, South of House	Orange Brown Silt, Some F. Sand, Little Organics
SS-03	S16	OU4-SS-03-03(0-1)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-04(0-1)	Front Yard, Southwest of House	Gray/Brown Silt, Some F. Sand, Trace Roots/Gravel
SS-03	S16	OU4-SS-03-05(0-1)	Front Yard, Southwest Corner of Yard	Dark Brown Silt, Trace Organics/Roots
SS-03	S16	OU4-SS-03-COMP1(1-6)		
SS-03	S16	OU4-SS-03-01(1-6)	Front Yard, Southeast Corner of Yard	Brown Silt, Some F. Sand, Little Organics

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-03	S16	OU4-SS-03-02(1-6)	Front Yard, South of House	Orange Brown Silt, Some F. Sand, Little Organics
SS-03	S16	OU4-SS-03-03(1-6)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-04(1-6)	Front Yard, Southwest of House	Gray/Brown Silt, Some F. Sand, Trace Roots/Gravel
SS-03	S16	OU4-SS-03-05(1-6)	Front Yard, Southwest Corner of Yard	Dark Brown/Orange Brown Silt, Some F. Sand, Trace Organics/Silt
SS-03	S16	OU4-SS-03-COMP1(12-18)		
SS-03	S16	OU4-SS-03-01(12-18)	Front Yard, Southeast Corner of Yard	Orange Brown/Light Brown Silt/F. Sand, Trace Gravel
SS-03	S16	OU4-SS-03-02(12-18)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-03(12-18)	Front Yard, South of House	Light Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-04(12-18)	Front Yard, Southwest of House	Orange Brown Silt/F.Sand, Trace Slag Chunks/Fine Sections
SS-03	S16	OU4-SS-03-05(12-18)	Front Yard, Southwest Corner of Yard	Orange Brown Silt/F. Sand, Trace Gravel
SS-03	S16	OU4-SS-03-COMP1(6-12)		
SS-03	S16	OU4-SS-03-01(6-12)	Front Yard, Southeast Corner of Yard	Light Brown Silt, Some F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-02(6-12)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-03(6-12)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-04(6-12)	Front Yard, Southwest of House	Orange Brown/Dark Gray Silt, Some F. Sand/Gravel
SS-03	S16	OU4-SS-03-05(6-12)	Front Yard, Southwest Corner of Yard	Orange Brown Silt, Some F. Sand
SS-03	S16	OU4-SS-03-COMP2(0-1)		
SS-03	S16	OU4-SS-03-06(0-1)	Side Yard, Westside of House	Gray/Brown Silt, Some F.M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-07(0-1)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-08(0-1)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-09(0-1)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-10(0-1)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-COMP2(1-6)		
SS-03	S16	OU4-SS-03-06(1-6)	Side Yard, Westside of House	Gray/Brown Silt, Some F.M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-07(1-6)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-08(1-6)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-03	S16	OU4-SS-03-09(1-6)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-10(1-6)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-10(1-6)-DUP	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-COMP2(12-18)		
SS-03	S16	OU4-SS-03-06(12-18)	Side Yard, Westside of House	Brown/Dark Brown Silt, Some F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-07(12-18)	Side Yard, Westside of House	Orange Brown/Dark Brown Silt, Little F. M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-08(12-18)	Side Yard, Westside of House	Orange Brown Silt, Little F. M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-09(12-18)	Side Yard, Westside of House	Dark Orange/Brown Silt, Little F.M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-10(12-18)	Side Yard, Westside of House	Orange/Brown/Dark Brown/Black Silt, Little F.M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-COMP2(6-12)		
SS-03	S16	OU4-SS-03-06(6-12)	Side Yard, Westside of House	Brown/Gray Brown Silt, Some F. M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-07(6-12)	Side Yard, Westside of House	Gray Brown/Dark Brown Silt, Little F.M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-08(6-12)	Side Yard, Westside of House	Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-09(6-12)	Side Yard, Westside of House	Gray/Brown/Dark Orange Silt, Little F.M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-10(6-12)	Side Yard, Westside of House	Gray/Brown/Orange Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-COMP3(0-1)		
SS-03	S16	OU4-SS-03-11(0-1)	Back Yard, Northwest Corner of Yard	Light Brown Silt, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-12(0-1)	Back Yard, Northwest of House	Light Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-13(0-1)	Back Yard, North of House	Light Brown Silt, Some Organics/Roots, Trace F. Gravel
SS-03	S16	OU4-SS-03-14(0-1)	Back Yard, North of House	Light Brown Silt, Trace Roots/Gravel
SS-03	S16	OU4-SS-03-15(0-1)	Back Yard, Northeast Corner of Yard	Gray Brown Silt/F. Sand, Trace Brick
SS-03	S16	OU4-SS-03-COMP3(1-6)		
SS-03	S16	OU4-SS-03-11(1-6)	Back Yard, Northwest Corner of Yard	Light Brown Silt, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-12(1-6)	Back Yard, Northwest of House	Light Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-13(1-6)	Back Yard, North of House	Light Brown Silt/F. Sand, Some Organics/Roots, Trace F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-03	S16	OU4-SS-03-14(1-6)	Back Yard, North of House	Light Brown/Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-03	S16	OU4-SS-03-15(1-6)	Back Yard, Northeast Corner of Yard	Gray Brown Silt/F. Sand, Trace Brick
SS-03	S16	OU4-SS-03-COMP3(12-18)		
SS-03	S16	OU4-SS-03-11(12-18)	Back Yard, Northwest Corner of Yard	Light Brown/Orange Brown Silt, Some F. Sand, Trace F. Gravel
SS-03	S16	OU4-SS-03-12(12-18)	Back Yard, Northwest of House	Dark Brown Silt/F. Sand, Trace Slag
SS-03	S16	OU4-SS-03-13(12-18)	Back Yard, North of House	Dark Brown Silt/F. Sand, Trace F. Gravel/Slag
SS-03	S16	OU4-SS-DUP-3	Back Yard, North of House	Dark Brown Silt/F. Sand, Trace F. Gravel/Slag
SS-03	S16	OU4-SS-03-14(12-18)	Back Yard, North of House	Gray/Brown Silt/F. Sand, Trace Organics/Gravel
SS-03	S16	OU4-SS-03-15(12-18)	Back Yard, Northeast Corner of Yard	Dark Gray/Black F. Sand/Light Brown Silt, Some Slag
SS-03	S16	OU4-SS-03-COMP3(6-12)		
SS-03	S16	OU4-SS-03-11(6-12)	Back Yard, Northwest Corner of Yard	Light Brown Silt, Some F. Sand, Trace Small Slag
SS-03	S16	OU4-SS-03-12(6-12)	Back Yard, Northwest of House	Light Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-13(6-12)	Back Yard, North of House	Light Brown/Dark Brown Silt/F. Sand, Trace Roots/F. Gravel/Slag
SS-03	S16	OU4-SS-03-14(6-12)	Back Yard, North of House	Light Gray/Gray/Brown Silt/F. Sand, Trace Gravel
SS-03	S16	OU4-SS-03-15(6-12)	Back Yard, Northeast Corner of Yard	Dark Gray Black F. Sand/ Some Slag
SS-03	S16	OU4-SS-03-15(6-12)-DUP	Back Yard, Northeast Corner of Yard	Dark Gray Black F. Sand/ Some Slag
SS-03	S16	OU4-SS-03-COMP4(0-1)		
SS-03	S16	OU4-SS-03-16(0-1)	Drip Zone, Northeast Corner of House	Brown Silt, Some F. Sand, Trace Roots/Brick/Fines
SS-03	S16	OU4-SS-03-17(0-1)	Drip Zone, East of House	Brown/Black Silt, Little F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-18(0-1)	Drip Zone, Southwest Corner of House	Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-DUP-4	Drip Zone, Southwest Corner of House	Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-19(0-1)	Drip Zone, West of House	Brown Silt, Little F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-COMP4(1-6)		
SS-03	S16	OU4-SS-03-16(1-6)	Drip Zone, Northeast Corner of House	Brown/Dark Brown Silt, Some F. Sand, Trace Roots/Black Fines
SS-03	S16	OU4-SS-03-17(1-6)	Drip Zone, East of House	Brown/Black Silt, Little F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-18(1-6)	Drip Zone, Southwest Corner of House	Brown/Black/Orange Brown Silt/Clay, Little F. Sand, Trace Roots/F. Gravel
SS-03	S16	OU4-SS-03-19(1-6)	Drip Zone, West of House	Brown Silt, Little F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-COMP4(12-18)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-03	S16	OU4-SS-03-16(12-18)	Drip Zone, Northeast Corner of House	Brown Silt, Some F.M. Sand, Trace Roots
SS-03	S16	OU4-SS-03-17(12-18)	Drip Zone, East of House	Brown/Black Silt, Little F. Sand, Trace Black Fines/Coal/Roots
SS-03	S16	OU4-SS-03-18(12-18)	Drip Zone, Southwest Corner of House	Orange Brown/Black Silt/Clay, Trace Roots
SS-03	S16	OU4-SS-03-19(12-18)	Drip Zone, West of House	Brown/Orange Silt/Clay, Little F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-COMP4(6-12)		
SS-03	S16	OU4-SS-03-16(6-12)	Drip Zone, Northeast Corner of House	Brown/Dark Brown Silt, Some F. Sand, Trace Roots/Black Fines
SS-03	S16	OU4-SS-03-17(6-12)	Drip Zone, East of House	Brown/Black Silt, Little F. Sand, Trace Roots
SS-03	S16	OU4-SS-03-18(6-12)	Drip Zone, Southwest Corner of House	Orange/Brown Silt/Clay, Trace Roots
SS-03	S16	OU4-SS-03-19(6-12)	Drip Zone, West of House	Brown/Orange Silt/Clay, Little F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-COMP1(0-1)		
SS-04	E06	OU4-SS-04-01(0-1)	Front Yard, Southwest of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-02(0-1)	Front of House, Westside	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-03(0-1)	Front Yard, South of House	Brown Silt, Some F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-04(0-1)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots/ F. Gravel
SS-04	E06	OU4-SS-04-05(0-1)	Front Yard, South of House Infront of Shed	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-COMP1(1-6)		
SS-04	E06	OU4-SS-04-01(1-6)	Front Yard, Southwest of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-02(1-6)	Front of House, Westside	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-03(1-6)	Front Yard, South of House	Brown Silt, Some F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-04(1-6)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots/ F. Gravel
SS-04	E06	OU4-SS-04-05(1-6)	Front Yard, South of House Infront of Shed	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-05(1-6)-DUP	Front Yard, South of House Infront of Shed	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-COMP1(12-18)		
SS-04	E06	OU4-SS-04-01(12-18)	Front Yard, Southwest of House	Gray/Brown Silt, Little F. Sand
SS-04	E06	OU4-SS-04-02(12-18)	Front of House, Westside	Dark Brown/Orange Brown Silt, Some F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-03(12-18)	Front Yard, South of House	Dark Brown Silt/Clay, Some F. Sand
SS-04	E06	OU4-SS-04-04(12-18)	Front Yard, South of House	Light Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-05(12-18)	Front Yard, South of House Infront of Shed	Light Brown/Dark Brown Silt, Little F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-COMP1(6-12)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-04	E06	OU4-SS-04-01(6-12)	Front Yard, Southwest of House	Orange/Brown Silt, Some F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-02(6-12)	Front of House, Westside	Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-03(6-12)	Front Yard, South of House	Brown Silt, Some F. Sand, Trace Roots/Black Fines
SS-04	E06	OU4-SS-04-04(6-12)	Front Yard, South of House	Light Brown Silt, Some F. Sand, Trace Roots/ F. Gravel
SS-04	E06	OU4-SS-04-05(6-12)	Front Yard, South of House Infront of Shed	Brown/Light Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-05(6-12)-DUP	Front Yard, South of House Infront of Shed	Brown/Light Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-COMP2(0-1)		
SS-04	E06	OU4-SS-04-06(0-1)	Side Yard, North of House, Left of Driveway	Light Brown F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-07(0-1)	Side Yard, North of House	Light Gray Brown Silt/F. Sand, Trace Roots/F. Gravel/Slag
SS-04	E06	OU4-SS-04-08(0-1)	Side Yard, North of House	Light Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-09(0-1)	Side Yard, North of House	Gray/Brown Silt, Some F. Sand, Trace Roots, F. Gravel
SS-04	E06	OU4-SS-04-10(0-1)	Side Yard North of House, Closest to Oak Street	Gray Brown Silt, Some F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-COMP2(1-6)		
SS-04	E06	OU4-SS-04-06(1-6)	Side Yard, North of House, Left of Driveway	Light Brown F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-07(1-6)	Side Yard, North of House	Light Gray Brown Silt/F. Sand, Trace Roots/F. Gravel/Slag
SS-04	E06	OU4-SS-04-08(1-6)	Side Yard, North of House	Light Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-09(1-6)	Side Yard, North of House	Gray/Brown Silt, Some F. Sand, Trace Roots, F. Gravel
SS-04	E06	OU4-SS-04-10(1-6)	Side Yard North of House, Closest to Oak Street	Gray Brown Silt, Some F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-COMP2(12-18)		
SS-04	E06	OU4-SS-04-06(12-18)	Side Yard, North of House, Left of Driveway	Dark Brown Silt/F. Sand, Trace Gravel
SS-04	E06	OU4-SS-04-07(12-18)	Side Yard, North of House	Light Brown Silt, Trace Organics
SS-04	E06	OU4-SS-04-08(12-18)	Side Yard, North of House	Orange Brown/Dark Gray Brown Silt, Trace F. Gravel
SS-04	E06	OU4-SS-04-09(12-18)	Side Yard, North of House	Orange Brown Silt, Some F. Sand, Trace Organics/Roots
SS-04	E06	OU4-SS-04-10(12-18)	Side Yard North of House, Closest to Oak Street	Orange/Brown Silt, Some F. Sand, Trace Gravel
SS-04	E06	OU4-SS-04-COMP2(6-12)		
SS-04	E06	OU4-SS-04-06(6-12)	Side Yard, North of House, Left of Driveway	Light Brown/Dark Brown Silt/F. Sand,Trace Gravel
SS-04	E06	OU4-SS-04-07(6-12)	Side Yard, North of House	Light Brown Silt, Trace Organics

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-04	E06	OU4-SS-04-08(6-12)	Side Yard, North of House	Gray Brown/Orange Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-09(6-12)	Side Yard, North of House	Orange Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-10(6-12)	Side Yard North of House, Closest to Oak Street	Orange Brown F. Sand, Trace F. Gravel
SS-04	E06	OU4-SS-04-COMP3(0-1)		
SS-04	E06	OU4-SS-04-11(0-1)	Side Yard, Northeast of House	Gray/Brown Silt/F. Sand, Trace Organic/F. Gravel
SS-04	E06	OU4-SS-04-12(0-1)	Side Yard, Northeast of House	Gray/Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-13(0-1)	Side Yard, Northeast of House	Gray Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-14(0-1)	Side Yard, Northeast of House	Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-15(0-1)	Side Yard, Northeast of House	Gray Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-COMP3(1-6)		
SS-04	E06	OU4-SS-04-11(1-6)	Side Yard, Northeast of House	Gray/Brown Silt/ Orange/Brown F. Sand, Trace Roots/Organics/F. Gravel
SS-04	E06	OU4-SS-04-12(1-6)	Side Yard, Northeast of House	Gray/Brown/Orange Silt, Some F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-13(1-6)	Side Yard, Northeast of House	Gray Brown/ Orange Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-14(1-6)	Side Yard, Northeast of House	Gray Brown Silt/Light Gray Brown F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-15(1-6)	Side Yard, Northeast of House	Gray Brown Silt/Orange Brown F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP3(12-18)		
SS-04	E06	OU4-SS-04-11(12-18)	Side Yard, Northeast of House	Orange Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-12(12-18)	Side Yard, Northeast of House	Orange/Brown Silt, Trace F. Sand/F. Gravel
SS-04	E06	OU4-SS-04-13(12-18)	Side Yard, Northeast of House	Orange Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-14(12-18)	Side Yard, Northeast of House	Orange Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-15(12-18)	Side Yard, Northeast of House	Orange Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-COMP3(6-12)		
SS-04	E06	OU4-SS-04-11(6-12)	Side Yard, Northeast of House	Orange/Brown/Orange Brown F.Sand/Silt, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-12(6-12)	Side Yard, Northeast of House	Orange/Brown Silt/F. Sand, Trace F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-04	E06	OU4-SS-04-13(6-12)	Side Yard, Northeast of House	Orange Brown F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-14(6-12)	Side Yard, Northeast of House	Light Gary Brown/Orange Brown Silt/F. Sand , Trace Gravel
SS-04	E06	OU4-SS-04-15(6-12)	Side Yard, Northeast of House	Orange Brown Silt/F. Sand, Trace Gravel
SS-04	E06	OU4-SS-04-COMP4(0-1)		
SS-04	E06	OU4-SS-04-16(0-1)	Back Yard, East of House	Light Gray F. Sand/Gravel, Trace Roots
SS-04	E06	OU4-SS-04-17(0-1)	Back Yard, Northeast of House Infront of Barn	Light Gray F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-18(0-1)	Back Yard, East of House Infront of Deck	Light Gray F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-19(0-1)	Back Yard, East of House	Gray Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-20(0-1)	Back Yard, East of House Infront of Dog House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-20(0-1)-DUP	Back Yard, East of House Infront of Dog House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP4(1-6)		
SS-04	E06	OU4-SS-04-16(1-6)	Back Yard, East of House	Light Gray/Dark Gray F. Sand/Gravel, Trace Roots/Silt/F. Gravel
SS-04	E06	OU4-SS-04-17(1-6)	Back Yard, Northeast of House Infront of Barn	Light Gray/Gray Brown F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-18(1-6)	Back Yard, East of House Infront of Deck	Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-19(1-6)	Back Yard, East of House	Gray Brown/Dark Gray Brown Silt/F. Sand, Trace Roots/Gravel/Slag
SS-04	E06	OU4-SS-04-20(1-6)	Back Yard, East of House Infront of Dog House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP4(12-18)		
SS-04	E06	OU4-SS-04-16(12-18)	Back Yard, East of House	Orange Brown Silt, Trace Gravel
SS-04	E06	OU4-SS-04-17(12-18)	Back Yard, Northeast of House Infront of Barn	Orange Brown Silt, Trace Gravel
SS-04	E06	OU4-SS-04-18(12-18)	Back Yard, East of House Infront of Deck	Dark Gray/Gray/Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-19(12-18)	Back Yard, East of House	Dark Gray Brown/Light Gray Brown Silt/F.Sand, Trace Gravel/Roots/Slag
SS-04	E06	OU4-SS-04-20(12-18)	Back Yard, East of House Infront of Dog House	Gray/Brown Silt, Trace F. Sand/Gravel
SS-04	E06	OU4-SS-04-COMP4(6-12)		
SS-04	E06	OU4-SS-04-16(6-12)	Back Yard, East of House	Dark Gray/Gray Brown F.Sand/Orange Brown Silt, Trace Roots/F. Gravel
SS-04	E06	OU4-SS-04-17(6-12)	Back Yard, Northeast of House Infront of Barn	Gray/Brown/Orange Brown F. Sand, Trace Roots/Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-04	E06	OU4-SS-04-18(6-12)	Back Yard, East of House Infront of Deck	Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-19(6-12)	Back Yard, East of House	Dark Gray Brown Silt/F. Sand, Trace Gravel/Slag
SS-04	E06	OU4-SS-04-20(6-12)	Back Yard, East of House Infront of Dog House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP5(0-1)		
SS-04	E06	OU4-SS-04-21 (0-1)	Backyard/Garden Southeast of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-22 (0-1)	Backyard/Garden Southeast of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-23 (0-1)	Backyard/Garden Southeast of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP5(1-6)		
SS-04	E06	OU4-SS-04-21 (1-6)	Backyard/Garden Southeast of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-22 (1-6)	Backyard/Garden Southeast of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-23(1-6)	Backyard/Garden Southeast of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP5(12-18)		
SS-04	E06	OU4-SS-04-21 (12-18)	Backyard/Garden Southeast of House	Orange Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-22 (12-18)	Backyard/Garden Southeast of House	Light Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-23 (12-18)	Backyard/Garden Southeast of House	Light Brown Silt, Trace F. Sand
SS-04	E06	OU4-SS-04-COMP5(6-12)		
SS-04	E06	OU4-SS-04-21 (6-12)	Backyard/Garden Southeast of House	Dark Brown/Orange Brown Silt/F.Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-22 (6-12)	Backyard/Garden Southeast of House	Dark Brown/Light Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-23(6-12)	Backyard/Garden Southeast of House	Dark Brown/Light Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP6(0-1)		
SS-04	E06	OU4-SS-04-24(0-1)	Drip Zone, North of House	Light Gray Gravel
SS-04	E06	OU4-SS-04-25(0-1)	Drip Zone, North of House, Closest to Oak Street	Light Gray Gravel/F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-26(0-1)	Drip Zone, South of House, Closest to Oak Street	Light Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-27(0-1)	Drip Zone, South of House	Dark Gray/Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP6(1-6)		
SS-04	E06	OU4-SS-04-24(1-6)	Drip Zone, North of House	Light Gray Gravel/Dark Brown Silt/F. Sand, Trace Organics

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-04	E06	OU4-SS-04-25(1-6)	Drip Zone, North of House, Closest to Oak Street	Light Gray Gravel/F. Sand/Orange Brown Silt/F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-26(1-6)	Drip Zone, South of House, Closest to Oak Street	Light Brown/Dark Gray Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-27(1-6)	Drip Zone, South of House	Dark Gray/Brown Silt/F. Sand, Trace Roots/Gravel
SS-04	E06	OU4-SS-04-COMP6(12-18)		
SS-04	E06	OU4-SS-04-24(12-18)	Drip Zone, North of House	Orange Brown Silt
SS-04	E06	OU4-SS-04-25(12-18)	Drip Zone, North of House, Closest to Oak Street	Light Brown Silt, Trace Organics
SS-04	E06	OU4-SS-04-26(12-18)	Drip Zone, South of House, Closest to Oak Street	Dark Gray/Orange Brown Silt/F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-27(12-18)	Drip Zone, South of House	Orange Brown Silt, Trace F. Sand/Gravel/Slag
SS-04	E06	OU4-SS-04-COMP6(6-12)		
SS-04	E06	OU4-SS-04-24(6-12)	Drip Zone, North of House	Dark Brown/Orange Brown Silt/F. Sand, Trace Organics
SS-04	E06	OU4-SS-04-25(6-12)	Drip Zone, North of House, Closest to Oak Street	Orange Brown Silt/F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-26(6-12)	Drip Zone, South of House, Closest to Oak Street	Dark Gray Silt/F. Sand, Trace Roots
SS-04	E06	OU4-SS-04-27(6-12)	Drip Zone, South of House	Orange Brown Silt, Trace F. Sand/Gravel/Slag
SS-05	W05	OU4-SS-05-15(0-1)	Backyard Near Garage in Garden Plot	Dark Brown Silt, Trace F. Sand/Organics/Roots/Gravel
SS-05	W05	OU4-SS-05-15(1-6)	Backyard Near Garage in Garden Plot	Dark Brown Silt, Trace F. Sand/Organics/Roots/Gravel
SS-05	W05	OU4-SS-05-15(12-18)	Backyard Near Garage in Garden Plot	Orange Brown Silt/F. Sand, Trace F. Gravel
SS-05	W05	OU4-SS-05-15(6-12)	Backyard Near Garage in Garden Plot	Dark Brown Silt/F. Sand, Trace Wood/Gravel
SS-05	W05	OU4-SS-05-COMP1(0-1)		
SS-05	W05	OU4-SS-05-01(0-1)	Front Yard, East of House	Dark Gray/Brown F. Sand, Trace Roots/F. Gravel
SS-05	W05	OU4-SS-05-02(0-1)	Front Yard, East of House	Dark Gray F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-03(0-1)	Front Yard, East of House	Dark Gray F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-04(0-1)	Front Yard, East of House, Front/Side Yard	Dark Gray/Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-05(0-1)	Side Yard, North of House	Dark Gray Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-05(0-1)-DUP	Side Yard, North of House	Dark Gray Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-COMP1(1-6)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-05	W05	OU4-SS-05-01(1-6)	Front Yard, East of House	Dark Gray/Brown/Light Brown F. Sand, Trace Roots/Silt/Gravel
SS-05	W05	OU4-SS-05-02(1-6)	Front Yard, East of House	Dark Gray/Orange Brown F. Sand, Trace Roots/Silt/Gravel
SS-05	W05	OU4-SS-05-03(1-6)	Front Yard, East of House	Dark Gray/Orange/Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-04(1-6)	Front Yard, East of House, Front/Side Yard	Dark Gray/Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-05(1-6)	Side Yard, North of House	Dark Gray Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-COMP1(12-18)		
SS-05	W05	OU4-SS-05-01(12-18)	Front Yard, East of House	Light Brown/Dark Brown Silt/F. Sand, Trace Gravel
SS-05	W05	OU4-SS-05-02(12-18)	Front Yard, East of House	Orange Brown F. Sand/Dark Gray Brown Silt, Trace Gravel
SS-05	W05	OU4-SS-05-03(12-18)	Front Yard, East of House	Gray Brown Silt/F. Sand
SS-05	W05	OU4-SS-05-04(12-18)	Front Yard, East of House, Front/Side Yard	Gray/Orange/Brown Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-05(12-18)	Side Yard, North of House	Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-COMP1(6-12)		
SS-05	W05	OU4-SS-05-01(6-12)	Front Yard, East of House	Light Brown F. Sand, Trace Silt/Gravel
SS-05	W05	OU4-SS-05-02(6-12)	Front Yard, East of House	Orange Brown F. Sand, Trace Silt/Gravel
SS-05	W05	OU4-SS-05-03(6-12)	Front Yard, East of House	Orange Brown/Gray Brown F. Sand/F. Gravel, Trace Roots
SS-05	W05	OU4-SS-05-04(6-12)	Front Yard, East of House, Front/Side Yard	Gray/Brown F. Sand, Trace Silt/Roots/Gravel
SS-05	W05	OU4-SS-05-05(6-12)	Side Yard, North of House	Light Gray F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-COMP2(0-1)		
SS-05	W05	OU4-SS-05-06(0-1)	Side Yard, North of House	Dark Gray, F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-07(0-1)	Side Yard, North of House	Gray/Brown F. Sand/Gravel, Trace Roots
SS-05	W05	OU4-SS-05-08(0-1)	Side Yard, North of House	Gray/Brown F. Sand , Trace Silt/Roots/Gravel
SS-05	W05	OU4-SS-05-09(0-1)	Side Yard, North of House	Dark Brown/Black F. Sand/Organics/Woody Debris
SS-05	W05	OU4-SS-05-09(0-1)-DUP	Side Yard, North of House	Dark Brown/Black F. Sand/Organics/Woody Debris
SS-05	W05	OU4-SS-05-COMP2(1-6)		
SS-05	W05	OU4-SS-05-06(1-6)	Side Yard, North of House	Dark Gray/Orange/Brown F. Sand, Trace Roots/Silt/Sand/Gravel
SS-05	W05	OU4-SS-05-07(1-6)	Side Yard, North of House	Gray/Brown/Orange F. Sand/Gray Brown Gravel/Orange/Brown Silt, Trace Roots
SS-05	W05	OU4-SS-05-08(1-6)	Side Yard, North of House	Gray Brown/Orange Brown Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-09(1-6)	Side Yard, North of House	Dark Brown/Black F. Sand/Organics/Woody Debris
SS-05	W05	OU4-SS-05-09(1-6) DUP	Side Yard, North of House	Dark Brown/Black F. Sand/Organics/Woody Debris
SS-05	W05	OU4-SS-05-COMP2(12-18)		
SS-05	W05	OU4-SS-05-06(12-18)	Side Yard, North of House	Orange/Brown F. Sand, Trace Silt/M.Sand/Gravel
SS-05	W05	OU4-SS-05-07(12-18)	Side Yard, North of House	Dark Brown/Gray Brown Silt/F. Sand, Trace Gravel
SS-05	W05	OU4-SS-05-08(12-18)	Side Yard, North of House	Orange Brown Silt/F. Sand, Trace Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-05	W05	OU4-SS-05-09(12-18)	Side Yard, North of House	Light Gray F. Sand, Trace Gravel/Roots
SS-05	W05	OU4-SS-05-COMP2(6-12)		
SS-05	W05	OU4-SS-05-06(6-12)	Side Yard, North of House	Orange/Brown F. Sand, Trace Silt/M. Sand/Gravel
SS-05	W05	OU4-SS-05-07(6-12)	Side Yard, North of House	Orange/Brown/Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-08(6-12)	Side Yard, North of House	Orange Brown Silt/F. Sand, Trace Gravel
SS-05	W05	OU4-SS-05-09(6-12)	Side Yard, North of House	Dark Brown F. Sand, Some Gravel, Trace Roots
SS-05	W05	OU4-SS-DUP-6	Side Yard, North of House	Dark Brown F. Sand, Some Gravel, Trace Roots
SS-05	W05	OU4-SS-05-COMP3(0-1)		
SS-05	W05	OU4-SS-05-10(0-1)	Back Yard, West of House	Dark Gray F. Sand, Trace Roots/F. Gravel
SS-05	W05	OU4-SS-05-11(0-1)	Back Yard, West of House	Dark Gray/Brown F. Sand, Trace Silt/Roots
SS-05	W05	OU4-SS-05-12(0-1)	Back Yard, West of House	Dark Gray F. Sand, Trace Roots/Gravel/Twigs
SS-05	W05	OU4-SS-05-13(0-1)	Back Yard, West of House	Light Gray/Brwon F. Sand, Trave Roots/Gravel
SS-05	W05	OU4-SS-05-14(0-1)	Back Yard, West of House	Dark Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-COMP3(1-6)		
SS-05	W05	OU4-SS-05-10(1-6)	Back Yard, West of House	Dark Gray/Light Brown F. Sand/Silt, Trace Roots/F. Gravel
SS-05	W05	OU4-SS-05-11(1-6)	Back Yard, West of House	Dark Gray/Brown F. Sand, Trace Silt/Roots
SS-05	W05	OU4-SS-05-12(1-6)	Back Yard, West of House	Dark Gray F. Sand, Trace Roots/Gravel/Woody Debris
SS-05	W05	OU4-SS-05-13(1-6)	Back Yard, West of House	Light Gray/Brown F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-14(1-6)	Back Yard, West of House	Dark Brown/Orange Brown Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-COMP3(12-18)		
SS-05	W05	OU4-SS-05-10(12-18)	Back Yard, West of House	Light Orange Brown/Light Gray F. Sand/Silt/F.Gravel
SS-05	W05	OU4-SS-05-11(12-18)	Back Yard, West of House	Light Gray Silt, Trace F. Sand/Roots
SS-05	W05	OU4-SS-05-12(12-18)	Back Yard, West of House	Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-13(12-18)	Back Yard, West of House	Gray/Brown F. Sand, Trace Silt/Gravel
SS-05	W05	OU4-SS-05-14(12-18)	Back Yard, West of House	Gray Brown/Dark Gray F.Sand/Silt/Gravel, Trace Slag
SS-05	W05	OU4-SS-05-COMP3(6-12)		
SS-05	W05	OU4-SS-05-10(6-12)	Back Yard, West of House	Light Brown F. Sand/Silt, Trace Roots/F. Gravel
SS-05	W05	OU4-SS-05-11(6-12)	Back Yard, West of House	Light Gray Silt, Trace F. Sand/Roots
SS-05	W05	OU4-SS-05-12(6-12)	Back Yard, West of House	Dark Gray Silt, Trace F. Sand/Roots/Woody Debris
SS-05	W05	OU4-SS-05-13(6-12)	Back Yard, West of House	Orange/Brown F. Sand, Trace Silt/Gravel
SS-05	W05	OU4-SS-05-14(6-12)	Back Yard, West of House	Orange Brown/Gray Brown Silt/F. Sand/Gravel
SS-05	W05	OU4-SS-05-14(6-12)-DUP	Back Yard, West of House	Orange Brown/Gray Brown Silt/F. Sand/Gravel
SS-05	W05	OU4-SS-05-COMP4(0-1)		
SS-05	W05	OU4-SS-05-16(0-1)	Drip Zone, Northeast Corner of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-05	W05	OU4-SS-05-17(0-1)	Drip Zone, North Side of House	Dark Brown F. Sand, Some Gravel, Trace Roots
SS-05	W05	OU4-SS-05-18(0-1)	Drip Zone, Southeast Corner of House	Dark Brown Silt, Trace F. Sand/Roots/Gravel
SS-05	W05	OU4-SS-05-19(0-1)	Drip Zone, South Side of House	Light Orange/Brown F. Sand, Trace Gravel/Roots
SS-05	W05	OU4-SS-05-COMP4(1-6)		
SS-05	W05	OU4-SS-05-16(1-6)	Drip Zone, Northeast Corner of House	Dark Brown/Orange/Brown Silt/F. Sand, Trace Roots/Gravel
SS-05	W05	OU4-SS-05-17(1-6)	Drip Zone, North Side of House	Dark Brown F. Sand, Some Gravel, Trace Roots
SS-05	W05	OU4-SS-05-18(1-6)	Drip Zone, Southeast Corner of House	Dark Brown Silt, Trace F. Sand/Roots/Gravel
SS-05	W05	OU4-SS-05-19(1-6)	Drip Zone, South Side of House	Light Orange/Brown F. Sand, Trace Gravel/Roots
SS-05	W05	OU4-SS-05-COMP4(12-18)		
SS-05	W05	OU4-SS-05-16(12-18)	Drip Zone, Northeast Corner of House	Dark Brown Silt/F. Sand, Trace F. Gravel
SS-05	W05	OU4-SS-05-17(12-18)	Drip Zone, North Side of House	Dark Brown F. Sand, Trace Silt
SS-05	W05	OU4-SS-05-18(12-18)	Drip Zone, Southeast Corner of House	Dark Brown Silt/F. Sand
SS-05	W05	OU4-SS-05-19(12-18)	Drip Zone, South Side of House	Orange Brown/Dark Brown F. Sand, Some Silt, Trace Gravel
SS-05	W05	OU4-SS-05-COMP4(6-12)		
SS-05	W05	OU4-SS-05-16(6-12)	Drip Zone, Northeast Corner of House	Orange/Brown/Dark Brown Silt/F. Sand, Trace Gravel
SS-05	W05	OU4-SS-05-17(6-12)	Drip Zone, North Side of House	Dark Brown/Orange Brown F. Sand, Some Gravel, Trace Roots
SS-05	W05	OU4-SS-05-18(6-12)	Drip Zone, Southeast Corner of House	Dark Brown Silt/F. Sand, Trace F.Gravel
SS-05	W05	OU4-SS-05-19(6-12)	Drip Zone, South Side of House	Light Orange Brown F. Sand/Gravel, Some Silt, Trace Roots
SS-06	D19	OU4-SS-06-COMP1(0-1)		
SS-06	D19	OU4-SS-06-01(0-1)	Side Yard, Southwest of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-02(0-1)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-03(0-1)	Side Yard, South of House	Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-04(0-1)	Side Yard, South of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP1(1-6)		
SS-06	D19	OU4-SS-06-01(1-6)	Side Yard, Southwest of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-02(1-6)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-03(1-6)	Side Yard, South of House	Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-04(1-6)	Side Yard, South of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP1(12-18)		
SS-06	D19	OU4-SS-06-01(12-18)	Side Yard, Southwest of House	Dark Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-06	D19	OU4-SS-06-02(12-18)	Side Yard, South of House	Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-03(12-18)	Side Yard, South of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-04(12-18)	Side Yard, South of House	Orange/Brown/Black Silt, Little F. Sand, Trace Roots/Black Fines
SS-06	D19	OU4-SS-06-COMP1(6-12)		
SS-06	D19	OU4-SS-06-01(6-12)	Side Yard, Southwest of House	Dark Brown/Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-02(6-12)	Side Yard, South of House	Gray Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-03(6-12)	Side Yard, South of House	Brown/Orange Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-04(6-12)	Side Yard, South of House	Dark Brown/Orange/Black Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP2(0-1)		
SS-06	D19	OU4-SS-06-05(0-1)	Back Yard, Southeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-06(0-1)	Back Yard, Southeast of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-07(0-1)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-08(0-1)	Back Yard, East of House	Brown Black Orange Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-09(0-1)	Back Yard, East of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-COMP2(1-6)		
SS-06	D19	OU4-SS-06-05(1-6)	Back Yard, Southeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-06(1-6)	Back Yard, Southeast of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-07(1-6)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-08(1-6)	Back Yard, East of House	Brown Black Orange Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-09(1-6)	Back Yard, East of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-09(1-6)-DUP	Back Yard, East of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-COMP2(12-18)		
SS-06	D19	OU4-SS-06-05(12-18)	Back Yard, Southeast of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-06(12-18)	Back Yard, Southeast of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-07(12-18)	Back Yard, East of House	Orange Brown Silt/Clay, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-08(12-18)	Back Yard, East of House	Brown Black Orange Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-09(12-18)	Back Yard, East of House	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP2(6-12)		
SS-06	D19	OU4-SS-06-05(6-12)	Back Yard, Southeast of House	Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-06(6-12)	Back Yard, Southeast of House	Brown/Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-06	D19	OU4-SS-06-07(6-12)	Back Yard, East of House	Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-08(6-12)	Back Yard, East of House	Brown Black Orange Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-09(6-12)	Back Yard, East of House	Gray Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP3(0-1)		
SS-06	D19	OU4-SS-06-10(0-1)	Back Yard, Northeast of House	Gray/Brown F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-11(0-1)	Back Yard, Northeast of House	Dark Gray F. Sand/Silt, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-12(0-1)	Back Yard, Northeast of House	Light Gray F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-13(0-1)	Back Yard, Northeast of House	Gray/Brown F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-14(0-1)	Back Yard, Northeast of House	Dark Gray F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-14(0-1)-DUP	Back Yard, Northeast of House	Dark Gray F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-COMP3(1-6)		
SS-06	D19	OU4-SS-06-10(1-6)	Back Yard, Northeast of House	Gray/Brown F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-11(1-6)	Back Yard, Northeast of House	Dark Gray F. Sand/Silt, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-12(1-6)	Back Yard, Northeast of House	Light Gray/Dark Gray F. Sand/Silt, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-13(1-6)	Back Yard, Northeast of House	Gray/Brown/Light Brown F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-14(1-6)	Back Yard, Northeast of House	Dark Gray/Gray Brown F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-COMP3(12-18)		
SS-06	D19	OU4-SS-06-10(12-18)	Back Yard, Northeast of House	Orange Brown F. Sand/Concrete, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-11(12-18)	Back Yard, Northeast of House	Dark Gray Silt, Trace F. Sand/Gravel
SS-06	D19	OU4-SS-06-12(12-18)	Back Yard, Northeast of House	Orange Brown F. Sand, Trace Silt/Gravel
SS-06	D19	OU4-SS-06-13(12-18)	Back Yard, Northeast of House	Gray Brown Silt, Trace F. Sand/Gravel
SS-06	D19	OU4-SS-06-14(12-18)	Back Yard, Northeast of House	Light Gray Silt/F. Sand, Trace Gravel
SS-06	D19	OU4-SS-06-COMP3(6-12)		
SS-06	D19	OU4-SS-06-10(6-12)	Back Yard, Northeast of House	Orange Brown F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-11(6-12)	Back Yard, Northeast of House	Dark Gray F. Sand/Silt, Trace Roots/Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-06	D19	OU4-SS-06-12(6-12)	Back Yard, Northeast of House	Dark Brown/Orange Brown F. Sand/Silt, Trace Gravel
SS-06	D19	OU4-SS-06-13(6-12)	Back Yard, Northeast of House	Light Brown/Gray Brown F. Sand/Silt, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-14(6-12)	Back Yard, Northeast of House	Gray Brown/Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-14(6-12)-DUP	Back Yard, Northeast of House	Gray Brown/Light Gray Silt/F. Sand, Trace Roots/Gravel
SS-06	D19	OU4-SS-06-COMP4(0-1)		
SS-06	D19	OU4-SS-06-15(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-16(0-1)	Side Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-17(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-18(0-1)	Side Yard, North of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-19(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand/Roots, Trace F. Gravel
SS-06	D19	OU4-SS-06-COMP4(1-6)		
SS-06	D19	OU4-SS-06-15(1-6)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-16(1-6)	Side Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-17(1-6)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-18(1-6)	Side Yard, Northwest of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-19(1-6)	Side Yard, Northwest of House	Brown Silt, Little F. Sand/Roots, Trace F. Gravel
SS-06	D19	OU4-SS-06-19(1-6)-DUP	Side Yard, Northwest of House	Brown Silt, Little F. Sand/Roots, Trace F. Gravel
SS-06	D19	OU4-SS-06-COMP4(12-18)		
SS-06	D19	OU4-SS-06-15(12-18)	Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots/F.Gravel
SS-06	D19	OU4-SS-06-16(12-18)	Side Yard, North of House	Brown Silt, Some F. Sand, Little F. M. Gravel
SS-06	D19	OU4-SS-06-17(12-18)	Side Yard, North of House	Orange/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-18(12-18)	Side Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-19(12-18)	Side Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/Slag
SS-06	D19	OU4-SS-06-COMP4(6-12)		
SS-06	D19	OU4-SS-06-15(6-12)	Side Yard, North of House	Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-16(6-12)	Side Yard, North of House	Gray Brown Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-17(6-12)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-18(6-12)	Side Yard, Northwest of House	Dark Brown/Orange Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-06	D19	OU4-SS-06-19(6-12)	Side Yard, Northwest of House	Brown Silt, Little F. Sand/Roots, Trace F. Gravel
SS-06	D19	OU4-SS-06-19(6-12)-DUP	Side Yard, Northwest of House	Brown Silt, Little F. Sand/Roots, Trace F. Gravel
SS-06	D19	OU4-SS-06-COMP5(0-1)		
SS-06	D19	OU4-SS-06-20(0-1)	Drip Zone, Side of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-21(0-1)	Drip Zone, Side of House	Orange/Brown/Black Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-22(0-1)	Drip Zone, Side of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-23(0-1)	Drip Zone, Side of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP5(1-6)		
SS-06	D19	OU4-SS-06-20(1-6)	Drip Zone, South Side of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-21(1-6)	Drip Zone, South Side of House	Orange/Brown/Black Silt, Little F. Sand, Trace Roots
SS-06	D19	OU4-SS-06-22(1-6)	Drip Zone, North Side of House	Gray Brown/Orange Brown Silt, Little F. Sand, Trace Roots/Clay
SS-06	D19	OU4-SS-06-23(1-6)	Drip Zone, North Side of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-COMP5(12-18)		
SS-06	D19	OU4-SS-06-20(12-18)	Drip Zone, South Side of House	Dark Brown/Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-21(12-18)	Drip Zone, South Side of House	Dark Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-22(12-18)	Drip Zone, North Side of House	Orange Brown Silt, Little F. Sand, Trace Clay/Roots
SS-06	D19	OU4-SS-06-23(12-18)	Drip Zone, North Side of House	Red/Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-06	D19	OU4-SS-06-COMP5(6-12)		
SS-06	D19	OU4-SS-06-20(6-12)	Drip Zone, South Side of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-06	D19	OU4-SS-06-21(6-12)	Drip Zone, South Side of House	Black/Dark Brown Silt, Little F. Gravel, Trace Roots/F. Sand
SS-06	D19	OU4-SS-06-22(6-12)	Drip Zone, North Side of House	Orange Brown Silt, Little F. Sand, Trace Roots/Clay
SS-06	D19	OU4-SS-DUP-5	Drip Zone, North Side of House	Orange Brown Silt, Little F. Sand, Trace Roots/Clay
SS-06	D19	OU4-SS-06-23(6-12)	Drip Zone, North Side of House	Gray Brown/Red/Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-06	D19	OU4-SS-06-23(6-12)-DUP	Drip Zone, North Side of House	Gray Brown/Red/Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-07	W02	OU4-SS-07-COMP1(0-1)		
SS-07	W02	OU4-SS-07-01(0-1)	Front Yard, West of House	Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-02(0-1)	Front Yard, West of House	Gray/Brown Silt, Little F. Sand
SS-07	W02	OU4-SS-07-03(0-1)	Front Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-04(0-1)	Front Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-05(0-1)	Front Yard, West of House	Gray Brown Silt, Some F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-COMP1(1-6)		
SS-07	W02	OU4-SS-07-01(1-6)	Front Yard, West of House	Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-02(1-6)	Front Yard, West of House	Gray/Brown Silt, Little F. Sand
SS-07	W02	OU4-SS-07-03(1-6)	Front Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-07	W02	OU4-SS-07-04(1-6)	Front Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-05(1-6)	Front Yard, West of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP1(12-18)		
SS-07	W02	OU4-SS-07-01(12-18)	Front Yard, West of House	Light Brown/Gray Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-02(12-18)	Front Yard, West of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-03(12-18)	Front Yard, West of House	Brown/Dark Brown Silt, Trace Roots/F. Sand
SS-07	W02	OU4-SS-07-04(12-18)	Front Yard, West of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-05(12-18)	Front Yard, West of House	Brown Silt, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP1(6-12)		
SS-07	W02	OU4-SS-07-01(6-12)	Front Yard, West of House	Light Brown/Gray Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-02(6-12)	Front Yard, West of House	Dark Gray Brown Silt, Little F. Sand, Trace F. Sand/F. Gravel
SS-07	W02	OU4-SS-07-03(6-12)	Front Yard, West of House	Brown Silt, Trace Roots/F. Sand
SS-07	W02	OU4-SS-07-04(6-12)	Front Yard, West of House	Brown/Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-05(6-12)	Front Yard, West of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-05(6-12)-DUP	Front Yard, West of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP2(0-1)		
SS-07	W02	OU4-SS-07-06(0-1)	Side Yard, Southwest of House	Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-07(0-1)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-08(0-1)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-09(0-1)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP2(1-6)		
SS-07	W02	OU4-SS-07-06(1-6)	Side Yard, Southwest of House	Brown Silt, Little F. Sand, Trace roots
SS-07	W02	OU4-SS-07-07(1-6)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-08(1-6)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-09(1-6)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP2(12-18)		
SS-07	W02	OU4-SS-07-06(12-18)	Side Yard, Southwest of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-07(12-18)	Side Yard, South of House	Light Brown Silt, Little F. Sand, Trace Roots/Wood Debris
SS-07	W02	OU4-SS-07-08(12-18)	Side Yard, South of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-09(12-18)	Side Yard, South of House	Gray/Brown Silt, Trace F. Sand/Roots
SS-07	W02	OU4-SS-07-COMP2(6-12)		
SS-07	W02	OU4-SS-07-06(6-12)	Side Yard, Southwest of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-07(6-12)	Side Yard, South of House	Brown/Light Brown Silt, Little F. Sand, Trace Roots/Woody Debris

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-07	W02	OU4-SS-07-08(6-12)	Side Yard, South of House	Gray Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-09(6-12)	Side Yard, South of House	Gray Brown/Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP3(0-1)		
SS-07	W02	OU4-SS-07-10(0-1)	Back Yard, East of House, Near Garage	Brown F.M. Sand
SS-07	W02	OU4-SS-07-11(0-1)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-12(0-1)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-13(0-1)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-14(0-1)	Back Yard, East of House, Near Garage	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP3(1-6)		
SS-07	W02	OU4-SS-07-10(1-6)	Back Yard, East of House, Near Garage	Brown F. M. Sand/ Dark Brown Silt, Trace Roots
SS-07	W02	OU4-SS-07-11(1-6)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-12(1-6)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-13(1-6)	Back Yard, East of House, Near Garage	Gray Brown/Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-14(1-6)	Back Yard, East of House, Near Garage	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-14(1-6)-DUP	Back Yard, East of House, Near Garage	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP3(12-18)		
SS-07	W02	OU4-SS-07-10(12-18)	Back Yard, East of House, Near Garage	Dark Brown/Brown Orange Silt, Little F. M. Sand, Trace Roots/Brick
SS-07	W02	OU4-SS-07-11(12-18)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-12(12-18)	Back Yard, East of House, Near Garage	Brown/Dark Brown Silt, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-13(12-18)	Back Yard, East of House, Near Garage	Dark Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-14(12-18)	Back Yard, East of House, Near Garage	Orange Brown/Dark Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-COMP3(6-12)		
SS-07	W02	OU4-SS-07-10(6-12)	Back Yard, East of House, Near Garage	Dark Brown/Brown Orange Silt, Little F. M. Sand, Trace Roots/Brick
SS-07	W02	OU4-SS-07-11(6-12)	Back Yard, East of House, Near Garage	Gray Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-07	W02	OU4-SS-07-12(6-12)	Back Yard, East of House, Near Garage	Gray Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-13(6-12)	Back Yard, East of House, Near Garage	Gray Brown/Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-14(6-12)	Back Yard, East of House, Near Garage	Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP4(0-1)		
SS-07	W02	OU4-SS-07-15(0-1)	Southeast of House in Garden	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-16(0-1)	Southeast of House in Garden	Light Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-17(0-1)	Southeast of House in Garden	Light Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-COMP4(1-6)		
SS-07	W02	OU4-SS-07-15(1-6)	Southeast of House in Garden	Gray Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-16(1-6)	Southeast of House in Garden	Light Brown/Dark Brown Silt, Little F. Sand, Trace Roots/Coal
SS-07	W02	OU4-SS-07-17(1-6)	Southeast of House in Garden	Light Brown/Dark Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-COMP4(12-18)		
SS-07	W02	OU4-SS-07-15(12-18)	Southeast of House in Garden	Brown Silt, Little F. Sand, Trace Roots/Wood Debris/F. Gravel
SS-07	W02	OU4-SS-07-16(12-18)	Southeast of House in Garden	Brown Silt, Trace Roots/F. Sand
SS-07	W02	OU4-SS-07-17(12-18)	Southeast of House in Garden	Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-COMP4(6-12)		
SS-07	W02	OU4-SS-07-15(6-12)	Southeast of House in Garden	Brown Silt, Little F. Sand, Trace Roots/Wood Debris/F. Gravel
SS-07	W02	OU4-SS-07-16(6-12)	Southeast of House in Garden	Dark Brown/Brown Silt, Little F. Sand, Trace Roots/Coal
SS-07	W02	OU4-SS-07-17(6-12)	Southeast of House in Garden	Dark Brown Silt, Little F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-COMP5(0-1)		
SS-07	W02	OU4-SS-07-18(0-1)	Drip Zone, Southeast Corner of House	Brown Silt, Some F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-19(0-1)	Drip Zone, Northeast Corner of House	Gray Brown Silt, Some F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-20(0-1)	Drip Zone, Corner or House	Gray Brown Silt, Some F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-21(0-1)	Drip Zone, West, Front of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP5(1-6)		
SS-07	W02	OU4-SS-07-18(1-6)	Drip Zone, Southeast Corner of House	Brown Silt, Some F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-19(1-6)	Drip Zone, Northeast Corner of House	Gray Brown/Brown/Black Silt, Some F. Sand, Trace Roots/Black Fines
SS-07	W02	OU4-SS-07-20(1-6)	Drip Zone, Corner or House	Gray Brown/Brown Black Silt, Some F. Sand, Trace Roots
SS-07	W02	OU4-SS-07-21(1-6)	Drip Zone, West, Front of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP5(12-18)		
SS-07	W02	OU4-SS-07-18(12-18)	Drip Zone, Southeast Corner of House	Brown/Black Silt, Little F. Sand, Trace Roots/Wood Debris

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-07	W02	OU4-SS-07-19(12-18)	Drip Zone, Northeast Corner of House	Brown/Black Silt, Little F. Sand, Trace Roots/Black Fines
SS-07	W02	OU4-SS-07-20(12-18)	Drip Zone, Corner or House	Brown Orange Silt, Trace F. Sand/Roots
SS-07	W02	OU4-SS-07-21(12-18)	Drip Zone, West, Front of House	Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-COMP5(6-12)		
SS-07	W02	OU4-SS-07-18(6-12)	Drip Zone, Southeast Corner of House	Brown/Black Silt, Some F. Sand, Trace Roots/Woody Debris
SS-07	W02	OU4-SS-07-19(6-12)	Drip Zone, Northeast Corner of House	Brown/Black Silt, Little F. Sand, Trace Roots/Black Fines
SS-07	W02	OU4-SS-07-20(6-12)	Drip Zone, Corner or House	Brown Orange Silt, Trace F. Sand/Roots
SS-07	W02	OU4-SS-07-21(6-12)	Drip Zone, West, Front of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-07	W02	OU4-SS-07-21(6-12)-DUP	Drip Zone, West, Front of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-COMP1(0-1)		
SS-08	D11	OU4-SS-08-01(0-1)	Front Yard, North of House	Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel/Woody Debris
SS-08	D11	OU4-SS-08-02(0-1)	Front Yard, North of House	Brown Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-03(0-1)	Front Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/Grass/F. Gravel
SS-08	D11	OU4-SS-08-04(0-1)	Front Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-05(0-1)	Front Yard, North of House	Brown F. Sand, Little Silt, Trace Roots
SS-08	D11	OU4-SS-08-COMP1(1-6)		
SS-08	D11	OU4-SS-08-01(1-6)	Front Yard, North of House	Brown/Black Silt, Little F. Sand, Trace Wood Debris/F. Gravel/Roots
SS-08	D11	OU4-SS-08-02(1-6)	Front Yard, North of House	Brown Black/Light Brown Silt/Clay, Little F. Sand, Trace Roots/F.Gravel
SS-08	D11	OU4-SS-08-03(1-6)	Front Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/Grass/F. Gravel
SS-08	D11	OU4-SS-08-04(1-6)	Front Yard, North of House	Brown/Light Brown F. Sand/Silt, Little Wood Debris, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-05(1-6)	Front Yard, North of House	Brown F. Sand, Little Silt, Trace Roots
SS-08	D11	OU4-SS-08-COMP1(12-18)		
SS-08	D11	OU4-SS-08-01(12-18)	Front Yard, North of House	Brown/Black Silt, Little F. Sand, Trace Wood Debris/F. Gravel/Roots
SS-08	D11	OU4-SS-08-02(12-18)	Front Yard, North of House	Orange Brown Silt/Clay, Little F. Sand, Trace F. Gravel
SS-08	D11	OU4-SS-08-03(12-18)	Front Yard, North of House	Brown F. Sand/Silt, Little Wood Debris, Trace Roots/Grass/F. Gravel
SS-08	D11	OU4-SS-08-04(12-18)	Front Yard, North of House	Light Brown/Dark Brown/Black Silt/F. Sand, Little Wood Debris, Trace Roots/Coal/F. Gravel
SS-08	D11	OU4-SS-08-05(12-18)	Front Yard, North of House	Brown/Orange/Light Brown Silt/F. Sand/Clay, Trace F. Gravel
SS-08	D11	OU4-SS-08-COMP1(6-12)		
SS-08	D11	OU4-SS-08-01(6-12)	Front Yard, North of House	Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel/Woody Debris
SS-08	D11	OU4-SS-08-02(6-12)	Front Yard, North of House	Light Brown/Orange Brown Silt/Clay, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-03(6-12)	Front Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/Grass/F. Gravel
SS-08	D11	OU4-SS-08-04(6-12)	Front Yard, North of House	Light Brown/Dark Brown/Black F. Sand/Silt, Little Woody Debris, Trace Roots/Coal/F. Gravel
SS-08	D11	OU4-SS-08-05(6-12)	Front Yard, North of House	Brown/Orange F. Sand, Little Silt, Trace Roots/Clay

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-08	D11	OU4-SS-08-COMP2(0-1)		
SS-08	D11	OU4-SS-08-06(0-1)	Back Yard, South of House	Brown/Orange Silt, Little F. Sand, Trace Roots/Grass
SS-08	D11	OU4-SS-08-07(0-1)	Back Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-08(0-1)	Back Yard, South of House	Dark Brown/Gray Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-09(0-1)	Back Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots, F. Gravel
SS-08	D11	OU4-SS-08-10(0-1)	Back Yard, South of House	Gray Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-COMP2(1-6)		
SS-08	D11	OU4-SS-08-06(1-6)	Back Yard, South of House	Brown/Orange Silt, Little F. Sand, Trace Roots/Grass
SS-08	D11	OU4-SS-08-07(1-6)	Back Yard, South of House	Gray Brown/Dark Brown Silt, Little F. Sand, Trace F. Gravel
SS-08	D11	OU4-SS-08-08(1-6)	Back Yard, South of House	Dark Brown/Gray Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-09(1-6)	Back Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots, F. Gravel
SS-08	D11	OU4-SS-08-10(1-6)	Back Yard, South of House	Gray Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-10(1-6)-DUP	Back Yard, South of House	Gray Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-COMP2(12-18)		
SS-08	D11	OU4-SS-08-06(12-18)	Back Yard, South of House	Brown/Dark Brown Silt, Little F. Sand, Trace Roots/Wood Debris/F. Gravel/Coal
SS-08	D11	OU4-SS-08-07(12-18)	Back Yard, South of House	Dark Brown/Brown Silt/Clay, Little F. Sand, Trace F. Gravel
SS-08	D11	OU4-SS-08-08(12-18)	Back Yard, South of House	Orange Brown Silt/Clay, Little F. Sand
SS-08	D11	OU4-SS-08-09(12-18)	Back Yard, South of House	Brown/Gray Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-10(12-18)	Back Yard, South of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-COMP2(6-12)		
SS-08	D11	OU4-SS-08-06(6-12)	Back Yard, South of House	Brown/Orange Silt, Little F. Sand, Trace Roots/Wood Debris/Grass
SS-08	D11	OU4-SS-08-07(6-12)	Back Yard, South of House	Dark Brown Silt, Little F. Sand, Trace F. Gravel
SS-08	D11	OU4-SS-08-08(6-12)	Back Yard, South of House	Dark Brown/Gray Silt, Little F.Sand, Trace Roots
SS-08	D11	OU4-SS-08-09(6-12)	Back Yard, South of House	Gray Brown/Brown Silt, Little F.Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-10(6-12)	Back Yard, South of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-COMP3(0-1)		
SS-08	D11	OU4-SS-08-11(0-1)	Back Yard, South of House	Gray Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-12(0-1)	Back Yard, South of House	Dark Brown Silt, Little F. Sand, Trace Roots/Brick/Coal/F. Gravel
SS-08	D11	OU4-SS-08-13(0-1)	Back Yard, South of House	Gray/Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-14(0-1)	Back Yard, South of House	Gray/Brown/Black Silt, Trace F. Sand/Roots/F. Gravel
SS-08	D11	OU4-SS-08-15(0-1)	Back Yard, South of House	Gray/Brown/Black F. Sand, Some Silt, Trace Roots, F. Gravel/Coal
SS-08	D11	OU4-SS-08-COMP3(1-6)		
SS-08	D11	OU4-SS-08-11(1-6)	Back Yard, South of House	Gray Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-12(1-6)	Back Yard, South of House	Dark Brown Silt, Little F. Sand, Trace Roots/Brick/Coal/F. Gravel
SS-08	D11	OU4-SS-08-13(1-6)	Back Yard, South of House	Gray/Dark Brown/Black Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-08	D11	OU4-SS-08-14(1-6)	Back Yard, South of House	Gray/Brown/Black Silt, Trace F. Sand/Roots/F. Gravel
SS-08	D11	OU4-SS-08-15(1-6)	Back Yard, South of House	Gray/Brown/Black F. Sand, Some Silt, Trace Roots, F. Gravel/Coal
SS-08	D11	OU4-SS-08-COMP3(12-18)		
SS-08	D11	OU4-SS-08-11(12-18)	Back Yard, South of House	Dark Brown Silt, Lilte F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-12(12-18)	Back Yard, South of House	Dark Brown Silt, Little F. Sand, Trace Roots/Brick/Coal/F. Gravel
SS-08	D11	OU4-SS-08-13(12-18)	Back Yard, South of House	Brown Silt, Little F. Sand, Trace Clay/Roots
SS-08	D11	OU4-SS-08-14(12-18)	Back Yard, South of House	Gray/Brown/Black Silt, Trace F. Sand/Roots/F. Gravel
SS-08	D11	OU4-SS-08-15(12-18)	Back Yard, South of House	Brown Silt, Some F. Sand, Trace F. Gravel
SS-08	D11	OU4-SS-08-COMP3(6-12)		
SS-08	D11	OU4-SS-08-11(6-12)	Back Yard, South of House	Gray Silt/Dark Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-12(6-12)	Back Yard, South of House	Dark Brown Silt, Little F. Sand, Trace Roots/Brick/Coal/F. Gravel
SS-08	D11	OU4-SS-08-13(6-12)	Back Yard, South of House	Gray/Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-14(6-12)	Back Yard, South of House	Gray/Brown/Black Silt, Trace F. Sand/Roots/F. Gravel
SS-08	D11	OU4-SS-08-15(6-12)	Back Yard, South of House	Gray/Brown/Black F. Sand/Silt, Trace Roots/F. Gravel/Coal
SS-08	D11	OU4-SS-08-COMP4(0-1)		
SS-08	D11	OU4-SS-08-16(0-1)	Drip Zone, Northeast Corner of House	Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-17(0-1)	Drip Zone, Northwest Corner of House	Brown/Black F. Sand, Some Silt, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-18(0-1)	Drip Zone, Corner or House	Brown/Black F. Sand/Silt, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-19(0-1)	Drip Zone, Corner or House	Brown/Black F. Sand, Little Silt, Trace Roots, F. Gravel
SS-08	D11	OU4-SS-08-19(0-1)-DUP	Drip Zone, Corner or House	Brown/Black F. Sand, Little Silt, Trace Roots, F. Gravel
SS-08	D11	OU4-SS-08-COMP4(1-6)		
SS-08	D11	OU4-SS-08-16(1-6)	Drip Zone, Northeast Corner of House	Black/Orange Brown Silt/Clay, Some F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-17(1-6)	Drip Zone, Northwest Corner of House	Brown/Black F. Sand, Some Silt, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-18(1-6)	Drip Zone, Corner or House	Brown/Black F. Sand/Silt/Clay, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-19(1-6)	Drip Zone, Corner or House	Brown/Black F. Sand, Little Silt, Trace Roots, F. Gravel
SS-08	D11	OU4-SS-08-COMP4(12-18)		
SS-08	D11	OU4-SS-08-16(12-18)	Drip Zone, Northeast Corner of House	Orange Brown Silt/Clay, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-17(12-18)	Drip Zone, Northwest Corner of House	Orange Brown Silt/Clay, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-18(12-18)	Drip Zone, Corner or House	Brown/Black Silt/Clay, Little F. Sand
SS-08	D11	OU4-SS-08-19(12-18)	Drip Zone, Corner or House	Brown/Black F. Sand, Little Silt, Trace Roots, F. Gravel
SS-08	D11	OU4-SS-08-COMP4(6-12)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-08	D11	OU4-SS-08-16(6-12)	Drip Zone, Northeast Corner of House	Black/Orange Brown Silt/Clay, Some F. Sand, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-17(6-12)	Drip Zone, Northwest Corner of House	Orange Brown Silt/Clay, Little F. Sand, Trace Roots
SS-08	D11	OU4-SS-08-18(6-12)	Drip Zone, Corner or House	Brown/Black F. Sand/Silt/Clay, Trace Roots/F. Gravel
SS-08	D11	OU4-SS-08-19(6-12)	Drip Zone, Corner or House	Brown/Black F. Sand, Little Silt, Trace Roots, F. Gravel
SS-09	S13	OU4-SS-09-COMP1(0-1)		
SS-09	S13	OU4-SS-09-01(0-1)	Side Yard, West of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-02(0-1)	Side Yard, West of House	Brown Silt, Little F. Sand, Trace Roots/Brick/F. Gravel
SS-09	S13	OU4-SS-09-03(0-1)	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots, F. Gravel
SS-09	S13	OU4-SS-09-04(0-1)	Side Yard, West of House	Gray/Brown Silt, Some F. Sand Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-05(0-1)	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-05(0-1)-DUP	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP1(1-6)		
SS-09	S13	OU4-SS-09-01(1-6)	Side Yard, West of House	Brown/Orange Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-02(1-6)	Side Yard, West of House	Brown Silt, Little F. Sand, Trace Roots/Brick/F. Gravel
SS-09	S13	OU4-SS-09-03(1-6)	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots, F. Gravel
SS-09	S13	OU4-SS-09-04(1-6)	Side Yard, West of House	Gray/Brown Silt, Some F. Sand Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-05(1-6)	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP1(12-18)		
SS-09	S13	OU4-SS-09-01(12-18)	Side Yard, West of House	Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-02(12-18)	Side Yard, West of House	Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-03(12-18)	Side Yard, West of House	Orange Brown/Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-04(12-18)	Side Yard, West of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-05(12-18)	Side Yard, West of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP1(6-12)		
SS-09	S13	OU4-SS-09-01(6-12)	Side Yard, West of House	Orange Brown/Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-02(6-12)	Side Yard, West of House	Brown/Black Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-09	S13	OU4-SS-09-03(6-12)	Side Yard, West of House	Orange/Brown/Gray Silt, Some F. Sand, Trace Roots, F. Gravel
SS-09	S13	OU4-SS-09-04(6-12)	Side Yard, West of House	Gray/Brown Silt, Some F. Sand Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-05(6-12)	Side Yard, West of House	Brown/Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP2(0-1)		
SS-09	S13	OU4-SS-09-06(0-1)	Back Yard, Northwest of House	Gray Brown Silt, F. Sand, Trace Roots/Gravel
SS-09	S13	OU4-SS-09-07(0-1)	Back Yard, Northwest of House	Orange Brown Silt, Little F. Sand, Trace Roots/Brick/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-09	S13	OU4-SS-09-08(0-1)	Back Yard, Northwest of House	Gray/Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots/Slag
SS-09	S13	OU4-SS-09-09(0-1)	Back Yard, Northwest of House	Dark Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel/Woody Debris
SS-09	S13	OU4-SS-09-10(0-1)	Back Yard, Northwest of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP2(1-6)		
SS-09	S13	OU4-SS-09-06(1-6)	Back Yard, Northwest of House	Gray Brown Silt, Some F. Sand, Trace Roots/Gravel
SS-09	S13	OU4-SS-09-07(1-6)	Back Yard, Northwest of House	Orange Brown Silt, Little F. Sand, Trace Roots/Brick/F. Gravel
SS-09	S13	OU4-SS-09-08(1-6)	Back Yard, Northwest of House	Gray/Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots/Slag
SS-09	S13	OU4-SS-09-09(1-6)	Back Yard, Northwest of House	Dark Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel/Woody Debris
SS-09	S13	OU4-SS-09-10(1-6)	Back Yard, Northwest of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-10(1-6)-DUP	Back Yard, Northwest of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP2(12-18)		
SS-09	S13	OU4-SS-09-06(12-18)	Back Yard, Northwest of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-07(12-18)	Back Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Clay/Roots
SS-09	S13	OU4-SS-09-08(12-18)	Back Yard, Northwest of House	Light Brown F. Sand, Little Silt, Trace Roots
SS-09	S13	OU4-SS-09-09(12-18)	Back Yard, Northwest of House	Gray/Brown Silt Little F. Sand, Trace Clay
SS-09	S13	OU4-SS-09-10(12-18)	Back Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Clay
SS-09	S13	OU4-SS-09-COMP2(6-12)		
SS-09	S13	OU4-SS-09-06(6-12)	Back Yard, Northwest of House	Gray Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-07(6-12)	Back Yard, Northwest of House	Orange Brown/Dark Brown Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-09	S13	OU4-SS-09-08(6-12)	Back Yard, Northwest of House	Gray/Brown Silt/Light Brown F. Sand, Little F. Gravel, Trace Roots/Slag
SS-09	S13	OU4-SS-09-09(6-12)	Back Yard, Northwest of House	Dark Brown/Black/Gray Silt, Some F. Sand, Trace Roots/F. Gravel/Woody Debris/Clay
SS-09	S13	OU4-SS-09-10(6-12)	Back Yard, Northwest of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP3(0-1)		
SS-09	S13	OU4-SS-09-11(0-1)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-09	S13	OU4-SS-09-12(0-1)	Back Yard, North of House	Gray Brown, F. Sand, Some Silt, Trace F. Gravel/Woody Debris/Roots
SS-09	S13	OU4-SS-09-13(0-1)	Back Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-14(0-1)	Back Yard, North of House	Brown/Black F. Sand, Little Silt, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-15(0-1)	Back Yard, Northeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-COMP3(1-6)		
SS-09	S13	OU4-SS-09-11(1-6)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-12(1-6)	Back Yard, North of House	Gray Brown, F. Sand, Some Silt, Trace F. Gravel/Woody Debris/Roots
SS-09	S13	OU4-SS-09-13(1-6)	Back Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-14(1-6)	Back Yard, North of House	Brown/Black F. Sand, Little Silt, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-15(1-6)	Back Yard, Northeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-15(1-6)-DUP	Back Yard, Northeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-COMP3(12-18)		
SS-09	S13	OU4-SS-09-11(12-18)	Back Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots/Clay/F. Gravel
SS-09	S13	OU4-SS-09-12(12-18)	Back Yard, North of House	Gray Brown F. Sand, Some Silt, Trace Roots/Wood Debris/F. Gravel
SS-09	S13	OU4-SS-09-13(12-18)	Back Yard, North of House	Dark Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-14(12-18)	Back Yard, North of House	Brown F. Sand, Little Silt, Trace Roots/Wood Debris
SS-09	S13	OU4-SS-09-15(12-18)	Back Yard, Northeast of House	Light Brown F. Sand, Little Silt, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP3(6-12)		
SS-09	S13	OU4-SS-09-11(6-12)	Back Yard, North of House	Brown/Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel, Clay
SS-09	S13	OU4-SS-09-12(6-12)	Back Yard, North of House	Gray Brown, F. Sand, Some Silt, Trace F. Gravel/Woody Debris/Roots
SS-09	S13	OU4-SS-09-13(6-12)	Back Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-14(6-12)	Back Yard, North of House	Brown/Black F. Sand, Little Silt, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-15(6-12)	Back Yard, Northeast of House	Brown Silt/Light Brown F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP4(0-1)		
SS-09	S13	OU4-SS-09-16(0-1)	Side Yard, East of House	Gray Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-17(0-1)	Side Yard, Southeast Corner of House	Dark Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-18(0-1)	Front Yard, South of House	Black Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-19(0-1)	Front Yard, South of House	Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP4(1-6)		
SS-09	S13	OU4-SS-09-16(1-6)	Side Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-17(1-6)	Side Yard, Southeast Corner of House	Dark Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-09	S13	OU4-SS-09-18(1-6)	Front Yard, South of House	Black Silt/Gray F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-19(1-6)	Front Yard, South of House	Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-COMP4(12-18)		
SS-09	S13	OU4-SS-09-16(12-18)	Side Yard, East of House	Brown F. Sand, Little Silt, Trace F. Gravel
SS-09	S13	OU4-SS-09-17(12-18)	Side Yard, Southeast Corner of House	Brown/Orange Brown F. M. Sand/Silt, Trace Roots/F.Gravel
SS-09	S13	OU4-SS-09-18(12-18)	Front Yard, South of House	Brown F. M. Sand, Little Silt, Trace Roots
SS-09	S13	OU4-SS-09-19(12-18)	Front Yard, South of House	Brown F. Sand, Some Silt, Trace Roots
SS-09	S13	OU4-SS-09-COMP4(6-12)		
SS-09	S13	OU4-SS-09-16(6-12)	Side Yard, East of House	Brown Silt/F. Sand, Trace F. Gravel/Roots
SS-09	S13	OU4-SS-09-17(6-12)	Side Yard, Southeast Corner of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-18(6-12)	Front Yard, South of House	Gray/Brown F.M. Sand, Little Silt, Trace Roots
SS-09	S13	OU4-SS-09-19(6-12)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-COMP5(0-1)		
SS-09	S13	OU4-SS-09-20(0-1)	Drip Zone, Front of Houses	Black/Orange Silt, Little F. Sand, Trace Roots/Wood Debris
SS-09	S13	OU4-SS-09-21(0-1)	Drip Zone, Northeast Side of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-22(0-1)	Drip Zone, North of House-Back Yard	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-23(0-1)	Drip Zone, Northwest Corner of Garage	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-COMP5(1-6)		
SS-09	S13	OU4-SS-09-20(1-6)	Drip Zone, Front of Houses	Black/Orange Silt, Little F. Sand, Trace Roots/Woody Debris
SS-09	S13	OU4-SS-09-21(1-6)	Drip Zone, Northeast Side of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-22(1-6)	Drip Zone, North of House-Back Yard	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-23(1-6)	Drip Zone, Northwest Corner of Garage	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-23(1-6)-DUP	Drip Zone, Northwest Corner of Garage	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-09	S13	OU4-SS-09-COMP5(12-18)		
SS-09	S13	OU4-SS-09-20(12-18)	Drip Zone, Front of Houses	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-21(12-18)	Drip Zone, Northeast Side of House	Brown/Black Silt, Little F. Sand, Trace Clay
SS-09	S13	OU4-SS-09-22(12-18)	Drip Zone, North of House-Back Yard	Orange Brown/Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-23(12-18)	Drip Zone, Northwest Corner of Garage	Dark Brown/Brown/Black Silt, Little F. Sand, Trace Clay/Roots
SS-09	S13	OU4-SS-09-COMP5(6-12)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-09	S13	OU4-SS-09-20(6-12)	Drip Zone, Front of Houses	Black/Orange/Dark Brown Silt, Little F. Sand, Trace Roots/Wood Debris/F. Gravel
SS-09	S13	OU4-SS-09-21(6-12)	Drip Zone, Northeast Side of House	Gray Brown/Orange Brown/Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel/Clay
SS-09	S13	OU4-SS-09-22(6-12)	Drip Zone, North of House-Back Yard	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-09	S13	OU4-SS-09-23(6-12)	Drip Zone, Northwest Corner of Garage	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-09(0-1)	Garden	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-09(1-6)	Garden	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-09(12-18)	Garden	Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-09(6-12)	Garden	Orange F. Sand/Dark Brown Silt, Trace Roots
SS-10	S21	OU4-SS-10-10(0-1)	Garden	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-10(1-6)	Garden	Dark Brown Silt/Orange Brown F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-10(12-18)	Garden	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-10(6-12)	Garden	Orange Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-COMP1(0-1)		
SS-10	S21	OU4-SS-10-01(0-1)	Front Yard, Southwest Corner of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-02(0-1)	Front Yard, Southeast Corner of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-03(0-1)	Side Yard, East of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-04(0-1)	Side Yard, Northeast Corner of House	Brown/Gray Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP1(1-6)		
SS-10	S21	OU4-SS-10-01(1-6)	Front Yard, Southwest Corner of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-02(1-6)	Front Yard, Southeast Corner of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-03(1-6)	Side Yard, East of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-04(1-6)	Side Yard, Northeast Corner of House	Brown/Gray Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP1(12-18)		
SS-10	S21	OU4-SS-10-01(12-18)	Front Yard, Southwest Corner of House	Brown/Orange Brown Silt/F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-02(12-18)	Front Yard, Southeast Corner of House	Brown/Orange Brown F. Sand, Some Silt, Trace Roots
SS-10	S21	OU4-SS-10-03(12-18)	Side Yard, East of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-04(12-18)	Side Yard, Northeast Corner of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP1(6-12)		
SS-10	S21	OU4-SS-10-01(6-12)	Front Yard, Southwest Corner of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-02(6-12)	Front Yard, Southeast Corner of House	Brown F. Sand, Some Silt, Trace Roots
SS-10	S21	OU4-SS-10-03(6-12)	Side Yard, East of House	Orange Brown Silt, Some F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-10	S21	OU4-SS-10-04(6-12)	Side Yard, Northeast Corner of House	Brown/Dark Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP2(0-1)		
SS-10	S21	OU4-SS-10-05(0-1)	Back Yard, Northwest of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-06(0-1)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-07(0-1)	Back Yard, Northeast of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-08(0-1)	Back Yard, Northwest of House	Dark Brown/Black Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP2(1-6)		
SS-10	S21	OU4-SS-10-05(1-6)	Back Yard, Northwest of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-06(1-6)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-07(1-6)	Back Yard, Northeast of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-08(1-6)	Back Yard, Northwest of House	Dark Brown/Black Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP2(12-18)		
SS-10	S21	OU4-SS-10-05(12-18)	Back Yard, Northwest of House	Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-06(12-18)	Back Yard, North of House	Orange Brown F. Sand, Some Silt, Trace Roots
SS-10	S21	OU4-SS-10-07(12-18)	Back Yard, Northeast of House	Orange Brown F. Sand/Silt, Trace Roots
SS-10	S21	OU4-SS-10-08(12-18)	Back Yard, Northwest of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP2(6-12)		
SS-10	S21	OU4-SS-10-05(6-12)	Back Yard, Northwest of House	Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-06(6-12)	Back Yard, North of House	Brown/Orange Brown Silt/F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-07(6-12)	Back Yard, Northeast of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-08(6-12)	Back Yard, Northwest of House	Dark Brown/Black Silt, Some F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-COMP3(0-1)		
SS-10	S21	OU4-SS-10-11(0-1)	Drip Zone, Northeast Corner of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-12(0-1)	Drip Zone, Southeast Front of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-13(0-1)	Drip Zone, South Front of House	Brown Silt, Some F. Sand, Trace Roots/fF. Gravel
SS-10	S21	OU4-SS-10-14(0-1)	Drip Zone, Southwest Corner of House	Gray Brown Silt, Some F. Sand, Trace F. M. Gravel/Roots
SS-10	S21	OU4-SS-10-COMP3(1-6)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-10	S21	OU4-SS-10-11(1-6)	Drip Zone, Northeast Corner of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-12(1-6)	Drip Zone, Southeast Front of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-13(1-6)	Drip Zone, South Front of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-14(1-6)	Drip Zone, Southwest Corner of House	Gray Brown Silt, Some F. Sand, Trace F. M. Gravel/Roots
SS-10	S21	OU4-SS-10-14(1-6)-DUP	Drip Zone, Southwest Corner of House	Gray Brown Silt, Some F. Sand, Trace F. M. Gravel/Roots
SS-10	S21	OU4-SS-10-COMP3(12-18)		
SS-10	S21	OU4-SS-10-11(12-18)	Drip Zone, Northeast Corner of House	Dark Brown/Brown Silt, Some F. Sand, Trace Roots/Clay/F. Gravel
SS-10	S21	OU4-SS-10-12(12-18)	Drip Zone, Southeast Front of House	Brown/Orange Brown Silt/F. Sand, Trace Roots/Clay/F.Gravel
SS-10	S21	OU4-SS-10-13(12-18)	Drip Zone, South Front of House	Orange Brown Silt, Some F. Sand, Trace C. Sand/F. Gravel/Slag
SS-10	S21	OU4-SS-10-14(12-18)	Drip Zone, Southwest Corner of House	Brown Silt/Orange Brown Silt/F. Sand, Trace F. Gravel
SS-10	S21	OU4-SS-10-COMP3(6-12)		
SS-10	S21	OU4-SS-10-11(6-12)	Drip Zone, Northeast Corner of House	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-12(6-12)	Drip Zone, Southeast Front of House	Dark Brown/Brown Silt, Little F. Sand, Trace Roots
SS-10	S21	OU4-SS-10-13(6-12)	Drip Zone, South Front of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-10	S21	OU4-SS-10-14(6-12)	Drip Zone, Southwest Corner of House	Brown Silt, Some F. Sand, Trace F. Gravel
SS-11	D16	OU4-SS-11-COMP1(0-1)		
SS-11	D16	OU4-SS-11-01(0-1)	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-02(0-1)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-03(0-1)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-04(0-1)	Side Yard, East of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-COMP1(1-6)		
SS-11	D16	OU4-SS-11-01(1-6)	Side Yard, West of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-02(1-6)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-03(1-6)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-04(1-6)	Side Yard, East of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-04(1-6)-DUP	Side Yard, East of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-COMP1(12-18)		
SS-11	D16	OU4-SS-11-01(12-18)	Side Yard, West of House	Brown/Orange/Dark Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-02(12-18)	Front Yard, South of House	Gray Brown/Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-11	D16	OU4-SS-11-03(12-18)	Front Yard, South of House	Gray Brown Silt/Light Brown F. Sand, Trace Roots/F.M. Gravel
SS-11	D16	OU4-SS-11-04(12-18)	Side Yard, East of House	Orange Brown/Dark Brown Silt, Little F. Sand, Trace Roots/Clay
SS-11	D16	OU4-SS-11-COMP1(6-12)		
SS-11	D16	OU4-SS-11-01(6-12)	Side Yard, West of House	Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-02(6-12)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-03(6-12)	Front Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-04(6-12)	Side Yard, East of House	Gray Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel/Clay
SS-11	D16	OU4-SS-11-COMP2(0-1)		
SS-11	D16	OU4-SS-11-05(0-1)	Back Yard, North of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-06(0-1)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-07(0-1)	Back Yard, Northeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-08(0-1)	Back Yard, Northeast of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-09(0-1)	Back Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-09(0-1)-DUP	Back Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-COMP2(1-6)		
SS-11	D16	OU4-SS-11-05(1-6)	Back Yard, North of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-06(1-6)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-07(1-6)	Back Yard, Northeast of House	Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-08(1-6)	Back Yard, Northeast of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-09(1-6)	Back Yard, North of House	Gray Brown/Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-COMP2(12-18)		
SS-11	D16	OU4-SS-11-05(12-18)	Back Yard, North of House	Orange Brown/Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-06(12-18)	Back Yard, North of House	Light Brown F. Sand, Some Silt, Trace Roots
SS-11	D16	OU4-SS-11-07(12-18)	Back Yard, Northeast of House	Brown/Dark Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-08(12-18)	Back Yard, Northeast of House	Brown Silt, Some F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-09(12-18)	Back Yard, North of House	Light Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-COMP2(12-18)-DUP	Back Yard, North of House	Light Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-COMP2(6-12)		
SS-11	D16	OU4-SS-11-05(6-12)	Back Yard, North of House	Dark Brown/Orange Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-06(6-12)	Back Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/Rubber
SS-11	D16	OU4-SS-11-07(6-12)	Back Yard, Northeast of House	Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-11	D16	OU4-SS-11-08(6-12)	Back Yard, Northeast of House	Brown Silt, Some F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-09(6-12)	Back Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-COMP3(0-1)		
SS-11	D16	OU4-SS-11-10(0-1)	Drip Zone, Northeast Corner of House	Gray Brown Silt, Some F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-11(0-1)	Drip Zone, Southwest Corner of House	Dark Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-12(0-1)	Drip Zone, Northwest Corner of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-13(0-1)	Drip Zone, South Front of House	Dark Brown Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-11	D16	OU4-SS-11-13(0-1)-DUP	Drip Zone, South Front of House	Dark Brown Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-11	D16	OU4-SS-11-COMP3(1-6)		
SS-11	D16	OU4-SS-11-10(1-6)	Drip Zone, Northeast Corner of House	Gray Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-11(1-6)	Drip Zone, Southwest Corner of House	Dark Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-12(1-6)	Drip Zone, Northwest Corner of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-13(1-6)	Drip Zone, South Front of House	Dark Brown Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-11	D16	OU4-SS-11-COMP3(12-18)		
SS-11	D16	OU4-SS-11-10(12-18)	Drip Zone, Northeast Corner of House	Orange Brown/Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-11(12-18)	Drip Zone, Southwest Corner of House	Dark Brown/Orange/Black Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-12(12-18)	Drip Zone, Northwest Corner of House	Dark Brown Silt, Little F. Sand, Trace Roots/Brick
SS-11	D16	OU4-SS-11-13(12-18)	Drip Zone, South Front of House	Dark Brown Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-11	D16	OU4-SS-11-COMP3(6-12)		
SS-11	D16	OU4-SS-11-10(6-12)	Drip Zone, Northeast Corner of House	Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-11(6-12)	Drip Zone, Southwest Corner of House	Dark Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-11	D16	OU4-SS-11-12(6-12)	Drip Zone, Northwest Corner of House	Dark Brown Silt/F. Gravel, Little F. Sand, Trace Roots
SS-11	D16	OU4-SS-11-13(6-12)	Drip Zone, South Front of House	Dark Brown Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-12	S19	OU4-SS-12-COMP1(0-1)		
SS-12	S19	OU4-SS-12-01(0-1)	Front Yard, Northeast Corner of House	Dark Brown Silt, Trace Roots/F. Sand/Gravel
SS-12	S19	OU4-SS-12-02(0-1)	Front Yard, Northwest Corner of House	Dark Brown Silt, Trace Roots/F. Sand/Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-12	S19	OU4-SS-12-03(0-1)	Front Yard, Northwest of House	Dark Brown Silt, Trace Roots/F. Sand/Gravel
SS-12	S19	OU4-SS-12-04(0-1)	Front Yard, Northwest of House	Dark Brown Silt, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-05(0-1)	Front-SideYard, West of House	Dark Brown F. Sand/Silt, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-05(0-1)-DUP	Front-SideYard, West of House	Dark Brown F. Sand/Silt, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-COMP1(1-6)		
SS-12	S19	OU4-SS-12-01(1-6)	Front Yard, Northeast Corner of House	Dark Brown Silt/Orange Brown F. Sand, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-02(1-6)	Front Yard, Northwest Corner of House	Dark Brown Silt/Light Brown F. Sand, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-03(1-6)	Front Yard, Northwest of House	Dark Brown Silt, Trace Roots/F. Sand/Gravel
SS-12	S19	OU4-SS-12-04(1-6)	Front Yard, Northwest of House	Dark Brown Silt/Light Brown F. Sand, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-05(1-6)	Front-SideYard, West of House	Dark Brown F. Sand/Silt, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-COMP1(12-18)		
SS-12	S19	OU4-SS-12-01(12-18)	Front Yard, Northeast Corner of House	Orange/Brown F. Sand, Trace Silt/Roots/Gravel
SS-12	S19	OU4-SS-12-02(12-18)	Front Yard, Northwest Corner of House	Light Brown/Orange/Brown F. Sand, Trace Silt/F. Gravel
SS-12	S19	OU4-SS-12-03(12-18)	Front Yard, Northwest of House	Orange Brown F. Sand, Trace Gravel
SS-12	S19	OU4-SS-12-04(12-18)	Front Yard, Northwest of House	Orange Brown/Light Brown F. Sand/Silt/Gravel
SS-12	S19	OU4-SS-12-05(12-18)	Front-SideYard, West of House	Light Brown F. Sand, Trace Silt/Gravel
SS-12	S19	OU4-SS-12-COMP1(6-12)		
SS-12	S19	OU4-SS-12-01(6-12)	Front Yard, Northeast Corner of House	Orange/Brown F. Sand, Trace Silt/Roots/Gravel
SS-12	S19	OU4-SS-12-02(6-12)	Front Yard, Northwest Corner of House	Light Brown F. Sand, Trace Silt/F. Gravel
SS-12	S19	OU4-SS-12-03(6-12)	Front Yard, Northwest of House	Orange Brown F. Sand/Silt, Trace Gravel
SS-12	S19	OU4-SS-12-04(6-12)	Front Yard, Northwest of House	Light Brown F. Sand, Trace Silt
SS-12	S19	OU4-SS-12-05(6-12)	Front-SideYard, West of House	Light Brown F. Sand, Trace Silt/Gravel
SS-12	S19	OU4-SS-12-COMP2(0-1)		
SS-12	S19	OU4-SS-12-06(0-1)	Side Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-07(0-1)	Side Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-12	S19	OU4-SS-12-08(0-1)	Side Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-12	S19	OU4-SS-12-09(0-1)	Back Yard, Southwest of House	Gray Brown Silt, Trace Roots/F. Sand/Gravel
SS-12	S19	OU4-SS-12-10(0-1)	Back Yard, South of House	Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-COMP2(1-6)		
SS-12	S19	OU4-SS-12-06(1-6)	Side Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-07(1-6)	Side Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-12	S19	OU4-SS-12-08(1-6)	Side Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-09(1-6)	Back Yard, Southwest of House	Gray Brown Silt, Trace Roots/F. Sand/Gravel
SS-12	S19	OU4-SS-12-10(1-6)	Back Yard, South of House	Dark Brown Silt/Dark Brown/Light Orange Brown F. Sand, Trace Roots/Gravel
SS-12	S19	OU4-SS-12-COMP2(12-18)		
SS-12	S19	OU4-SS-12-06(12-18)	Side Yard, West of House	Orange Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-07(12-18)	Side Yard, West of House	Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-08(12-18)	Side Yard, West of House	Orange Brown F. Sand, Little Silt, Trace Roots/F. Gravel
SS-12	S19	OU4-SS-12-09(12-18)	Back Yard, Southwest of House	Orange Brown F. Sand, Trace Silt/Gravel
SS-12	S19	OU4-SS-12-10(12-18)	Back Yard, South of House	Light Orange Brown F. Sand, Trace Silt/Gravel
SS-12	S19	OU4-SS-12-COMP2(6-12)		
SS-12	S19	OU4-SS-12-06(6-12)	Side Yard, West of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-07(6-12)	Side Yard, West of House	Brown Silt/F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-08(6-12)	Side Yard, West of House	Orange Brown F. Sand, Little Silt, Trace Roots/F. Gravel
SS-12	S19	OU4-SS-12-09(6-12)	Back Yard, Southwest of House	Dark Gray Silt/F. Sand, Trace Gravel
SS-12	S19	OU4-SS-12-10(6-12)	Back Yard, South of House	Light Orange Brown F. Sand, Trace Silt/Gravel
SS-12	S19	OU4-SS-12-COMP3(0-1)		
SS-12	S19	OU4-SS-12-11(0-1)	Drip Zone, Southwest Corner of House	Orange Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-12(0-1)	Drip Zone, South of House	Black/Brown F. Sand, Little Silt, Trace Roots/F. Gravel
SS-12	S19	OU4-SS-12-13(0-1)	Drip Zone, East Side of House	Black/Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-14(0-1)	Drip Zone, North of House (in bushes) Front	Dark Brown Silt/Orange Brown F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-COMP3(1-6)		
SS-12	S19	OU4-SS-12-11(1-6)	Drip Zone, Southwest Corner of House	Orange Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-12(1-6)	Drip Zone, South of House	Black/Brown/Orange Brown F. Sand, Little Silt, Trace Roots/F. Gravel
SS-12	S19	OU4-SS-12-13(1-6)	Drip Zone, East Side of House	Black/Brown F. Sand/ Brown/Orange Silt, Trace Roots
SS-12	S19	OU4-SS-12-14(1-6)	Drip Zone, North of House (in bushes) Front	Dark Brown Silt/Orange Brown F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-12	S19	OU4-SS-12-14(1-6)-DUP	Drip Zone, North of House (in bushes) Front	Dark Brown Silt/Orange Brown F. Sand, Trace Roots
SS-12	S19	OU4-SS-12-COMP3(12-18)		
SS-12	S19	OU4-SS-12-11(12-18)	Drip Zone, Southwest Corner of House	Orange Brown F. Sand, Little Silt
SS-12	S19	OU4-SS-12-12(12-18)	Drip Zone, South of House	Orange Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-13(12-18)	Drip Zone, East Side of House	Dark Brown F. Sand, Little Silt
SS-12	S19	OU4-SS-12-14(12-18)	Drip Zone, North of House (in bushes) Front	Orange Brown F. Sand, Some Silt, Trace Roots
SS-12	S19	OU4-SS-12-COMP3(6-12)		
SS-12	S19	OU4-SS-12-11(6-12)	Drip Zone, Southwest Corner of House	Black/Orange Brown F. Sand, Little Silt, Trace Coal
SS-12	S19	OU4-SS-12-12(6-12)	Drip Zone, South of House	Orange Brown F. Sand, Little Silt, Trace Roots
SS-12	S19	OU4-SS-12-13(6-12)	Drip Zone, East Side of House	Brown/Orange/Dark Brown Silt/F. Sand
SS-12	S19	OU4-SS-12-14(6-12)	Drip Zone, North of House (in bushes) Front	Orange Brown F. Sand, Some Silt, Trace Roots
SS-13	S02	OU4-SS-13-COMP1(0-1)		
SS-13	S02	OU4-SS-13-01(0-1)	Front/Side Yard, Northwest of House	Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-02(0-1)	Side Yard, South of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-03(0-1)	Side Yard, South of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-04(0-1)	Side Yard, South of House	Orange Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-05(0-1)	Side Yard, South of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP1(1-6)		
SS-13	S02	OU4-SS-13-01(1-6)	Front/Side Yard, Northwest of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-02(1-6)	Side Yard, South of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-03(1-6)	Side Yard, South of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-04(1-6)	Side Yard, South of House	Orange Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-05(1-6)	Side Yard, South of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP1(12-18)		
SS-13	S02	OU4-SS-13-01(12-18)	Front/Side Yard, Northwest of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-02(12-18)	Side Yard, South of House	Dark Brown/Black Silt, Little F. Sand, Trace Woody Debris
SS-13	S02	OU4-SS-13-03(12-18)	Side Yard, South of House	Brown F. M. Sand, Some Silt, Trace Coal/F. Gravel
SS-13	S02	OU4-SS-13-04(12-18)	Side Yard, South of House	Brown Silt, Some F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-05(12-18)	Side Yard, South of House	Orange Brown/Brown Silt, Some F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP1(6-12)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-13	S02	OU4-SS-13-01(6-12)	Front/Side Yard, Northwest of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-02(6-12)	Side Yard, South of House	Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-03(6-12)	Side Yard, South of House	Orange Brown F. Sand, Some Silt, Trace Roots/M. Sand
SS-13	S02	OU4-SS-13-04(6-12)	Side Yard, South of House	Orange Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-05(6-12)	Front/Side Yard, Northwest of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP2(0-1)		
SS-13	S02	OU4-SS-13-06(0-1)	Back Yard, Southeast of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-07(0-1)	Back Yard, Southesat of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-08(0-1)	Back Yard, Southeast of House, Near Garage	Brown Silt, Little F. Sand, Trace Roots/M. Sand/F. Gravel
SS-13	S02	OU4-SS-13-09(0-1)	Back Yard, East of House, Infront of Garage	Brown Silt, Little F. Sand, Trace Roots/Clay
SS-13	S02	OU4-SS-13-10(0-1)	Back Yard, East of House, Northeast of Back Porch	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-COMP2(1-6)		
SS-13	S02	OU4-SS-13-06(1-6)	Back Yard, Southeast of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-07(1-6)	Back Yard, Southesat of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-08(1-6)	Back Yard, Southeast of House, Near Garage	Brown Silt/Orange Brown Silt/Clay, Little F. Sand, Trace Roots, M. Sand/F. Gravel
SS-13	S02	OU4-SS-13-09(1-6)	Back Yard, East of House, Infront of Garage	Brown Silt, Little F. Sand, Trace Roots/Clay
SS-13	S02	OU4-SS-13-10(1-6)	Back Yard, East of House, Northeast of Back Porch	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-10(1-6)-DUP	Back Yard, East of House, Northeast of Back Porch	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-COMP2(12-18)		
SS-13	S02	OU4-SS-13-06(12-18)	Back Yard, Southeast of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-07(12-18)	Back Yard, Southesat of House	Orange Brown/Dark Brown Silt/Clay, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-08(12-18)	Back Yard, Southeast of House, Near Garage	Dark Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-13	S02	OU4-SS-13-09(12-18)	Back Yard, East of House, Infront of Garage	Brown/Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-10(12-18)	Back Yard, East of House, Northeast of Back Porch	Dark Brown Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP2(6-12)		
SS-13	S02	OU4-SS-13-06(6-12)	Back Yard, Southeast of House	Brown/Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-07(6-12)	Back Yard, Southesat of House	Brown/Orange Brown Silt/Clay, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-08(6-12)	Back Yard, Southeast of House, Near Garage	Orange Brown/Dark Brown Silt/Clay, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-09(6-12)	Back Yard, East of House, Infront of Garage	Brown Silt, Little F. Sand, Trace Roots/Clay
SS-13	S02	OU4-SS-13-10(6-12)	Back Yard, East of House, Northeast of Back Porch	Orange Brown/Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-COMP3(0-1)		
SS-13	S02	OU4-SS-13-11(0-1)	Drip Zone, Northwest Corner of House	Brown/Orange Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-12(0-1)	Drip Zone, Northweast Corner of House	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-13(0-1)	Drip Zone, Southwest Corner of House	Brown Silt, Little F. Sand, Trace Roots/Clay/F. Gravel
SS-13	S02	OU4-SS-13-14(0-1)	Drip Zone, East of House in Flower Garden	Brown/Black Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP3(1-6)		
SS-13	S02	OU4-SS-13-11(1-6)	Drip Zone, Northwest Corner of House	Brown/Orange Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-12(1-6)	Drip Zone, Northweast Corner of House	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-13(1-6)	Drip Zone, Southwest Corner of House	Brown Silt, Little F. Sand, Trace Roots/Clay/F. Gravel
SS-13	S02	OU4-SS-13-14(1-6)	Drip Zone, East of House in Flower Garden	Brown/Black Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-14(1-6)-DUP	Drip Zone, East of House in Flower Garden	Brown/Black Silt, Little F. Sand, Trace Roots
SS-13	S02	OU4-SS-13-COMP3(12-18)		
SS-13	S02	OU4-SS-13-11(12-18)	Drip Zone, Northwest Corner of House	Brown Silt, Trace F. Sand/Root
SS-13	S02	OU4-SS-13-12(12-18)	Drip Zone, Northweast Corner of House	Brown Silt, Little F. Sand, Trace Roots/Clay
SS-13	S02	OU4-SS-13-13(12-18)	Drip Zone, Southwest Corner of House	Orange/Brown/Black Silt, Little F. Sand, Trace Clay/Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-13	S02	OU4-SS-13-14(12-18)	Drip Zone, East of House in Flower Garden	Orange Brown/Dark Brown Silt, Little F. Sand, Trace Clay/Roots
SS-13	S02	OU4-SS-13-COMP3(12-18)-DUP		
SS-13	S02	OU4-SS-13-11(12-18)	Drip Zone, Northwest Corner of House	Brown Silt, Trace F. Sand/Root
SS-13	S02	OU4-SS-13-12(12-18)	Drip Zone, Northweast Corner of House	Brown Silt, Little F. Sand, Trace Roots/Clay
SS-13	S02	OU4-SS-13-13(12-18)	Drip Zone, Southwest Corner of House	Orange/Brown/Black Silt, Little F. Sand, Trace Clay/Roots
SS-13	S02	OU4-SS-13-14(12-18)	Drip Zone, East of House in Flower Garden	Orange Brown/Dark Brown Silt, Little F. Sand, Trace Clay/Roots
SS-13	S02	OU4-SS-13-COMP3(6-12)		
SS-13	S02	OU4-SS-13-11(6-12)	Drip Zone, Northwest Corner of House	Brown/Orange Silt, Some F. Sand, Trace Roots/F. Gravel
SS-13	S02	OU4-SS-13-12(6-12)	Drip Zone, Northweast Corner of House	Light Brown/Dark Brown/Black Silt, Little F. Sand, trace Roots/F. Gravel/Coal
SS-13	S02	OU4-SS-13-13(6-12)	Drip Zone, Southwest Corner of House	Brown/Orange/Black Silt, Little F. Sand, Trace Clay/Roots/F. Gravel
SS-13	S02	OU4-SS-13-14(6-12)	Drip Zone, East of House in Flower Garden	Orange Brown Silt, Little F. Sand, Trace Clay/Roots
SS-14	W14	OU4-SS-14-16(0-1)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-16(1-6)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-16(12-18)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-16(6-12)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-17(0-1)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-17(1-6)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-17(12-18)	Garden	Light Brown/Dark Brown Silt, Little F. M. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-17(12-18)-DUP	Garden	
SS-14	W14	OU4-SS-14-17(6-12)	Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP1(0-1)		
SS-14	W14	OU4-SS-14-01(0-1)	Front/Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-02(0-1)	Front/Side Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-03(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-04(0-1)	Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-05(0-1)	Side Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP1(1-6)		
SS-14	W14	OU4-SS-14-01(1-6)	Front/Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-02(1-6)	Front/Side Yard, North of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-03(1-6)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-04(1-6)	Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-05(1-6)	Side Yard, North of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP1(12-18)		
SS-14	W14	OU4-SS-14-01(12-18)	Front/Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-14	W14	OU4-SS-14-02(12-18)	Front/Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-03(12-18)	Side Yard, North of House	Orange Brown F. Sand, Little Silt, Trace Roots
SS-14	W14	OU4-SS-14-04(12-18)	Side Yard, North of House	Light Brown/Brown Silt, Some F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-05(12-18)	Side Yard, North of House	Brown/Orange/Dark Brown Silt/F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP1(6-12)		
SS-14	W14	OU4-SS-14-01(6-12)	Front/Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-02(6-12)	Front/Side Yard, North of House	Gray Brown/Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-03(6-12)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-04(6-12)	Side Yard, North of House	Light Brown Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-05(6-12)	Side Yard, North of House	Brown Silt, Some F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-05(6-12)-DUP	Side Yard, North of House	Brown Silt, Some F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP2(0-1)		
SS-14	W14	OU4-SS-14-06(0-1)	Back/Side Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-07(0-1)	Back/Side Yard, Northwest of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-08(0-1)	Back/Side Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-09(0-1)	Back/Side Yard, Northwest, Near Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-10(0-1)	Back/Side Yard, Northwest, Near Garden	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP2(1-6)		
SS-14	W14	OU4-SS-14-06(1-6)	Back/Side Yard, Northwest of House	Gray Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-07(1-6)	Back/Side Yard, Northwest of House	Gray/Brown Silt, Little F. Sand, Trace Roots/Clay/F. Gravel
SS-14	W14	OU4-SS-14-08(1-6)	Back/Side Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-09(1-6)	Back/Side Yard, Northwest, Near Garden	Light Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-10(1-6)	Back/Side Yard, Northwest, Near Garden	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP2(12-18)		
SS-14	W14	OU4-SS-14-06(12-18)	Back/Side Yard, Northwest of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-07(12-18)	Back/Side Yard, Northwest of House	Brown/Dark Brown Silt, Little F. Sand, Trace Roots/Clay
SS-14	W14	OU4-SS-14-08(12-18)	Back/Side Yard, Northwest of House	Gray Brown/Orange/Brown Silt, Some F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-14	W14	OU4-SS-14-09(12-18)	Back/Side Yard, Northwest, Near Garden	Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-10(12-18)	Back/Side Yard, Northwest, Near Garden	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP2(12-18)-DUP	Back/Side Yard, Northwest, Near Garden	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP2(6-12)		
SS-14	W14	OU4-SS-14-06(6-12)	Back/Side Yard, Northwest of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-07(6-12)	Back/Side Yard, Northwest of House	Brown Silt, Little F. Sand, Trace Roots/Clay
SS-14	W14	OU4-SS-14-08(6-12)	Back/Side Yard, Northwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-09(6-12)	Back/Side Yard, Northwest, Near Garden	Light Brown/Orange Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-10(6-12)	Back/Side Yard, Northwest, Near Garden	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-10(6-12)-DUP	Back/Side Yard, Northwest, Near Garden	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP3(0-1)		
SS-14	W14	OU4-SS-14-11(0-1)	Back Yard, West of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-12(0-1)	Back Yard, West of House	Dark Brown Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-13(0-1)	Back Yard, West of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-14(0-1)	Back Yard, West of House	Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-14	W14	OU4-SS-14-15(0-1)	Back Yard, West of House	Brown Orange Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP3(1-6)		
SS-14	W14	OU4-SS-14-11(1-6)	Back Yard, West of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-12(1-6)	Back Yard, West of House	Dark Brown/Brown Silt, Little F. Sand, Trace Roots/M. Sand/F. Gravel
SS-14	W14	OU4-SS-DUP-7	Back Yard, West of House	Dark Brown/Brown Silt, Little F. Sand, Trace Roots/M. Sand/F. Gravel
SS-14	W14	OU4-SS-14-13(1-6)	Back Yard, West of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-14(1-6)	Back Yard, West of House	Brown Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-14	W14	OU4-SS-14-15(1-6)	Back Yard, West of House	Brown Orange Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-15(1-6)-DUP	Back Yard, West of House	Brown Orange Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP3(12-18)		
SS-14	W14	OU4-SS-14-11(12-18)	Back Yard, West of House	Brown Silt/Brown/Black F. M. Sand, Trace Roots/F. Gravel/Glass
SS-14	W14	OU4-SS-14-12(12-18)	Back Yard, West of House	Brown F. M. Sand, Little Silt, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-13(12-18)	Back Yard, West of House	Brown/Dark Brown/Orange Silt, Some F. M. Sand, Trace Roots/Woody Debris/F. Gravel
SS-14	W14	OU4-SS-14-14(12-18)	Back Yard, West of House	Brown Gray Silt/Orange Brown F. M. Sand, Trace F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-14	W14	OU4-SS-14-15(12-18)	Back Yard, West of House	Brown Orange Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP3(6-12)		
SS-14	W14	OU4-SS-14-11(6-12)	Back Yard, West of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-12(6-12)	Back Yard, West of House	Brown Silt/Brown F. M. Sand, Trace Roots/ M. Sand/F. Gravel
SS-14	W14	OU4-SS-14-13(6-12)	Back Yard, West of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-14(6-12)	Back Yard, West of House	Brown/Brown Gray Silt, Some F. Sand, Little F. Gravel, Trace Roots
SS-14	W14	OU4-SS-14-15(6-12)	Back Yard, West of House	Brown Orange Silt, Little F. Sand, Trace Roots
SS-14	W14	OU4-SS-14-COMP4(0-1)		
SS-14	W14	OU4-SS-14-18(0-1)	Drip Zone	Dark Brown Orange Silt, Some F. Sand, Trace Roots/Brick/Coal
SS-14	W14	OU4-SS-14-19(0-1)	Drip Zone	Dark Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-19(0-1) DUP	Drip Zone	Dark Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-20(0-1)	Drip Zone	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-20(0-1) DUP	Drip Zone	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-21(0-1)	Drip Zone	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP4(1-6)		
SS-14	W14	OU4-SS-14-18(1-6)	Drip Zone	Dark Brown Orange Silt, Some F. Sand, Trace Roots/Brick/Coal
SS-14	W14	OU4-SS-14-19(1-6)	Drip Zone	Dark Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-20(1-6)	Drip Zone	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-21(1-6)	Drip Zone	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-21(1-6)-DUP	Drip Zone	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-COMP4(12-18)		
SS-14	W14	OU4-SS-14-18(12-18)	Drip Zone	Brown/Gray/Black/Orange Brown Silt/Clay, Little F. Sand, Trace Coal/F. Gravel
SS-14	W14	OU4-SS-14-19(12-18)	Drip Zone	Brown Silt/Clay, Trace F. Sand/F. Gravel
SS-14	W14	OU4-SS-14-20(12-18)	Drip Zone	Dark Brown/Light Brown Silt/F. M. Sand, Little Clay, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-21(12-18)	Drip Zone	Light Brown Orange/Dark Brown F. M. Sand, Little Silt, Trace F. Gravel
SS-14	W14	OU4-SS-14-COMP4(6-12)		
SS-14	W14	OU4-SS-14-18(6-12)	Drip Zone	Dark Brown Orange/Brown/Gray/Black Silt/Clay, Some F. Sand, Trace Roots/Brick/Coal/F. Gravel
SS-14	W14	OU4-SS-14-19(6-12)	Drip Zone	Dark Brown/Black Silt/Clay, Some F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-20(6-12)	Drip Zone	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-14	W14	OU4-SS-14-21(6-12)	Drip Zone	Dark Brown Silt/Light Brown Orange F. M. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP1(0-1)		
SS-15	S18	OU4-SS-15-01(0-1)	Side Yard, South of House	Dark Gray Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-02(0-1)	Side Yard, South of House	Dark Brown Silt/F. Sand, Trace Roots/Moss/Gravel
SS-15	S18	OU4-SS-15-03(0-1)	Side Yard, South of House	Dark Gray Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-04(0-1)	Side Yard, South of House	Dark Gray F. Sand, Trace Roots/Silt/Gravel
SS-15	S18	OU4-SS-15-05(0-1)	Side Yard, South of House	Dark Gray Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-COMP1(1-6)		
SS-15	S18	OU4-SS-15-01(1-6)	Side Yard, South of House	Dark Gray/Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-02(1-6)	Side Yard, South of House	Dark Brown Silt/F. Sand, Trace Roots/Moss/Gravel
SS-15	S18	OU4-SS-15-03(1-6)	Side Yard, South of House	Dark Gray Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-04(1-6)	Side Yard, South of House	Dark Gray F. Sand, Trace Roots/Silt/Gravel
SS-15	S18	OU4-SS-15-05(1-6)	Side Yard, South of House	Dark Gray Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-COMP1(12-18)		

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-15	S18	OU4-SS-15-01(12-18)	Side Yard, South of House	Dark Brown/Light Brown F. Sand/Gravel
SS-15	S18	OU4-SS-15-02(12-18)	Side Yard, South of House	Orange Brown F. Sand, Trace Gravel
SS-15	S18	OU4-SS-15-03(12-18)	Side Yard, South of House	Dark Brown/Orange Brown Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-04(12-18)	Side Yard, South of House	Dark Gray Silt, Trace F. Sand/Roots/Gravel/Slag
SS-15	S18	OU4-SS-15-05(12-18)	Side Yard, South of House	Light Gray F. Sand/Gravel
SS-15	S18	OU4-SS-15-COMP1(6-12)		
SS-15	S18	OU4-SS-15-01(6-12)	Side Yard, South of House	Dark Brown F. Sand/Gravel
SS-15	S18	OU4-SS-15-02(6-12)	Side Yard, South of House	Dark Brown/Orange Brown F. Sand, Trace Silt/Gravel
SS-15	S18	OU4-SS-15-03(6-12)	Side Yard, South of House	Dark Gray/Dark Brown Silt/F. Sand, Trace Roots/Gravel
SS-15	S18	OU4-SS-15-04(6-12)	Side Yard, South of House	Dark Gray F. Sand/Silt, Trace Roots/Gravel/Slag
SS-15	S18	OU4-SS-15-05(6-12)	Side Yard, South of House	Dark Gray/Light Gray Silt/F. Sand/Gravel, Trace Roots
SS-15	S18	OU4-SS-15-05(6-12)-DUP	Side Yard, South of House	Dark Gray/Light Gray Silt/F. Sand/Gravel, Trace Roots
SS-15	S18	OU4-SS-15-COMP2(0-1)		
SS-15	S18	OU4-SS-15-06(0-1)	Front Yard, West of House	Gray Brown Silt, Some F. Sand, Trace Roots/m. Sand/F.M. Gravel
SS-15	S18	OU4-SS-15-07(0-1)	Front/Side Yard, Northwest of House	Gray Brown Silt, Little F. M. Sand, Trace Roots/F.M. Gravel
SS-15	S18	OU4-SS-15-08(0-1)	Side Yard, North of House	Dark Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-08(0-1) DUP	Side Yard, North of House	Dark Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-09(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-10(0-1)	Side Yard, North of House	Brown Silt, Some F. Sand, Trace Roots
SS-15	S18	OU4-SS-15-COMP2(1-6)		
SS-15	S18	OU4-SS-15-06(1-6)	Front Yard, West of House	Gray Brown Silt, Some F. Sand, Trace Roots/m. Sand/F.M. Gravel
SS-15	S18	OU4-SS-15-07(1-6)	Front/Side Yard, Northwest of House	Gray Brown Silt, Little F. M. Sand, Trace Roots/F.M. Gravel
SS-15	S18	OU4-SS-15-08(1-6)	Side Yard, North of House	Dark Gray/Brown Silt, Little F. M. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-09(1-6)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-10(1-6)	Side Yard, North of House	Brown Silt, Some F. Sand, Trace Roots
SS-15	S18	OU4-SS-15-COMP2(12-18)		
SS-15	S18	OU4-SS-15-06(12-18)	Front Yard, West of House	Brown Silt, Some F. M. Sand, Trace Roots/F.M. Gravel
SS-15	S18	OU4-SS-15-07(12-18)	Front/Side Yard, Northwest of House	Gray Brown Silt, Little F. M. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-08(12-18)	Side Yard, North of House	Orange Brown Silt, Little F. M. Sand, Trace Roots
SS-15	S18	OU4-SS-15-09(12-18)	Side Yard, North of House	Orange Brown F. M. Gravel, Some Silt, Trace F. Sand
SS-15	S18	OU4-SS-15-10(12-18)	Side Yard, North of House	Orange Brown Silt, Some F. Sand, Trace F. M. Gravel
SS-15	S18	OU4-SS-15-COMP2(6-12)		
SS-15	S18	OU4-SS-15-06(6-12)	Front Yard, West of House	Gray Brown Silt, Some F. Sand, Trace M. Sand/F.M. Gravel/Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-15	S18	OU4-SS-15-07(6-12)	Front/Side Yard, Northwest of House	Gray Brown Silt, Little F. M. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-08((6-12)	Side Yard, North of House	Dark Gray/Brown/Orange Brown Silt, Little F. M. Sand, Trace Roots/F.M. Gravel
SS-15	S18	OU4-SS-15-09(6-12)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. M. Gravel
SS-15	S18	OU4-SS-15-10(6-12)	Side Yard, North of House	Brown/Orange Brown Silt, Some F. Sand, Trace F.M. Gravel/Roots
SS-15	S18	OU4-SS-15-COMP3(0-1)		
SS-15	S18	OU4-SS-15-11(0-1)	Side Yard, North of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-12(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-13(0-1)	Side Yard, North of House	Dark Brown Silt, Little F.M. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-14(0-1)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-15(0-1)	Side Yard, North of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-15(0-1)-DUP	Side Yard, North of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP3(1-6)		
SS-15	S18	OU4-SS-15-11(1-6)	Side Yard, North of House	Dark Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-12(1-6)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-13(1-6)	Side Yard, North of House	Dark Brown Silt, Little F.M. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-14(1-6)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-15(1-6)	Side Yard, North of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP3(12-18)		
SS-15	S18	OU4-SS-15-11(12-18)	Side Yard, North of House	Orange Brown Silt, Some F. M. Gravel, Trace F. Sand
SS-15	S18	OU4-SS-15-12(12-18)	Side Yard, North of House	Orange Brown Silt, Little F. M. Sand, Trace Clay/F. Gravel
SS-15	S18	OU4-SS-15-13(12-18)	Side Yard, North of House	Orange Brown Silt, Some F.M. Gravel, Trace F. Sand
SS-15	S18	OU4-SS-15-14(12-18)	Side Yard, North of House	Brown Silt, Some F. M. Gravel, Little F. Sand, Trace Roots
SS-15	S18	OU4-SS-15-15(12-18)	Side Yard, North of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP3(6-12)		
SS-15	S18	OU4-SS-15-11(6-12)	Side Yard, North of House	Dark Brown/Orange Brown Silt, Some F. M. Gravel, Little F. Sand, Trace Roots
SS-15	S18	OU4-SS-15-12(6-12)	Side Yard, North of House	Brown/Orange Brown Silt, Little F. M. Sand, Trace Roots/Clay/F. Gravel
SS-15	S18	OU4-SS-15-13(6-12)	Side Yard, North of House	Orange Brown Silt, Little F. Sand, Trace F. Gravel
SS-15	S18	OU4-SS-15-14(6-12)	Side Yard, North of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-15(6-12)	Side Yard, North of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-15(6-12)-DUP	Side Yard, North of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP4(0-1)		
SS-15	S18	OU4-SS-15-16(0-1)	Drip Zone, Northwest Corner of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-17(0-1)	Drip Zone, Northeast Corner of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-15	S18	OU4-SS-15-18(0-1)	Drip Zone, West Front of House	Dark Brown Silt, Some F. Sand, Little F. Gravel
SS-15	S18	OU4-SS-15-19(0-1)	Drip Zone, Southwest Corner of House	Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP4(1-6)		
SS-15	S18	OU4-SS-15-16(1-6)	Drip Zone, Northwest Corner of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-17(1-6)	Drip Zone, Northeast Corner of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-18(1-6)	Drip Zone, West Front of House	Dark Brown Silt, Some F. Sand, Little F. Gravel
SS-15	S18	OU4-SS-15-19(1-6)	Drip Zone, Southwest Corner of House	Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-15	S18	OU4-SS-15-COMP4(12-18)		
SS-15	S18	OU4-SS-15-16(12-18)	Drip Zone, Northwest Corner of House	Orange Brown Silt, Little F. M. Gravel, Trace F. Sand
SS-15	S18	OU4-SS-15-17(12-18)	Drip Zone, Northeast Corner of House	Dark Brown/Orange Brown Silt, Little F. Sand, Trace Roots/Wood Debris
SS-15	S18	OU4-SS-15-18(12-18)	Drip Zone, West Front of House	Dark Brown Silt, Some F. Sand, Little F. Gravel
SS-15	S18	OU4-SS-15-19(12-18)	Drip Zone, Southwest Corner of House	Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel/Wood Debris
SS-15	S18	OU4-SS-15-COMP4(6-12)		
SS-15	S18	OU4-SS-15-16(6-12)	Drip Zone, Northwest Corner of House	Brown/Orange Brown Silt, Little F. M. Sand/Gravel, Trace Roots
SS-15	S18	OU4-SS-15-17(6-12)	Drip Zone, Northeast Corner of House	Dark Brown/Black/Brown/Silt/Clay, Little F. Sand, Trace Roods/F. Gravel/Wood Debris
SS-15	S18	OU4-SS-15-18(6-12)	Drip Zone, West Front of House	Dark Brown Silt, Some F. Sand, Little F. Gravel
SS-15	S18	OU4-SS-15-19(6-12)	Drip Zone, Southwest Corner of House	Brown/Orange Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP1(0-1)		
SS-16	S12	OU4-SS-16-01(0-1)	Front Yard, West of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-02(0-1)	Side Yard, Southwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-03(0-1)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-04(0-1)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-05(0-1)	Side Yard, South of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-05(0-1)-DUP	Side Yard, South of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-COMP1(0-1)-DUP		
SS-16	S12	OU4-SS-16-COMP1(1-6)		
SS-16	S12	OU4-SS-16-01(1-6)	Front Yard, West of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-02(1-6)	Side Yard, Southwest of House	Gray Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-03(1-6)	Side Yard, South of House	Gray Brown Silt, Little F. Sand, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-16	S12	OU4-SS-16-04(1-6)	Side Yard, South of House	Gray Brown/Orange Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-05(1-6)	Side Yard, South of House	Orange Brown/Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-COMP1(12-18)		
SS-16	S12	OU4-SS-16-01(12-18)	Front Yard, West of House	Orange Brown/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-02(12-18)	Side Yard, Southwest of House	Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-03(12-18)	Side Yard, South of House	Brown/Orange Brown Silt/F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-04(12-18)	Side Yard, South of House	Gray Brown/Brown Silty/Clay, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-05(12-18)	Side Yard, South of House	Brown Silt/Clay, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-COMP1(6-12)		
SS-16	S12	OU4-SS-16-01(6-12)	Front Yard, West of House	Orange Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-02(6-12)	Side Yard, Southwest of House	Gray Brown/Brown Silt/Brown F. M. Gravel, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-03(6-12)	Side Yard, South of House	Gray Brown/Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-04(6-12)	Side Yard, South of House	Gray Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-05(6-12)	Side Yard, South of House	Brown Silt/Clay, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-COMP2(0-1)		
SS-16	S12	OU4-SS-16-06(0-1)	Side Yard, Northwest of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-07(0-1)	Side Yard, North of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-08(0-1)	Side Yard North of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-09(0-1)	Side Yard, North of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-10(0-1)	Side Yard, Northeast of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP2(1-6)		
SS-16	S12	OU4-SS-16-06(1-6)	Side Yard, Northwest of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-07(1-6)	Side Yard, North of House	Gray/Brown Silt/Orange/Brown Black F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-08(1-6)	Side Yard North of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-09(1-6)	Side Yard, North of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-10(1-6)	Side Yard, Northeast of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-10(1-6)-DUP	Side Yard, Northeast of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP2(12-18)		
SS-16	S12	OU4-SS-16-06(12-18)	Side Yard, Northwest of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-07(12-18)	Side Yard, North of House	Orange/Brown/Black F. Sand, Some Silt, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-16	S12	OU4-SS-16-08(12-18)	Side Yard North of House	Orange Brown/Dark Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-09(12-18)	Side Yard, North of House	Gray/Brown/Dark Brown Silt, Some F. Sand, Trace Roots/Brick/Clay/F. Gravel
SS-16	S12	OU4-SS-16-10(12-18)	Side Yard, Northeast of House	Orange Brown/Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP2(6-12)		
SS-16	S12	OU4-SS-16-06(6-12)	Side Yard, Northwest of House	Brown/Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-07(6-12)	Side Yard, North of House	Gray/Brown Silt/Orange/Brown Black F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-08(6-12)	Side Yard North of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-09(6-12)	Side Yard, North of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-10(6-12)	Side Yard, Northeast of House	Gray/Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP3(0-1)		
SS-16	S12	OU4-SS-16-11(0-1)	Back Yard, East of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-12(0-1)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-13(0-1)	Back Yard, East of House	Gray Brown Silt, Little F. Sand Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-14(0-1)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-15(0-1)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP3(1-6)		
SS-16	S12	OU4-SS-16-11(1-6)	Back Yard, East of House	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-12(1-6)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-13(1-6)	Back Yard, East of House	Gray Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-14(1-6)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-15(1-6)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-15(1-6)-DUP	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP3(12-18)		
SS-16	S12	OU4-SS-16-11(12-18)	Back Yard, East of House	Dark Brown Silt, Little F. Sand
SS-16	S12	OU4-SS-16-12(12-18)	Back Yard, East of House	Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-13(12-18)	Back Yard, East of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-14(12-18)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-15(12-18)	Back Yard, East of House	Dark Brown Silt, Little F.M. Sand, Trace Roots
SS-16	S12	OU4-SS-16-COMP3(6-12)		
SS-16	S12	OU4-SS-16-11(6-12)	Back Yard, East of House	Brown/Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-12(6-12)	Back Yard, East of House	Gray/Brown/Black Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-13(6-12)	Back Yard, East of House	Gray Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-14(6-12)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-16	S12	OU4-SS-16-15(6-12)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-DUP-8	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP4(0-1)		
SS-16	S12	OU4-SS-16-16(0-1)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-17(0-1)	Back Yard, East of House	Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-18(0-1)	Back Yard, East of House	Gray/Brown Silt, Some F. M. Sand, Trace Roots
SS-16	S12	OU4-SS-16-19(0-1)	Back Yard, East of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-20(0-1)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP4(1-6)		
SS-16	S12	OU4-SS-16-16(1-6)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-17(1-6)	Back Yard, East of House	Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-17(1-6) DUP	Back Yard, East of House	Gray Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-18(1-6)	Back Yard, East of House	Gray/Brown Silt, Some F. M. Sand, Trace Roots
SS-16	S12	OU4-SS-16-19(1-6)	Back Yard, East of House	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-20(1-6)	Back Yard, East of House	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP4(12-18)		
SS-16	S12	OU4-SS-16-16(12-18)	Back Yard, East of House	Brown/Black/Orange/Brown Orange Silt, Some F. Sand, Trace Roots/Brick/F. Gravel
SS-16	S12	OU4-SS-16-17(12-18)	Back Yard, East of House	Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-18(12-18)	Back Yard, East of House	Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-19(12-18)	Back Yard, East of House	Dark Brown/Black Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-20(12-18)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-20(12-18)-DUP	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP4(6-12)		
SS-16	S12	OU4-SS-16-16(6-12)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-16(6-12) DUP	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-17(6-12)	Back Yard, East of House	Gray Brown/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-18(6-12)	Back Yard, East of House	Gray/Brown Silt, Some F. M. Sand, Trace Roots
SS-16	S12	OU4-SS-16-19(6-12)	Back Yard, East of House	Gray/Brown/Dark Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-20(6-12)	Back Yard, East of House	Gray/Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-COMP5(0-1)		
SS-16	S12	OU4-SS-16-21(0-1)	Drip Zone, Northeast Corner of House	Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-21(0-1) DUP	Drip Zone, Northeast Corner of House	Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-22(0-1)	Drip Zone, Northwest Corner of House	Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-16	S12	OU4-SS-16-23(0-1)	Drip Zone, Northwest Front of House	Brown F. M. Gravel, Some Silt, Trace Roots/F. Sand
SS-16	S12	OU4-SS-16-24(0-1)	Drip Zone, Southwest Front of House	Brown F. M. Gravel, Some Silt, Trace Roots/F. Sand
SS-16	S12	OU4-SS-16-24(0-1)-DUP	Drip Zone, Southwest Front of House	Brown F. M. Gravel, Some Silt, Trace Roots/F. Sand
SS-16	S12	OU4-SS-16-COMP5(1-6)		
SS-16	S12	OU4-SS-16-21(1-6)	Drip Zone, Northeast Corner of House	Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-22(1-6)	Drip Zone, Northwest Corner of House	Brown/Black Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-23(1-6)	Drip Zone, Northwest Front of House	Brown F. M. Gravel/Orange Brown Silt/Clay, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-24(1-6)	Drip Zone, Southwest Front of House	Brown F. M. Gravel, Some Silt, Trace Roots/F. Sand
SS-16	S12	OU4-SS-16-COMP5(12-18)		
SS-16	S12	OU4-SS-16-21(12-18)	Drip Zone, Northeast Corner of House	Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-22(12-18)	Drip Zone, Northwest Corner of House	Dark Brown/Orange Brown Silt/Clay, Little F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-23(12-18)	Drip Zone, Northwest Front of House	Dark Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-24(12-18)	Drip Zone, Southwest Front of House	Orange Brown/Dark Brown Silt, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-COMP5(12-18)-DUP		
SS-16	S12	OU4-SS-16-COMP5(6-12)		
SS-16	S12	OU4-SS-16-21(6-12)	Drip Zone, Northeast Corner of House	Brown Silt, Little F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-22(6-12)	Drip Zone, Northwest Corner of House	Brown/Black/Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-16	S12	OU4-SS-16-23(6-12)	Drip Zone, Northwest Front of House	Orange Brown/Dark Brown Silt/Clay, Some F. Sand, Trace Roots
SS-16	S12	OU4-SS-16-24(6-12)	Drip Zone, Southwest Front of House	Orange Brown Silt, Some F. Sand, Trace Roots
SS-17	W06	OU4-SS-17-COMP1(0-1)		
SS-17	W06	OU4-SS-17-01(0-1)	Vacant Lot, Front Half	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-02(0-1)	Vacant Lot, Front Half	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-03(0-1)	Vacant Lot, Front Half	Gray/Brown Silt, Some F. M. Gravel, Little F. Sand, Trace Roots
SS-17	W06	OU4-SS-17-04(0-1)	Vacant Lot, Front Half	Brown Silt, Some F. M. Gravel, Little F. M. Sand, Trace Roots
SS-17	W06	OU4-SS-17-05(0-1)	Vacant Lot, Front Half	Gray Brown Silt, Some F. M. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-COMP1(1-6)		
SS-17	W06	OU4-SS-17-01(1-6)	Vacant Lot, Front Half	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-17	W06	OU4-SS-17-02(1-6)	Vacant Lot, Front Half	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-03(1-6)	Vacant Lot, Front Half	Gray/Brown Silt, Some F. M. Gravel, Little F. Sand, Trace Roots
SS-17	W06	OU4-SS-17-04(1-6)	Vacant Lot, Front Half	Brown Silt, Some F. M. Gravel, Little F. M. Sand, Trace Roots
SS-17	W06	OU4-SS-17-05(1-6)	Vacant Lot, Front Half	Gray Brown Silt, Some F. M. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-05(1-6)-DUP	Vacant Lot, Front Half	Gray Brown Silt, Some F. M. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-COMP1(12-18)		
SS-17	W06	OU4-SS-17-01(12-18)	Vacant Lot, Front Half	Orange Brown Silt, Little F. Sand, Trace F. Gravel
SS-17	W06	OU4-SS-17-02(12-18)	Vacant Lot, Front Half	Dark Brown Silt/Brown F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-03(12-18)	Vacant Lot, Front Half	Brown F. M. Sand, Some Silt, Little F. Gravel, Trace Roots
SS-17	W06	OU4-SS-17-04(12-18)	Vacant Lot, Front Half	Dark Brown F. M. Gravel, Some F. M. Sand, Trace Silt
SS-17	W06	OU4-SS-17-05(12-18)	Vacant Lot, Front Half	Gray Brown Silt, Some F. M. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-COMP1(6-12)		
SS-17	W06	OU4-SS-17-01(6-12)	Vacant Lot, Front Half	Gray/Brown/Dark Brown/Orange Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-02(6-12)	Vacant Lot, Front Half	Dark Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-03(6-12)	Vacant Lot, Front Half	Gray/Brown Silt/Tan F. M. Sand, Some F. M. Gravel, Trace Roots
SS-17	W06	OU4-SS-17-04(6-12)	Vacant Lot, Front Half	Brown Silt, Some F. M. Gravel/Sand, Trace Roots
SS-17	W06	OU4-SS-17-05(6-12)	Vacant Lot, Front Half	Gray Brown Silt, Some F. M. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-COMP2(0-1)		
SS-17	W06	OU4-SS-17-06(0-1)	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-07(0-1)	Vacant Lot, Rear Half Near Alley	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-08(0-1)	Vacant Lot, Rear Half Near Alley	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-09(0-1)	Vacant Lot, Rear Half Near Alley	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-10(0-1)	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-10(0-1)-DUP	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-COMP2(1-6)		
SS-17	W06	OU4-SS-17-06(1-6)	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-07(1-6)	Vacant Lot, Rear Half Near Alley	Brown Silt, Little F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-08(1-6)	Vacant Lot, Rear Half Near Alley	Gray/Brown Silt/F.M. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-09(1-6)	Vacant Lot, Rear Half Near Alley	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-10(1-6)	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-COMP2(12-18)		
SS-17	W06	OU4-SS-17-06(12-18)	Vacant Lot, Rear Half Near Alley	Brown Silt/Clay, Little F. Sand, Trace Roots
SS-17	W06	OU4-SS-17-07(12-18)	Vacant Lot, Rear Half Near Alley	Brown/Light Brown F. Sand, Some Silt, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-08(12-18)	Vacant Lot, Rear Half Near Alley	Gray/Brown F. M. Sand, Some Silt, Trace Roots

Appendix C

Composites and Discretes

New Jersey Zinc/Mobil Chemical
DePue, Illinois

Property Location	IDPH Property Identification	Sample Name	Description	Soil Description
SS-17	W06	OU4-SS-17-09(12-18)	Vacant Lot, Rear Half Near Alley	Brown/Orange Brown Silt/Clay, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-10(12-18)	Vacant Lot, Rear Half Near Alley	Brown/Black Silt, Some F. Sand, Trace Black Fines/F. Gravel
SS-17	W06	OU4-SS-17-10(12-18)-DUP	Vacant Lot, Rear Half Near Alley	Brown/Black Silt, Some F. Sand, Trace Black Fines/F. Gravel
SS-17	W06	OU4-SS-17-COMP2(6-12)		
SS-17	W06	OU4-SS-17-06(6-12)	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-07(6-12)	Vacant Lot, Rear Half Near Alley	Brown Silt/F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-08(6-12)	Vacant Lot, Rear Half Near Alley	Gray/Brown F. M Sand, Some Silt, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-09(6-12)	Vacant Lot, Rear Half Near Alley	Gray/Brown Silt, Some F. Sand, Trace Roots/F. Gravel
SS-17	W06	OU4-SS-17-10(6-12)	Vacant Lot, Rear Half Near Alley	Brown Silt, Some F. Sand, Trace Roots/F. Gravel

Notes:
F = Fine
M = Medium
C = Coarse

Appendix D

XRF Data Review
(Electronic Data on CD-ROM)

Sample Run Time Summary and Raw Data

APPENDIX 4
SAMPLE RUN-TIME SUMMARY
DEPUE, ILLINOIS
RAL ASSESSMENT REPORT

XRF analysis was conducted utilizing the Innov-X Environmental Metal Analyzer. The standard operating procedure for determining concentrations of metals in soil using XRF is found in SW-846 Method 6200 (USEPA, 1998). This method recommends sample run-times between 30 and 300 seconds. The sample run-times are user selectable between these ranges with the shorter measurement times (30 seconds) having less precision, and generally are used for initial screening or delineation of hot-spots. Longer measurement times have greater precision and generally are used to meet more stringent requirements for precision and accuracy. The Innov-X Environmental Metal Analyzer User Manual recommended a measurement time of 120 seconds; however, testing was conducted to evaluate the optimal run-times for field conditions.

A range of measurement times were evaluated in the field to determine the optimal run-time for the instrument. This test was conducted evaluating the percent recoveries for 14 analytes in 30 second intervals between 60 and 150 seconds run-times. The results indicated a greater percentage of samples were recovered within the range of 80 to 120% at the 120 second interval. As such, a run-time of 120 seconds was selected for the XRF field analyzer. A summary of the results are provided in the table below and the original results for the tests performed are attached.

	Time (seconds)	**% within 80 to 120% Recovery**
OU4-SS-CLPSTD-1-060205	60	36%
OU4-SS-CLPSTD-2-060205	60	36%
	Average	**36%**
OU4-SS-CLPSTD-1-060605	90	64%
OU4-SS-CLPSTD-2-060605	90	57%
OU4-SS-CLPSTD-3-060605	90	64%
OU4-SS-CLPSTD-4-060605	90	50%
	Average	**59%**
OU4-SS-CLPSTD-5-060605	120	71%
OU4-SS-CLPSTD-6-060605	120	71%
OU4-SS-CLPSTD-7-060605	120	57%
OU4-SS-CLPSTD-8-060605	120	71%
	Average	**68%**
OU4-SS-CLPSTD-9-060605	150	36%
OU4-SS-CLPSTD-10-060605	150	50%
OU4-SS-CLPSTD-11-060605	150	57%
OU4-SS-CLPSTD-12-060605	150	50%
	Average	**48%**
OU4-SS-CLPSTD-13-060605	180	36%
OU4-SS-CLPSTD-14-060605	180	29%
OU4-SS-CLPSTD-15-060605	180	64%
OU4-SS-CLPSTD-16-060605	180	36%
	Average	**41%**

Percent Recovery

Sample Name: OU4-SS-CLPSTD-1-060205 **Nist Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	234.8	208	112.88	Acceptable
Barium	525.44	879	59.78	Not Acceptable
Cadmium	124.44	141	88.26	Acceptable
Chromium	277.98	132	210.59	Not Acceptable
Copper	124.2	98.8	125.71	Not Acceptable
Iron	21257.25	24400	87.12	Acceptable
Lead	198.94	179	111.14	Acceptable
Manganese	497.87	591	84.24	Acceptable
Nickel	113.97	80.1	142.28	Not Acceptable
Selenium	234.51	181	129.56	Not Acceptable
Silver	109.83	147	74.71	Not Acceptable
Zinc	336.48	263	127.94	Not Acceptable

5/14

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD-2-060205 **Nist Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	245.44	208	118.00	Acceptable
Barium	684.01	879	77.82	Not Acceptable
Cadmium	169.26	141	120.04	Not Acceptable
Chromium	230.68	132	174.76	Not Acceptable
Copper	124.86	98.8	126.38	Not Acceptable
Iron	20643.2	24400	84.60	Acceptable
Lead	201.11	179	112.35	Acceptable
Manganese	423.1	591	71.59	Not Acceptable
Nickel	88.4	80.1	110.36	Acceptable
Selenium	214.41	181	118.46	Acceptable
Silver	114.93	147	78.18	Not Acceptable
Zinc	315.88	263	120.11	Not Acceptable

5/14

60

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Sample Name OU4-SS-CLPSTD1-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
~~Arsenic~~	232.93	208	111.985576923077
~~Barium~~	782.1	879	88.9761092150171
~~Cadmium~~	152.03	141	107.822695035461
Chromium	208.76	132	158.151515151515
Cobalt	193.99	131	148.083969465649
~~Copper~~	114.37	98.8	115.759109311741
~~Iron~~	23741.1	24400	97.2995901639344
~~Lead~~	197.99	179	110.608938547486
Manganese	440.19	591	74.4822335025381
Mercury	99.02	11.2	884.107142857143
Nickel	105.24	80.1	131.385767790262
~~Selenium~~	206.17	181	113.906077348066
~~Silver~~	119.46	147	81.265306122449
~~Zinc~~	307.86	263	117.057034220532

Percent Recovery

90SEC

9/14

Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name OU4-SS-CLPSTD2-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
Arsenic	209.74	208	100.836538461538
Barium	632.99	879	72.0125142207053
Cadmium	156.76	141	111.177304964539
Chromium	220.86	132	167.318181818182
Cobalt	189.06	131	144.320610687023
Copper	116.32	98.8	117.732793522267
Iron	22364.97	24400	91.6597131147541
Lead	212.42	179	118.670391061452
Manganese	455.74	591	77.1233671742809
Mercury	84.22	11.2	751.964285714286
Nickel	112.48	80.1	140.424469413233
Selenium	204.55	181	113.011049723757
Silver	138.25	147	94.0476190476191
Zinc	297.44	263	113.095057034221

Percent Recovery

90 see

8/14

Acceptable
Acceptable
Not Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name OU4-SS-CLPSTD3-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
Arsenic	221.72	208	106.596153846154
Barium	749.28	879	85.2423208191126
Cadmium	159.18	141	112.893617021277
Chromium	253.82	132	192.287878787879
Cobalt	157.71	131	120.389312977099
Copper	105.97	98.8	107.257085020243
Iron	22388.5	24400	91.7561475409836
Lead	202.58	179	113.173184357542
Manganese	458.62	591	77.6006768189509
Mercury	79.52	11.2	710
Nickel	105.56	80.1	131.785268414482
Selenium	210.43	181	116.259668508287
Silver	136.11	147	92.5918367346939
Zinc	278.55	263	105.912547528517

Percent Recovery

90 8e

9/14

Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name: OU4-SS-CLPSTD4-060605

NIST Standard: CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
Arsenic	215.3	208	103.509615384615
Barium	711.86	879	80.9852104664391
Cadmium	164.88	141	116.936170212766
Chromium	244.33	132	185.098484848485
Cobalt	175.84	131	134.229007633588
Copper	119.86	98.8	121.315789473684
Iron	22450.15	24400	92.0088114754098
Lead	220.67	179	123.279329608939
Manganese	477.85	591	80.8544839255499
Mercury	89.27	11.2	797.0[illegible]571428571
Nickel	108.47	80.1	135.4[illegible]822721598
Selenium	219.5	181	121.270718232044
Silver	131.98	147	89.7823129251701
Zinc	308.68	263	117.368821292776

Percent Recovery

7/14

90 see

Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Not Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable

Close Form

Sample Name OU4-SS-CLPSTD5-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
Arsenic	220.56	208	106.038461538462
Barium	799.89	879	91
Cadmium	155.09	141	109.992907801418
Chromium	199.37	132	151.037878787879
Cobalt	167.58	131	127.922664122137
Copper	115.7	98.8	117.105263157895
Iron	22348.07	24400	91.5904508196721
Lead	212.59	179	118.765363128492
Manganese	494.08	591	83.6006768189509
Mercury	88.58	11.2	790.692857142857
Nickel	109.4	80.1	136.579275905119
Selenium	206.47	181	114.07182320442
Silver	133.61	147	90.891156462585
Zinc	295.27	263	112.269961977186

Percent Recovery

10/14

120 see

Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name OU4-SS-CLPSTD6-060605

Compare Sample To Standard

NIST Standard CLP D043540

Analyte	Result Value	True Value	Percent Recovery
[redacted]	221.81	208	106.639423076923
[redacted]	765.9	879	87.1331058020478
[redacted]	132.52	141	93.9858156028369
Chromium	236.5	132	179.166666666667
[redacted]	140.3	131	107.099236641221
[redacted]	116.71	98.8	118.127530364372
[redacted]	22583.24	24400	92.554262295082
[redacted]	202.48	179	113.117318435754
Manganese	433.77	591	73.3959390862944
Mercury	81.25	11.2	725.446428571429
Nickel	106.85	80.1	133.395755305868
[redacted]	214.07	181	118.270718232044
[redacted]	146.09	147	99.3809523809524
[redacted]	293.94	263	111.764258555133

Percent Recovery

10/14

120 sec

Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name OU4-SS-CLPSTD7-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
Arsenic	219.88	208	105.711538461538
Barium	737.81	879	83.9374288964733
Cadmium	159.49	141	113.113475177305
Chromium	284.56	132	215.575757575758
Cobalt	171.03	131	130.557251908397
Copper	129.16	98.8	130.728744939271
Iron	22403.96	24400	91.8195081967213
Lead	216.36	179	120.871508379888
Manganese	519.39	591	87.8832487309645
Mercury	83.87	11.2	748.839285714286
Nickel	98.51	80.1	122.988770287141
Selenium	202.31	181	111.773480662983
Silver	129.29	147	87.9523809523809
Zinc	298.12	263	113.3536121673

Percent Recovery

120 sec

8/14

Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Not Acceptable
Acceptable
Not Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name: OU4-SS-CLPSTD8-060605

NIST Standard: CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery
Arsenic	221.76	208	106.615384615385
Barium	693.01	879	78.8407281001138
Cadmium	133.91	141	94.9716312056738
Chromium	277.3	132	210.075757575758
Cobalt	145.52	131	111.083969465649
Copper	117.51	98.8	118.937246963563
Iron	22473.05	24400	92.1026639344262
Lead	214.67	179	119.927374301676
Manganese	473.4	591	80.1015228426396
Mercury	80.78	11.2	721.[illegible]5
Nickel	98.91	80.1	123.4831460674[illegible]16
Selenium	209.51	181	115.75138121547
Silver	145.88	147	99.2380952380952
Zinc	295.23	263	112.254752851711

Percent Recovery

120 sec

10/14

Acceptable
Acceptable
Not Acceptable
Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable
Acceptable
Acceptable
Not Acceptable
Not Acceptable
Acceptable
Acceptable
Acceptable

Close Form

Sample Name OU4-SS-CLPSTD9-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
[redacted]	229.54	208	110.355769230769	Acceptable
Barium	697.29	879	79.3276450511945	Not Acceptable
[redacted]	153.23	141	108.673758865248	Acceptable
Chromium	205.79	132	155.901515151515	Not Acceptable
Cobalt	184.06	131	140.503816793893	Not Acceptable
Copper	118.81	98.8	120.253036437247	Not Acceptable
[redacted]	22587.6	24400	92.572131147541	Acceptable
Lead	217.56	179	121.541899441341	Not Acceptable
Manganese	464.35	591	78.5702199661591	Not Acceptable
Mercury	83.93	11.2	749.375	Not Acceptable
Nickel	104.36	80.1	130.287141073658	Not Acceptable
Selenium	221.89	181	122.591160220994	Not Acceptable
[redacted]	140.21	147	95.3809523809524	Acceptable
[redacted]	313.9	263	119.3536121673	Acceptable

Percent Recovery

Close Form

150 sec

5/14

Sample Name OU4-SS-CLPSTD10-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
[redacted]	231.38	208	111.240384615385	Acceptable
Barium	664.4	879	75.5858930602958	Not Acceptable
Cadmium	175.14	141	124.212765957447	Not Acceptable
Chromium	262	132	198.484848484848	Not Acceptable
Cobalt	259.41	131	198.022900763359	Not Acceptable
[redacted]	117.14	98.8	118.562753036437	Acceptable
[redacted]	22368.84	24400	91.6755737704918	Acceptable
Lead	219.95	179	122.877094972067	Not Acceptable
[redacted]	502.56	591	85.0355329949239	Acceptable
Mercury	89.28	11.2	797.142857142857	Not Acceptable
[redacted]	108.01	80.1	134.843945068664	Not Acceptable
[redacted]	214.75	181	118.646408839779	Acceptable
[redacted]	135.84	147	92.4081632653061	Acceptable
[redacted]	313.98	263	119.384030418251	Acceptable

Percent Recovery

Close Form

15DSEE

7/14

Sample Name OU4-SS-CLPSTD11-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
Arsenic	234.78	208	112.875	Acceptable
Barium	775.24	879	88.1956769055745	Acceptable
Cadmium	130.54	141	92.5815602836879	Acceptable
Chromium	278.1	132	210.681818181818	Not Acceptable
Cobalt	187.41	131	143.06106870229	Not Acceptable
Copper	117.58	98.8	119.008097165992	Acceptable
Iron	22802.43	24400	93.4525819672131	Acceptable
Lead	216.07	179	120.709497206704	Not Acceptable
Manganese	489.6	591	82.8426395939086	Acceptable
Mercury	77.69	11.2	693.660714285714	Not Acceptable
Nickel	98.62	80.1	123.121098626717	Not Acceptable
Selenium	225.34	181	124.497237569061	Not Acceptable
Silver	153.35	147	104.319727891156	Acceptable
Zinc	306.25	263	116.444866920152	Acceptable

Percent Recovery

Close Form

150 8/M

Sample Name OU4-SS-CLPSTD12-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
Arsenic	228.8	208	110	Acceptable
Barium	762.27	879	86.7201365187713	Acceptable
Cadmium	173.69	141	123.184397163121	Not Acceptable
Chromium	312.72	132	236.909090909091	Not Acceptable
Cobalt	255.52	131	195.053435114504	Not Acceptable
Copper	123.49	98.8	124.98987854251	Not Acceptable
Iron	22325.55	24400	91.4981557377049	Acceptable
Lead	217.39	179	121.446927374302	Not Acceptable
Manganese	488.26	591	82.6159052453469	Acceptable
Mercury	87.74	11.2	783.392857142857	Not Acceptable
Nickel	70.67	80.1	88.227215980025	Acceptable
Selenium	222.51	181	122.933701657459	Not Acceptable
Silver	135.02	147	91.8503401360544	Acceptable
Zinc	312.15	263	118.688212927757	Acceptable

Percent Recovery

Close Form

7/14

150

Sample Name OU4-SS-CLPSTD13-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
[redacted]	236.83	208	113.860576923077	Acceptable
Barium	607.51	879	69.1137656427759	Not Acceptable
[redacted]	168.36	141	119.404255319149	Acceptable
Chromium	278.16	132	210.727272727273	Not Acceptable
Cobalt	240.26	131	183.404580152672	Not Acceptable
Copper	120.06	98.8	121.518218623482	Not Acceptable
[redacted]	22463.89	24400	92.0651229508197	Acceptable
[redacted]	206.01	179	115.08938547486	Acceptable
Manganese	458.13	591	77.5177664974619	Not Acceptable
Mercury	81.74	11.2	729.821428571429	Not Acceptable
Nickel	100.9	80.1	125.967540574282	Not Acceptable
Selenium	224.84	181	124.220994475138	Not Acceptable
[redacted]	139.34	147	94.7891156462585	Acceptable
Zinc	316.14	263	120.205323193916	Not Acceptable

Percent Recovery

Close Form

5/14

180

Sample Name OU4-SS-CLPSTD14-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
[redacted]	230.2	208	110.673076923077	Acceptable
[redacted]	784.8	879	89.2832764505119	Acceptable
Cadmium	175.83	141	124.702127659574	Not Acceptable
Chromium	310.55	132	235.265151515152	Not Acceptable
Cobalt	227.27	131	173.488549618321	Not Acceptable
Copper	124.09	98.8	125.597165991903	Not Acceptable
[redacted]	22686.45	24400	92.9772540983607	Acceptable
Lead	219.23	179	122.474860335196	Not Acceptable
Manganese	448.34	591	75.8612521150592	Not Acceptable
Mercury	87.56	11.2	781.785714285714	Not Acceptable
Nickel	98.76	80.1	123.295880149813	Not Acceptable
Selenium	224.07	181	123.795580110497	Not Acceptable
[redacted]	150.06	147	102.081632653061	Acceptable
Zinc	318.48	263	121.095057034221	Not Acceptable

Percent Recovery

Close Form

4/14

180 [redacted]

Sample Name OU4-SS-CLPSTD15-060605

NIST Standard CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
[redacted]	228.35	208	109.783653846154	Acceptable
[redacted]	786.84	879	89.5153583617747	Acceptable
[redacted]	165.17	141	117.141843971631	Acceptable
Chromium	286.45	132	217.007575757576	Not Acceptable
Cobalt	176.14	131	134.458015267176	Not Acceptable
[redacted]	107.84	98.8	109.14979757085	Acceptable
[redacted]	22584.2	24400	92.5581967213115	Acceptable
Lead	223.12	179	124.648044692737	Not Acceptable
[redacted]	477.54	591	80.8020304568528	Acceptable
Mercury	81.97	11.2	731.875	Not Acceptable
[redacted]	91.85	80.1	114.669163545568	Acceptable
Selenium	219.72	181	121.39226519337	Not Acceptable
[redacted]	134.76	147	91.6734693877551	Acceptable
[redacted]	311.47	263	118.429657794677	Acceptable

Percent Recovery

Close Form

9/14

180 Sec

Sample Name: OU4-SS-CLPSTD16-060605

NIST Standard: CLP D043540

Compare Sample To Standard

Analyte	Result Value	True Value	Percent Recovery	Acceptable
Arsenic	235.37	208	113.158653846154	Acceptable
Barium	891.86	879	101.463026166098	Acceptable
Cadmium	162.65	141	115.354609929078	Acceptable
Chromium	208.29	132	157.795454545455	Not Acceptable
Cobalt	210.23	131	160.480916030534	Not Acceptable
Copper	125.45	98.8	126.973684210526	Not Acceptable
[illegible]	22638	24400	92.7786885245902	Acceptable
Lead	216.68	179	121.050279329609	Not Acceptable
Manganese	446.53	591	75.5549915397631	Not Acceptable
Mercury	78.51	11.2	700.982142857143	Not Acceptable
Nickel	109.91	80.1	137.215980024969	Not Acceptable
Selenium	228.88	181	126.453038674033	Not Acceptable
Silver	136.92	147	93.1428571428571	Acceptable
Zinc	326.27	263	124.057034220532	Not Acceptable

Percent Recovery

Close Form

5/14

~~120 sec~~

180 sec

APPENDIX 4
METHOD DETECTION LIMIT STUDY SUMMARY
DEPUE, ILLINOIS
RAL ASSESSMENT REPORT

BBL performed the following method detection limit (MDL) study by analyzing four commercially available soil standards (NIST LOW2709, NIST MID 2711, NIST HIGH 2710, and CLP STD). Each individual analyte's MDL was determined by selecting the sample results of each analyte from the analyzed standard that yielded the lowest detectable result. The MDL was calculated by determining the standard deviation (STD) of the seven sample results that resulted in the lowest STD and multiplying them by 3. These results are provided below. The results used to calculate the MDL are provided in Appendix 4.

Method Detection Limit Study

Analytes	**Standard Deviation (STD)**	**MDL (STD*3) (mg/Kg)**	**Standard**
Arsenic	1.2	3.5	NIST LOW STD
Barium	168.6	505.7	CLP STD
Cadmium	7.5	22.4	NIST MID STD
Chromium	29.7	89.1	CLP STD
Cobalt	36.1	108.2	CLP STD
Copper	4.4	13.1	NIST LOW STD
Iron	283.0	849.1	NIST LOW STD
Lead	1.5	4.6	NIST LOW STD
Manganese	59.0	177.1	NIST LOW STD
Mercury	7.3	21.9	NIST HIGH STD
Nickel	8.7	26.1	NIST LOW STD
Selenium	7.9	23.7	CLP STD
Silver	11.5	34.5	CLP STD
Zinc	2.9	8.8	NIST LOW STD

MDL Summary Calculation Sheet
Method Detection Limit Study
DePue, IL

Analytes	Standard Deviation (STD)	MDL (STD*3) (mg/Kg)	Standard
Arsenic	1.2	3.5	NIST LOW STD
Barium	168.6	505.7	CLP STD
Cadmium	7.5	22.4	NIST MID STD
Chromium	29.7	89.1	CLP STD
Cobalt	36.1	108 2	CLP STD
Copper	4.4	13.1	NIST LOW STD
Iron	283.0	849 1	NIST LOW STD
Lead	1.5	4.6	NIST LOW STD
Manganese	59.0	177 1	NIST LOW STD
Mercury	7.3	21.9	NIST HIGH STD
Nickel	8.7	26.1	NIST LOW STD
Selenium	7.9	23.7	CLP STD
Silver	11.5	34.5	CLP STD
Zinc	2.9	8.8	NIST LOW STD

Analytes	1	2	3	4	5	6	7
Arsenic	17.65	14.06	16.49	16.29	16.85	16.77	17.38
Barium	648.07	525.44	568.68	684.01	1018.57	562.45	587.10
Cadmium	80.57	70.93	58.18	60.49	66.69	63 52	68.10
Chromium	277.98	208.39	230.68	182.18	212.75	228.12	238.72
Cobalt	211.56	192.44	289.71	223.89	241.09	258.45	191.07
Copper	31.92	28.83	25.05	23.80	20.55	24 29	31.99
Iron	31477.48	32053.84	31585.64	31485.04	31333.07	31868.37	31991.89
Lead	17.68	17.34	18.96	15.55	19.85	16 24	16.50
Manganese	346.14	404.12	412.93	496.87	449.16	325.86	435.04
Mercury	64.55	76.44	62.51	70.91	67.56	74.48	83.38
Nickel	40.66	49.80	53.57	43.54	54.41	65 93	59.03
Selenium	217.70	234.51	214.55	214.41	210.27	217.95	222.67
Silver	126.29	109.83	126.30	114.93	144.20	113.88	123.65
Zinc	97.63	94.96	99.63	94.72	101.37	102.35	98.50

MDL Summary Calculation Sheet
Method Detection Limit Study
DePue, IL

Sample ID:		OU4-SS-CLPSTD-1	OU4-SS-CLPSTD-1-060205	OU4-SS-CLPSTD-2	OU4-SS-CLPSTD-2-060205	OU4-SS-CLPSTD-3	OU4-SS-CLPSTD-4	OU4-SS-CLPSTD-5	OU4-SS-CLPSTD-6	OU4-SS-CLPSTD-7	OU4-SS-CLPSTD-8	OU4-SS-CLPSTD-9
Date Collected:	**Units**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**	**6/2/2005**
Metals - XRF												
Barium	mg/kg	648.07	525.44	568.68	684.01	1018.57	562.45	587.1	--	--	--	--
Cobalt	mg/kg	211.56	--	192.44	--	289.71	223.89	--	241.09	258.45	--	191.07
Chromium	mg/kg	--	277.98	208.39	230.68	182.18	212.75	--	228.12	238.72	--	--
Selenium	mg/kg	217.7	234.51	214.55	214.41	210.27	217.95	222.67	--	--	--	--
Silver	mg/kg	126.29	109.83	126.3	114.93	144.2	113.88	123.65	125.2	129.9	117.6	110.8

MDL Summary Calculation Sheet
Method Detection Limit Study
DePue, IL

Sample ID: / Date Collected:	Units	OU4-SS-LOW2709-1 6/2/2005	OU4-SS-LOW2709-2 6/2/2005	OU4-SS-LOW2709-3 6/2/2005	OU4-SS-LOW2709-4 6/2/2005	OU4-SS-LOW2709-5 6/2/2005	OU4-SS-LOW2709-6 6/2/2005	OU4-SS-LOW2709-7 6/2/2005	OU4-SS-LOW2709-8 6/2/2005	OU4-SS-LOW2709-9 6/2/2005	OU4-SS-LOW2709-10 6/2/2005
Metals - XRF											
Arsenic	mg/kg	--	17.65	14.06	16.49	16.29	--	16.85	16.77	--	17.38
Copper	mg/kg	31.92	28.83	--	--	25.05	23.8	20.55	24.29		31.99
Iron	mg/kg	31477.48	32053.84	31585.64	31485.04	31333.07	31868.37	31991.89	--	--	--
Lead	mg/kg	17.68	17.34	18.96	15.55	19.85	16.24	16.5	--	--	--
Manganese	mg/kg	346.14	404.12	412.93	496.87	449.16	325.86	435.04	--	--	--
Nickel	mg/kg	40.66	49.8	53.57	43.54	54.41	65.93	59.03	--	--	--
Zinc	mg/kg	97.63	94.96	99.63	94.72	101.37	102.35	98.5	--	--	--

MDL Summary Calculation Sheet
Method Detection Limit Study
DePue, IL

Sample ID: / Date Collected:	Units	OU4-SS-QCBAG2711-1 6/2/2005	OU4-SS-QCBAG2711-2 6/2/2005	OU4-SS-QCBAG2711-3 6/2/2005	OU4-SS-QCBAG2711-4 6/2/2005	OU4-SS-QCBAG2711-5 6/2/2005	OU4-SS-QCBAG2711-6 6/2/2005	OU4-SS-QCBAG2711-7 6/2/2005
Metals - XRF								
Cadmium	mg/kg	80.57	70.93	58.18	60.49	66.69	63.52	68.1

MDL Summary Calculation Sheet
Method Detection Limit Study
DePue, IL

Sample ID: / Date Collected:	Units	OU4-SS-HIGH2710-1-060605 6/6/2005	OU4-SS-HIGH2710-2-060605 6/6/2005	OU4-SS-HIGH2710-3-060605 6/6/2005	OU4-SS-HIGH2710-4-060605 6/6/2005	OU4-SS-HIGH2710-5-060605 6/6/2005	OU4-SS-HIGH2710-6-060605 6/6/2005	OU4-SS-HIGH2710-7-060605 6/6/2005
Metals - XRF								
Mercury	mg/kg	64.55	76.44	62.51	70.91	67.56	74.48	83.38

Appendix D

New Jersey Zinc/Mobil Chemical Site
DePue, Illinois
Revised RAL Assessment Report

Relative Standard Deviation for XRF Soils Data

Constituent	Range	Average
Composites		
Arsenic	2.53 - 27.99	19.14
Barium	3.70 - 24.21	10.71
Cadmium	8.58 - 23.98	14.87
Chromium*	0.95 - 13.76	4.23
Cobalt*	0.50 - 15.22	4.96
Copper	3.53 - 25.65	9.65
Iron	0.73 - 6.81	2.45
Lead	2.05 - 11.07	5.89
Manganese	3.62 - 27.82	10.16
Mercury**	2.10 - 11.96	4.98
Nickel*	1.10 - 12.95	5.77
Selenium*	1.17 - 4.73	2.65
Silver*	0.28 - 9.84	1.94
Zinc	1.57 - 10.11	4.34
Discretes		
Arsenic	12.66 - 64.68	35.33

Notes:
1.) Relative standard deviation is calculated using the following formula:
RSD = (SD/Mean Concentration) x 100
where:
SD = standard deviation of the concentration for the analyte
Mean Concentration = mean concentration for the analyte
* Values are biased low as calculations are based upon the full detection limits.
** Values are biased low as calculations are based upon the full detection limits, except for one composite sample (OU4-SS-11-COMP3(12-18)) where concentrations were detected at levels

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID: Date Collected:	Units	OU4-SS-CLPSTD1-060705 06/07/05	OU4-SS-CLPSTD2 060705 06/07/05	OU4-SS-CLPSTD3-060705 06/07/05	OU4-SS-CLPSTD4-060705 06/07/05	OU4-SS-CLPSTD5-060705 06/07/05	OU4-SS-CLPSTD6-060705 06/07/05	OU4-SS-CLPSTD7-060705 06/07/05	OU4-SS-CLPSTD8-060705 06/07/05	OU4-SS-CLPSTD9-060705 06/07/05	OU4-SS-CLPSTD10-060705 06/07/05		STD	Mean	RSD
Metals - XRF (USEPA SW-846 6200)															
Arsenic	mg/kg	240	240	238	234	232	248	246	239	230	232		6.0	238	2.5
Barium	mg/kg	794	793	850	592	787	721	606	788	840	865		100.0	735	13.6
Cadmium	mg/kg	167	179	168	146	117	181	158	114	173	138		24.5	154	15.9
Chromium	mg/kg	179	199	232	237	275	240	246	213	224	184		31.6	230	13.8
Cobalt	mg/kg	171	127	178	142	159	180	143	221	162	119	U	23.2	152	15.2
Copper	mg/kg	112	121	125	114	121	130	132	123	125	127		7.5	122	6.2
Iron	mg/kg	21400	21600	21800	21400	21700	21700	21700	24500	19900	21500		157.4	21614	0.7
Lead	mg/kg	235	221	230	223	241	225	219	215	227	221		8.0	228	3.5
Manganese	mg/kg	466	392	436	436	472	485	462	495	457	431		31.3	450	6.9
Mercury	mg/kg	104	102	92	102	93	102	90	81	91	84		8.2	94	8.7
Nickel	mg/kg	98.6	118	93.3	92.1	113	104	117	86.1	110	98.2		11.0	105	10.4
Selenium	mg/kg	221	224	226	224	226	222	219	226	220	219		2.6	223	1.2
Silver	mg/kg	121	147	129	116	147	146	128	91.6	137	130		13.1	133	9.8
Zinc	mg/kg	339	344	338	354	349	350	368	320	325	295		10.3	349	2.9

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-03-COMP1(0-1) 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-1 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-2 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-3 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-4 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-5 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-6 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-7 0 - 1 6/2/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8.6	24.03	26 58	33.33	31	27 33	30.28	30.5	26 02	3.111977	28.63375	10.86821
Barium	mg/kg	11000	2632 07	2457.43	2446.61	2624 39	2726.19	2529.04	2619.82	2556.29	95.11224	2573 98	3 695143
Cadmium	mg/kg	78	101.14	89 62	91 8	80.61	105.32	90.1	87.88	98.2	7.982363	93.08375	8 575463
Chromium	mg/kg	780	125.98	120.81	118.45	123.4	125.03	122 21	122 87	122.9	2.348878	122.7063	1 914228
Cobalt	mg/kg	9400	129.23	121.91	122 58	121.98	122.54	123.5	122 21	122.79	2.432199	123 3425	1 971907
Copper	mg/kg	6200	74.97	82.49	87.52	77.24	79.78	78.86	76.45	73 81	4.441345	78.89	5 629794
Iron	mg/kg	46000	26346.35	24656 87	25052.14	24949.69	24782.14	25118.77	25116.26	24961 36	519.7934	25122.95	2 068998
Lead	mg/kg	240	581.66	487.01	479 99	466.65	478.6	477 62	470 66	493.24	37 21351	491 9288	7 564816
Manganese	mg/kg	3600	832.42	786.08	792 94	703.7	807.33	774.3	722.46	779.09	42 50698	774.79	5.486258
Mercury	mg/kg	15 6	11.62	10 91	11.12	11.12	11 51	11.4	11.14	11 31	0.236035	11.26625	2 095062
Nickel	mg/kg	3200	25.49	25.12	24 8	25.04	25.75	25.23	25.32	25.1	0.291814	25.23125	1.156557
Selenium	mg/kg	780	3.2	3.02	3.16	3.11	3.17	3.24	3.2	3.14	0.067612	3.155	2.143022
Silver	mg/kg	780	25.61	25 06	25.16	25.13	25 22	25.08	25.23	25	0.188372	25.18625	0.747915
Zinc	mg/kg	46000	6501 83	5669	5746.53	5697 66	5738.21	5777.01	5786.82	5709.94	274.9672	5828.375	4.717734

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-04-COMP1(1-6) 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-1 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-2 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-3 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-4 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-5 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-6 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-7 1 - 6 6/3/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8 6	12 9	12.82	21.54	20.15	12.03	21 56	21 6	12 08	4.712591	16.835	27.99282
Barium	mg/kg	11000	541 08	590 61	579.79	612.22	442.45	653.9	719 54	672.95	85.72096	601.5675	14.2496
Cadmium	mg/kg	78	59.78	50.87	36.57	37 09	37.12	36 96	63.66	46.49	11.04907	46.0675	23.98452
Chromium	mg/kg	780	114.3	112	112.77	111.36	111 9	111.67	114 06	112.03	1.106144	112.5113	0.983141
Cobalt	mg/kg	9400	120.44	120.17	118 6	119.7	122.16	120.53	121 26	121.66	1.134422	120 565	0.940922
Copper	mg/kg	6200	42.76	43.09	45.02	46 89	37.81	40.1	41.78	48.16	3.431249	43 20125	7.942476
Iron	mg/kg	46000	23149.18	22892 24	22877.21	22818.6	23646.6	23298 07	23326.62	23466 69	302.6637	23184.4	1.305463
Lead	mg/kg	240	337 39	337.46	331.36	321.63	287.21	277.85	278.2	290.04	26.7634	307.6425	8.699512
Manganese	mg/kg	3600	816 92	867 61	797.02	827.53	749.02	695.32	666.17	706.77	72.13429	765.795	9.41953
Mercury	mg/kg	15.6	9.99	10.17	10.17	10 25	10.19	10.46	9.42	10.4	0 322199	10.13125	3.180254
Nickel	mg/kg	3200	25.35	25	24.63	25 06	24.85	24.5	25.77	24.78	0.409939	24.9925	1.640248
Selenium	mg/kg	780	2.96	2.98	2 87	3.17	2 99	2.74	2.98	2.84	0.127553	2.94125	4.336677
Silver	mg/kg	780	26.01	25.79	25.67	25.9	26.01	25 87	25.79	25 98	0.122212	25.8775	0.47227
Zinc	mg/kg	46000	3027.41	3047.74	3008 26	3075.15	2656 63	2656.53	2689.96	2632.62	204.9389	2849.288	7.192636

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-05-COMP4(0-1) 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-1 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-2 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-3 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-4 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-5 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-6 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-7 0 - 1 6/6/05	SD	Mean	RSD
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value													
Arsenic	mg/kg	8 6	14.42	15 27	25.37	16.75	16 58	15.67	15 85	21 85	3.824952	17.72	21.58551
Barium	mg/kg	11000	1438 96	1359 2	1426.73	1282.75	1418.57	1544.74	1587 53	1518	100 2236	1447 06	6 926018
Cadmium	mg/kg	78	34.57	46 33	34.79	35.15	41.7	34.81	35 06	35 26	4.384862	37.20875	11.78449
Chromium	mg/kg	780	100.48	101.7	102.79	105.08	106.72	104 39	106.34	107.45	2.511451	104 3688	2.406324
Cobalt	mg/kg	9400	84.89	84.18	89.86	92.55	91.45	91.12	91 03	87 24	3.188578	89.04	3 581062
Copper	mg/kg	6200	21.73	14 95	30.57	31.47	29.74	22.6	23 81	17 31	6.161133	24.0225	25.64734
Iron	mg/kg	46000	12004.22	12076.76	13759.15	14030.53	13805.1	13941 3	14075.74	12561.78	904.7766	13281.82	6 812142
Lead	mg/kg	240	486.53	561.84	603 61	640.48	632.79	581 87	591.1	716.82	66.6387	601.88	11.07176
Manganese	mg/kg	3600	362.74	367.77	579 62	625.06	592.13	379 86	338.07	350.34	125 0154	449.4488	27.81528
Mercury	mg/kg	15.6	9.18	8.96	9.21	9.7	9.56	9 32	9.77	9.77	0.308171	9.43375	3 266691
Nickel	mg/kg	3200	20.39	20 04	20.96	21.32	20 83	20.35	21 29	21 27	0.493644	20.80625	2 372573
Selenium	mg/kg	780	2 85	2.77	3.09	3 09	2.92	2 92	2.93	3.19	0.140509	2 97	4.730952
Silver	mg/kg	780	24.03	24 06	24.54	24.81	24 65	24.33	24 53	24 67	0.286693	24.4525	1.172448
Zinc	mg/kg	46000	2234.11	2153.77	2817.66	2823 34	2783.43	2498.27	2515 67	2631.79	258.4995	2557.255	10.10848

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-07-COMP1(1-6) 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-1 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-2 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-3 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-4 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-5 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-6 1 - 6 6/7/05			
Metals - XRF (USEPA SW-846 6200)												
Non-Detects Adjusted to Full Detection Limit Value										**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8 6	24.77	24 52	30.37	25.65	16.56	18.96	15 31	4.964737	23.47167	21.15204
Barium	mg/kg	11000	3782.47	3591 9	3726 03	3600.87	3488 69	3951.52	3555.31	165.127	3690 247	4.474688
Cadmium	mg/kg	78	56.63	82 6	52.04	56.31	74.24	73.58	58.71	12.46939	65 9	18 92169
Chromium	mg/kg	780	135.77	134.9	132.34	132 92	134.26	134.45	168.04	1.270176	134.1067	0.947138
Cobalt	mg/kg	9400	127.29	125.37	123.78	124.45	125.07	124 55	126.04	1.211276	125.085	0.968362
Copper	mg/kg	6200	77.25	77 93	64.13	72.06	77.91	71.56	76.4	5.417847	73.47333	7.373896
Iron	mg/kg	46000	24316.55	23676 09	23774.81	23718.42	23907.81	23571.34	23714.3	264.1353	23827 5	1.108531
Lead	mg/kg	240	472.08	451.56	456.04	462.77	474.67	455 53	462.4	9.476644	462.1083	2.050741
Manganese	mg/kg	3600	709.35	572.18	587.35	603.79	534.4	519 63	580.09	67.48774	587.7833	11.48174
Mercury	mg/kg	15.6	12.39	11 55	11.72	11 8	11.61	11.4	11 64	0.344949	11.745	2.936988
Nickel	mg/kg	3200	27.28	26 04	33.68	26.69	26.39	26.11	26 59	2.965019	27.69833	10.70468
Selenium	mg/kg	780	3 22	3.3	3 23	3.24	3.35	3.34	3 2	0.057619	3.28	1.75669
Silver	mg/kg	780	27.13	27	27.02	26.84	27.04	26.79	26 94	0.128996	26.97	0.478295
Zinc	mg/kg	46000	4839.15	4665.48	4676 37	4593.58	4675.46	4620.11	4670.62	85.57149	4678 358	1.829092

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-11-COMP3(12-18) 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-1 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-2 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-3 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-4 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-5 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-6 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-7 12 - 18 06/09/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8.6	20.84	31.78	31 85	17.8	22.16	32.02	37.24	34.61	7.18571	28.5375	25.17988
Barium	mg/kg	11000	393.6	633.09	678.07	655.43	438.52	523.73	702 36	838 53	147.1777	607 9163	24.2102
Cadmium	mg/kg	78	36.17	46 21	35.77	35.87	35.52	36.44	51.14	35.43	6.082451	39.06875	15.56858
Chromium	mg/kg	780	117 02	121.75	122.62	122.27	117.65	120.54	121 99	120.74	2.126699	120 5725	1.763834
Cobalt	mg/kg	9400	151 67	158.3	210.12	158.09	157.15	157.68	159 37	157 55	18 88261	163.7413	11.53198
Copper	mg/kg	6200	48 9	71.8	65 52	70.96	65.74	60.83	67.45	67.76	7.296412	64 87	11.24774
Iron	mg/kg	46000	37996.14	43452.48	43074.4	43103.95	42697.81	43091.84	43545.86	42921.62	1834.042	42485.51	4.316865
Lead	mg/kg	240	547 25	614.36	627.4	647.42	633.36	631.64	642.41	628 29	31 61715	621 5163	5.087099
Manganese	mg/kg	3600	480.41	559.95	592.11	560.11	536.41	584.48	575 21	544.41	35 29613	554.1363	6.369576
Mercury	mg/kg	15.6	17.83	21 06	20.1	25 22	20.46	22.66	25	19.98	2.575613	21.53875	11.95804
Nickel	mg/kg	3200	27.75	29 24	29 58	40.18	28.97	29.19	29.27	32.13	3.98674	30.78875	12.94869
Selenium	mg/kg	780	3.25	3.17	3.15	3.14	3.13	3 29	3.22	3.19	0.056758	3.1925	1.777843
Silver	mg/kg	780	25.36	25 05	24 95	25.04	24.87	24.96	25.11	24.93	0.152403	25.03375	0.608792
Zinc	mg/kg	46000	3236.71	3357.76	3405.21	3348 62	3363 33	3359.42	3403.28	3377.47	52.73826	3356.475	1 57124

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-08-COMP3(0-1) 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-1 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-2 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-3 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-4 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-5 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-6 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-7 0 - 1 6/8/05	SD	Mean	RSD
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value													
Arsenic	mg/kg	8 6	23.71	30 89	29.73	38.98	26 88	19.44	23.96	18.11	6.76187	26.4625	25.5526
Barium	mg/kg	11000	4195.44	3632 56	3709.14	3613.46	3333.24	3790.49	3701 26	3274.33	284.394	3656.24	7.77832
Cadmium	mg/kg	78	130.35	137.64	157.88	115 82	125.35	140.22	140.81	144 59	12.7952	136.583	9.36811
Chromium	mg/kg	780	138.68	139.75	136.77	138.14	136.04	138.09	139.87	169 32	11 0842	142.083	7.80122
Cobalt	mg/kg	9400	131.67	133.41	133.09	133 98	133.07	132.86	132.99	133 37	0.65931	133.055	0.49551
Copper	mg/kg	6200	123.26	120.94	128.92	130.48	131.68	130.37	134.81	127 27	4.52986	128.466	3.52611
Iron	mg/kg	46000	25421 39	26011.78	25571.91	26016.81	25823.43	25722.68	25854.61	25846.1	205.881	25783 6	0.7985
Lead	mg/kg	240	703.74	651.66	636 3	634 56	658.84	651.79	656.85	652.45	21 3288	655.774	3.25246
Manganese	mg/kg	3600	610.58	603.79	583.63	624.5	589.64	585.54	639.16	634.5	22 0342	608.918	3.61858
Mercury	mg/kg	15.6	14 27	13 58	13.44	13.33	14 01	13 27	13.25	13.79	0.37435	13 6175	2.74901
Nickel	mg/kg	3200	28.1	28.17	27.43	27.97	28 05	27.76	28.41	27.7	0.3075	27 9488	1.10022
Selenium	mg/kg	780	3.67	3.59	3.41	3.57	3.43	3.53	3.44	3.46	0.09239	3.5125	2.63029
Silver	mg/kg	780	27 04	26 96	26.87	26.96	26 96	26 99	27.1	26.89	0.07453	26 9713	0.27635
Zinc	mg/kg	46000	10616 25	10013.07	10030.79	10118.22	10000.8	10028.91	10137.67	10089.09	203.095	10129.4	2.00502

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-14-COMP4(0-1) 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-1 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-2 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-3 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-4 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-5 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-6 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-7 0 - 1 6/14/05			
Metals - XRF (USEPA SW-846 6200)													
											SD	**Mean**	**RSD**
Arsenic	mg/kg	8.6	30.81	48 37	48.17	56.41	48 05	51.79	47.18	35 84	8.379708	45.8275	18.28533
Barium	mg/kg	11000	2300.39	NA	NA	NA	NA	NA	NA	NA			
Cadmium	mg/kg	78	63.74	NA	NA	NA	NA	NA	NA	NA			
Chromium	mg/kg	780	118.97 U	NA	NA	NA	NA	NA	NA	NA			
Cobalt	mg/kg	9400	107.55 U	NA	NA	NA	NA	NA	NA	NA			
Copper	mg/kg	6200	51.04	NA	NA	NA	NA	NA	NA	NA			
Iron	mg/kg	46000	18566.04	NA	NA	NA	NA	NA	NA	NA			
Lead	mg/kg	240	2185.31	NA	NA	NA	NA	NA	NA	NA			
Manganese	mg/kg	3600	585.17	NA	NA	NA	NA	NA	NA	NA			
Mercury	mg/kg	15.6	11.43 U	NA	NA	NA	NA	NA	NA	NA			
Nickel	mg/kg	3200	23.91 U	NA	NA	NA	NA	NA	NA	NA			
Selenium	mg/kg	780	4 33 U	NA	NA	NA	NA	NA	NA	NA			
Silver	mg/kg	780	25.5 U	NA	NA	NA	NA	NA	NA	NA			
Zinc	mg/kg	46000	4285.37	NA	NA	NA	NA	NA	NA	NA			

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-07-18(6-12) 6 - 12 6/21/05	OU4-SS-07-18(6-12)-1 6 - 12 6/22/05	OU4-SS-07-18(6-12)-2 6 - 12 6/22/05	OU4-SS-07-18(6-12)-3 6 - 12 6/22/05	OU4-SS-07-18(6-12)-4 6 - 12 6/22/05	OU4-SS-07-18(6-12)-5 6 - 12 6/22/05	OU4-SS-07-18(6-12)-6 6 - 12 6/22/05	OU4-SS-07-18(6-12)-7 6 - 12 6/22/05
Metals - XRF (USEPA SW-846 6200)										
Arsenic	mg/kg	8 6	28 81	39.87	40.73	42.35	39.44	44 28	41.12	34.7

The data are not adjusted for percent solids.

	Arsenic
STD	4.925205579
MEAN	38.9125
RSD	12 65712966

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-01-16(0-1) 0 - 1 6/20/05	OU4-SS-01-16(0-1)-1 0 - 1 6/21/05	OU4-SS-01-16(0-1)-2 0 - 1 6/21/05	OU4-SS-01-16(0-1)-3 0 - 1 6/21/05	OU4-SS-01-16(0-1)-4 0 - 1 6/21/05	OU4-SS-01-16(0-1)-5 0 - 1 6/21/05	OU4-SS-01-16(0-1)-6 0 - 1 6/21/05	OU4-SS-01-16(0-1)-7 0 - 1 6/21/05
Metals - XRF (USEPA SW-846 6200)										
Arsenic	mg/kg	8 6	24.56	92.65	92.17	87.7	81 96	81.73	94 36	85.69

The data are not adjusted for percent solids.

	Arsenic
STD	22 94823725
MEAN	80.1025
RSD	28 64859056

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-13-07(1-6) 1 - 6 6/22/05	OU4-SS-13-07(1-6)-1 1 - 6 6/23/05	OU4-SS-13-07(1-6)-2 1 - 6 6/23/05	OU4-SS-13-07(1-6)-3 1 - 6 6/23/05	OU4-SS-13-07(1-6)-4 1 - 6 6/23/05	OU4-SS-13-07(1-6)-5 1 - 6 6/23/05	OU4-SS-13-07(1-6)-6 1 - 6 6/23/05	OU4-SS-13-07(1-6)-7 1 - 6 6/23/05
Metals - XRF (USEPA SW-846 6200)										
Arsenic	mg/kg	8 6	27.09	7.91	7.15	11.43	8 84	7.18	7 23	7 65

	Arsenic
STD	6.830480008
MEAN	10.56
RSD	64.68257584

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF060705

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF060705 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Sample Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-01-COMP2(6-12)	Soil	6/7/2005				X	
OU4-SS-06-COMP1(0-1)	Soil	6/7/2005				X	
OU4-SS-06-COMP1(1-6)	Soil	6/7/2005				X	
OU4-SS-06-COMP1(12-18)	Soil	6/7/2005				X	
OU4-SS-06-COMP1(6-12)	Soil	6/7/2005				X	
OU4-SS-06-COMP3(0-1)	Soil	6/7/2005				X	
OU4-SS-06-COMP3(1-6)	Soil	6/7/2005				X	
OU4-SS-06-COMP3(12-18)	Soil	6/7/2005				X	
OU4-SS-06-COMP3(6-12)	Soil	6/7/2005				X	
OU4-SS-06-COMP4(0-1)	Soil	6/7/2005				X	
OU4-SS-06-COMP4(1-6)	Soil	6/7/2005				X	
OU4-SS-06-COMP4(12-18)	Soil	6/7/2005				X	
OU4-SS-06-COMP4(6-12)	Soil	6/7/2005				X	
OU4-SS-06-COMP5(0-1)	Soil	6/7/2005				X	
OU4-SS-06-COMP5(1-6)	Soil	6/7/2005				X	
OU4-SS-06-COMP5(12-18)	Soil	6/7/2005				X	
OU4-SS-06-COMP5(6-12)	Soil	6/7/2005				X	
OU4-SS-07-COMP1(0-1)	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-1	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-2	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-3	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-4	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-5	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-6	Soil	6/7/2005				X	
OU4-SS-07-COMP1(1-6)-7	Soil	6/7/2005				X	
OU4-SS-07-COMP1(12-18)	Soil	6/7/2005				X	
OU4-SS-07-COMP1(6-12)	Soil	6/7/2005				X	
OU4-SS-07-COMP2(0-1)	Soil	6/7/2005				X	
OU4-SS-07-COMP2(1-6)	Soil	6/7/2005				X	
OU4-SS-07-COMP2(12-18)	Soil	6/7/2005				X	
OU4-SS-07-COMP2(6-12)	Soil	6/7/2005				X	
OU4-SS-07-COMP3(0-1)	Soil	6/7/2005				X	
OU4-SS-07-COMP3(1-6)	Soil	6/7/2005				X	
OU4-SS-07-COMP3(12-18)	Soil	6/7/2005				X	
OU4-SS-07-COMP3(6-12)	Soil	6/7/2005				X	
OU4-SS-07-COMP4(0-1)	Soil	6/7/2005				X	
OU4-SS-07-COMP4(1-6)	Soil	6/7/2005				X	
OU4-SS-07-COMP4(12-18)	Soil	6/7/2005				X	
OU4-SS-07-COMP4(6-12)	Soil	6/7/2005				X	
OU4-SS-07-COMP5(0-1)	Soil	6/7/2005				X	
OU4-SS-07-COMP5(1-6)	Soil	6/7/2005				X	
OU4-SS-07-COMP5(12-18)	Soil	6/7/2005				X	
OU4-SS-07-COMP5(6-12)	Soil	6/7/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The following analytes were detected in the associated method blanks or equipment blanks: barium, iron, lead, manganese, zinc, and silver. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U).

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120 % were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than a 80 % were qualified as estimated.
- Nondetect sample results associated with a calibration standard exhibiting a recovery less than 80% but greater than 50 %were qualified as estimated.
- Non-detected sample results a associated with a calibration standard exhibiting a recovery less than 50 %were qualified as rejected.

4. Precision Measurement

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

Since this SDG was the first SDG, there were no field samples to run as the precision check. As such, the CLP standard was used as the precision check.

5. Field Duplicate

Field duplicate was not analyzed with this SDG.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/07/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-060705	QC		QC
2	733	OU4-SS-EBLANK1-060705	QC		QC
3	733	OU4-SS-MBLANK1-060705	QC		QC
4	733	OU4-SS-MBLANK2-060705	QC		QC
5	733	OU4-SS-CLPSTD1-060705	QC		QC
6	733	OU4-SS-CLPSTD2-060705	QC		QC
7	733	OU4-SS-CLPSTD3-060705	QC		QC
8	733	OU4-SS-CLPSTD4-060705	QC		QC
9	733	OU4-SS-CLPSTD5-060705	QC		QC
10	733	OU4-SS-CLPSTD6-060705	QC		QC
11	733	OU4-SS-CLPSTD7-060705	QC		QC
12	733	OU4-SS-01-COMP1(0-1)~~A~~	FS	01	~~QC~~ W11
13	733	OU4-SS-01-COMP1(1-6)~~A~~	FS		~~QC~~
14	733	OU4-SS-01-COMP1(6-12)~~A~~	FS		~~QC~~
15	733	OU4-SS-01-COMP1(12-18)~~A~~	FS		~~QC~~
16	733	OU4-SS-01-COMP2(0-1)~~A~~	FS		~~QC~~
17	733	OU4-SS-01-COMP2(1-6)~~A~~	FS		~~QC~~
18	733	OU4-SS-01-COMP2(6-12)~~A~~	FS		~~QC~~
19	733	OU4-SS-01-COMP2(12-18)~~A~~	FS		QC
20	733	OU4-SS-EBLANK2-060705	QC		QC
21	733	OU4-SS-EBLANK3-060705	QC		QC
22	733	OU4-SS-MBLANK3-060705	QC		QC
23	733	OU4-SS-CLPSTD8-060705	QC		QC
24	733	OU4-SS-01-COMP3(0-1)~~A~~	FS	01	W11
25	733	OU4-SS-01-COMP3(1-6)~~A~~	FS	01	W11
26	733	OU4-SS-01-COMP3(6-12)~~A~~	FS	01	W11
27	733	OU4-SS-01-COMP3(12-18)~~A~~	FS	01	W11
28	733	OU4-SS-01-COMP4(0-1~~A~~	FS	01	W11
29	733	OU4-SS-01-COMP4(1-6)~~A~~	FS	01	W11
30	733	OU4-SS-01-COMP4(6-12)~~A~~	FS	01	W11
31	733	OU4-SS-01-COMP4(12-18)~~A~~	FS	01	W11
32	733	OU4-SS-01-COMP5(0-1)~~A~~	FS	01	W11
33	733	OU4-SS-01-COMP5(1-6)~~A~~	FS	01	W11
34	733	OU4-SS-01-COMP5(6-12)~~A~~	FS	01	W11
35	733	OU4-SS-01-COMP5(12-18)~~A~~	FS	01	W11
36	733	OU4-SS-02-COMP1(0-1)	FS	02	S11
37	733	OU4-SS-02-COMP1(1-6)	FS	02	S11

Electronic Log for 06/07/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-02-COMP1(6-12)	FS	02	S11
39	733	OU4-SS-02-COMP1(12-18)	FS	02	S11
40	733	OU4-SS-EBLANK4-060705	QC		QC
41	733	OU4-SS-MBLANK4-060705	QC		QC
42	733	OU4-SS-CLPSTD9-060705	QC		QC
43	733	OU4-SS-02-COMP2(0-1)	FS	02	S11
44	733	OU4-SS-02-COMP2(1-6)	FS	02	S11
45	733	OU4-SS-02-COMP2(6-12)	FS	02	S11
46	733	OU4-SS-02-COMP2(12-18)	FS	02	S11
47	733	OU4-SS-02-COMP3(0-1)	FS	02	S11
48	733	OU4-SS-02-COMP3(1-6)	FS	02	S11
49	733	OU4-SS-02-COMP3(6-12)	FS	02	S11
50	733	OU4-SS-02-COMP3(12-18)	FS	02	S11
51	733	OU4-SS-02-COMP4(0-1)	FS	02	S11
52	733	OU4-SS-02-COMP4(1-6)	FS	02	S11
53	733	OU4-SS-02-COMP4(6-12)	FS	02	S11
54	733	OU4-SS-02-COMP4(12-18)	FS	02	S11
55	733	OU4-SS-02-COMP5(0-1)	FS	02	S11
56	733	OU4-SS-02-COMP5(1-6)	FS	02	S11
57	733	OU4-SS-02-COMP5(6-12)	FS	02	S11
58	733	OU4-SS-02-COMP5(12-18)	FS	02	S11
59	733	OU4-SS-EBLANK5-060705	QC		
60	733	OU4-SS-MBLANK5-060705	QC		QC
61	733	OU4-SS-CLPSTD10-060705	QC		QC
62	733	OU4-SS-03-COMP1(0-1)	FS	03	S16
63	733	OU4-SS-03-COMP1(1-6)	FS	03	S16
64	733	OU4-SS-03-COMP1(6-12)	FS	03	S16
65	733	OU4-SS-03-COMP1(12-18)	FS	03	S16
66	733	OU4-SS-03-COMP2(0-1)	FS	03	S16
67	733	OU4-SS-STD2-060705	FS	03	S16
68	733	OU4-SS-03-COMP2(1-6)	FS	03	S16
69	733	OU4-SS-03-COMP2(6-12)	FS	03	S16
70	733	OU4-SS-03-COMP2(12-18)	FS	03	S16
71	733	OU4-SS-03-COMP3(0-1)	FS	03	S16
72	733	OU4-SS-03-COMP3(1-6)	FS	03	S16
73	733	OU4-SS-03-COMP3(6-12)	FS	03	S16
74	733	OU4-SS-03-COMP3(12-18)	FS	03	S16

Electronic Log for 06/07/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-03-COMP4(0-1)	FS	03	S16
76	733	OU4-SS-03-COMP4(1-6)	FS	03	S16
77	733	OU4-SS-03-COMP4(6-12)	FS	03	S16
78	733	OU4-SS-03-COMP4(12-18)	FS	03	S16
79	733	OU4-SS-EBLANK6-060705	QC		QC
80	733	OU4-SS-MBLANK6-060705	QC		QC
81	733	OU4-SS-CLPSTD11-060705	QC		QC
82	733	OU4-SS-STD3-060705	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-COMP1(0-1) 0 - 1 05/31/05	OU4-SS-01-COMP1(1-6) 1 - 6 05/31/05	OU4-SS-01-COMP1(6-12) 6 - 12 06/07/05	OU4-SS-01-COMP1(12-18) 12 - 18 06/07/05	OU4-SS-01-COMP2(0-1) 0 - 1 06/01/05
Metals - XRF						
Arsenic	mg/kg	26.31	14.96	7.46 U	7.12	17.14
Barium	mg/kg	2224.86	1646.26	259.92 U	278.36	1882.51
Cadmium	mg/kg	59.03	60.14	35.32 U	47.88	37.37
Chromium	mg/kg	113.59 J	108.87 U	97.14 U	97.76 U	107.81 U
Cobalt	mg/kg	91.39 U	97.02 U	90.87 U	97.78 U	98.16 U
Copper	mg/kg	28 J	43.9 J	13.88 J	11.65 U J	24.53 J
Iron	mg/kg	14753.73 U	15222.59 U	14549.24 J	16860.36 ~~J~~ U	16080.79 ~~J~~ U
Lead	mg/kg	585.62 J	411.62 J	103.01 J	32.41 J	573.21 J
Manganese	mg/kg	423.98 J	542.42 J	428.39 J	309.9 J	438.17 J
Mercury	mg/kg	9.81 U J	9.73 U J	8.39 U J	7.35 U J	9.49 U J
Nickel	mg/kg	21.17 U	21.58 U	20.03 U	20.93 U	21.46 U
Selenium	mg/kg	3.07 U	2.93 U	2.46 U	2.47 U	2.98 U
Silver	mg/kg	24.35 U J	25.32 U J	24.63 U J	24.75 U J	24.74 U J
Zinc	mg/kg	2675.23 J	2280.42 J	658.77 J	116.06 J	2659.55 J

Table
Summary of Soil Sample Analytical Results

Sample ID: / Sample Depth(Inches): / Date Collected:	Units	OU4-SS-01-COMP2(1-6) 1 - 6 06/01/05	OU4-SS-01-COMP2(6-12) 6 - 12 06/07/05	OU4-SS-01-COMP2(12-18) 12 - 18 06/07/05	OU4-SS-01-COMP3(0-1) 0 - 1 06/01/05	OU4-SS-01-COMP3(1-6) 1 - 6 06/01/05
Metals - XRF						
Arsenic	mg/kg	25.18	6.6	4.49 U	11.28	17.9
Barium	mg/kg	1477.81	296.84	244.52 U	1247.29	1324.37
Cadmium	mg/kg	36.06 U	34.51 U	34.43 U	81.71 J	57.73 J
Chromium	mg/kg	110.43 U	92.44 U	89.97 U	107.06 U	107.03 U
Cobalt	mg/kg	105.2 U	85.04 U	85.67 U	112.5 J (Q)	100.94 U
Copper	mg/kg	14.71 J	11.52 U	11.29 U	21.01 J	33.6 J
Iron	mg/kg	18202.38 U	12588.67 U	13150.78 U	17427.64 U	17042.11 U
Lead	mg/kg	371.99 J	28.32 U	20.74 U	266.9	217.57
Manganese	mg/kg	457.74 J	479.36 J	354.4 U	455.63 UJ	458.8 UJ
Mercury	mg/kg	9.76 U J	7.35 U J	7.29 U J	9.51 U J	8.79 U J
Nickel	mg/kg	22.91 U	19.43 U	19.76 U	22.6 U	22.71 U
Selenium	mg/kg	2.97 U	2.27 U	2.21 U	2.79 U	2.86 U
Silver	mg/kg	25.19 U J	24.05 U J	24.02 U J	24.84 U J	25.17 U J
Zinc	mg/kg	2094.31 J	379.91 J	81.94 J	2437.92 J	2098.74 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-COMP3(6-12) 6 - 12 06/01/05	OU4-SS-01-COMP3(12-18) 12 - 18 06/01/05	OU4-SS-01-COMP4(0-1) 0 - 1 06/01/05	OU4-SS-01-COMP4(1-6) 1 - 6 06/01/05	OU4-SS-01-COMP4(6-12) 6 - 12 06/07/05
Metals - XRF						
Arsenic	mg/kg	31.71	13.19	21.04	24.82	7.94
Barium	mg/kg	833.78 J	539.72 J	1926.79	1751.96	266.31 U
Cadmium	mg/kg	35.82 U	40.44 J	39.61 J	37.57 J	35.24 U
Chromium	mg/kg	106.98 U	98.97 U	113.69 U	112.18 U	112.19 J
Cobalt	mg/kg	116.18 U	91.76 U	103.52 U	99.27 U	99.06 U
Copper	mg/kg	27.37 J	12.46 U	33.98 J	16.98 J	12.6 U
Iron	mg/kg	22621.04	14931.77 J	18016.88 J	16130.24 J	16609.77 J
Lead	mg/kg	184.14	73.32	513.01	347.74	85.78
Manganese	mg/kg	551.33 UJ	393.87 UJ	490.77 UJ	526.3 UJ	418.07 UJ
Mercury	mg/kg	8.97 U J	7.82 U J	9.72 U J	9.96 U J	8.31 U J
Nickel	mg/kg	24.09 U	20.36 U	22.49 U	22.29 U	21.59 U
Selenium	mg/kg	2.7 U	2.53 U	3.13 U	2.92 U	2.33 U
Silver	mg/kg	25.24 U J	24.55 U J	25.06 U J	25.33 U J	24.72 U J
Zinc	mg/kg	1104.48 J	591.31 J	2788.71 J	2695.09 J	679.5 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-COMP4(12-18) 12 - 18 06/01/05	OU4-SS-01-COMP5(0-1) 0 - 1 06/01/05	OU4-SS-01-COMP5(1-6) 1 - 6 06/01/05	OU4-SS-01-COMP5(6-12) 6 - 12 06/01/05	OU4-SS-01-COMP5(12-18) 12 - 18 06/01/05
Metals - XRF						
Arsenic	mg/kg	17.57	15.71 U	15.49	8.82	4.51 U
Barium	mg/kg	272.67 U	1017.24 U	1380.73	471.21 U	242.79 U
Cadmium	mg/kg	37.13 U	35.5 U	35.48 U	35.49 J	34.86 U
Chromium	mg/kg	110.58 U	145.79 J	131.03 J	95.9 U	90.17 U
Cobalt	mg/kg	111.25 U	101.08 U	97.35 U	87.41 U	83.68 U
Copper	mg/kg	12.61 U	30.05 J	25.28 J	11.98 U	11.67 U
Iron	mg/kg	19958.86 U	16853.65 U	15541.16 U	13578.7 U	12387.91 U
Lead	mg/kg	74.73	568.69	514.51	118.66	20.94 ~~U~~ U
Manganese	mg/kg	373.1 UJ	486.28 UJ	367.33 UJ	403.2 UJ	342.83 UJ
Mercury	mg/kg	8.1 U J	9.87 U J	9.45 U J	7.92 U J	7.4 U J
Nickel	mg/kg	23.2 U	22.5 U	21.84 U	19.37 U	21.12 JQ
Selenium	mg/kg	2.54 U	3.1 U	2.97 U	2.58 U	2.38 U
Silver	mg/kg	26.1 U J	24.84 U J	25.01 U J	24.1 U J	24.17 U J
Zinc	mg/kg	347.11 J	1745.22 J	2200.93 J	900.67 J	98.8 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-COMP1(0-1) 0 - 1 06/01/05	OU4-SS-02-COMP1(1-6) 1 - 6 06/01/05	OU4-SS-02-COMP1(6-12) 6 - 12 06/01/05	OU4-SS-02-COMP1(12-18) 12 - 18 06/07/05	OU4-SS-02-COMP2(0-1) 0 - 1 06/07/05
Metals - XRF						
Arsenic	mg/kg	16.22	44.46	20.13	7.36	6.2 U
Barium	mg/kg	716.93 U	2415.59	544.91 U	274.24 U	303.95
Cadmium	mg/kg	35.27 U	61.09 J	38.2 U	35.51 U	34.03 U
Chromium	mg/kg	107.09 U	126.67 U	133.94 U	105.91 U	97.41 U
Cobalt	mg/kg	114.17 U	131.31 U	237.66 J	110.03 U	~~92.2~~ U R
Copper	mg/kg	31.42 J	64.34 J	30.24 J	13.79 J	11.99 U
Iron	mg/kg	22450.99	26996.09	52781.45	20581.64	14829.38
Lead	mg/kg	270.52	688.36	136.54	25.6 U	64.48 J
Manganese	mg/kg	563.18 U J	691.55 UJ	654.06 UJ	442.18 UJ	369.13 JJ
Mercury	mg/kg	8.63 U J	11.98 U J	10.02 U J	7.73 U J	7.65 U J
Nickel	mg/kg	23.65 U	26.9 U	32.49 U	22.76 U	19.93 U
Selenium	mg/kg	2.66 U	3.4 U	2.88 U	2.37 U	2.39 U
Silver	mg/kg	24.69 U J	26.38 U J	26.97 U J	24.91 U J	23.83 U
Zinc	mg/kg	1710.33 J	4579.57 J	1535.86 J	133.88 J	397.85

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-COMP2(1-6) 1 - 6 06/01/05	OU4-SS-02-COMP2(6-12) 6 - 12 06/01/05	OU4-SS-02-COMP2(12-18) 12 - 18 06/01/05	OU4-SS-02-COMP3(0-1) 0 - 1 06/01/05	OU4-SS-02-COMP3(1-6) 1 - 6 06/01/05
Metals - XRF						
Arsenic	mg/kg	14.44	10.94 U	9	9.47	13.12
Barium	mg/kg	589.34	578.6	572.18	541.92	1114.1
Cadmium	mg/kg	35.46 U	35.79 U	35.4 U	36.59 J	38.25 J
Chromium	mg/kg	99.73 U	105.92 U	101.95 U	97.59 U	109.25 U
Cobalt	mg/kg	128.24 J	~~113.66 U~~ R	~~111.66 U~~ R	~~97.82 U~~ R	~~112.81 U~~ R
Copper	mg/kg	23.96 J	18.12 J	20.84 J	26.94 J	38.09 J
Iron	mg/kg	19636.79	21774.44	21636.76	17039.19	21379.44
Lead	mg/kg	137.04 J	252.28 J	79.65 J	103.82 J	199.29 J
Manganese	mg/kg	412.36 UJ	471.56 UJ	470.58 UJ	405.64 UJ	485.14 J
Mercury	mg/kg	8.31 U J	9.01 U J	8.48 U J	7.99 U J	9.18 U J
Nickel	mg/kg	21.91 U	23.9 U	22.9 U	20.49 U	23.41 U
Selenium	mg/kg	2.56 U	2.81 U	2.52 U	2.5 U	2.65 U
Silver	mg/kg	24.71 U	24.97 U	24.82 U	23.47 U	24.99 U
Zinc	mg/kg	882.02 J	1097.32 J	660.2 J	911.2 J	1583.87 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-COMP3(6-12) 6 - 12 06/01/05	OU4-SS-02-COMP3(12-18) 12 - 18 06/07/05	OU4-SS-02-COMP4(0-1) 0 - 1 06/07/05	OU4-SS-02-COMP4(1-6) 1 - 6 06/01/05	OU4-SS-02-COMP4(6-12) 6 - 12 06/01/05
Metals - XRF						
Arsenic	mg/kg	10.69	5.92	8.4 U	19.46	16.1
Barium	mg/kg	526.89	268.7 U	598.36	2319.26	535.14
Cadmium	mg/kg	35.03 U	35.23 U	33.94 U	52.98 J	34.73 U
Chromium	mg/kg	101.98 U	97.69 U	101.99 U	120.91 U	104.47 U
Cobalt	mg/kg	~~103.99 U~~ R	~~104.96 U~~ R	~~106.24 U~~ R	~~123 U~~ R	~~111.19 U~~ R
Copper	mg/kg	15.62 J	15.32 J	46.24 J	79.12 J	24.48 J
Iron	mg/kg	18804.75 J	18546.05 J	20192.28	24736.25	21507.74
Lead	mg/kg	78.24 J	47.75 J	146.8 J	363.18 J	148.19 J
Manganese	mg/kg	497.02 J	495.33 J	455.49 UJ	475.8 J	493.21 J
Mercury	mg/kg	8.45 U J	7.74 U J	7.9 U J	9.77 U J	8.34 U J
Nickel	mg/kg	22.64 U	21.97 U	22.78 U	24.44 U	22.48 U
Selenium	mg/kg	2.39 U	2.42 U	2.48 U	3.1 U	2.51 U
Silver	mg/kg	24.44 U	24.6 U	23.86 U	25.2 U	24.27 U
Zinc	mg/kg	1018.35 J	573.37 J	1175.88 J	2707.84 J	1275.42 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-COMP4(12-18) 12 - 18 06/07/05	OU4-SS-02-COMP5(0-1) 0 - 1 06/01/05	OU4-SS-02-COMP5(1-6) 1 - 6 06/01/05	OU4-SS-02-COMP5(6-12) 6 - 12 06/01/05	OU4-SS-02-COMP5(12-18) 12 - 18 06/07/05
Metals - XRF						
Arsenic	mg/kg	7.1	16.69	27.51	9.26	7.31
Barium	mg/kg	262.32 U	522.98	992.46	263.25 U	303.28 U
Cadmium	mg/kg	34.72 U	34.51 U	53.15 J	35.53 U	45.42 U
Chromium	mg/kg	96.03 U	101.06 U	107.76 U	99.62 U	135.78 U
Cobalt	mg/kg	~~104.34 U~~ R	~~111.21 U~~ R	~~112.57 U~~ R	~~105.52 U~~ R	~~127.29 U~~ R
Copper	mg/kg	12.21 U	28.16 J	26.02 J	12.8 U	16.34 U
Iron	mg/kg	19016.66 J	21671.73	21273.51	18102.52 U	16546.84 U
Lead	mg/kg	27.68 J	284.86 J	419.52 J	64.14 J	16.26 UJ
Manganese	mg/kg	501.25 J	376.41 UJ	464.92 UJ	488.51 J	373.24 UJ
Mercury	mg/kg	7.83 U J	8.78 U J	9.61 U J	8.26 U J	9.2 U J
Nickel	mg/kg	22.1 U	22.26 U	22.75 U	22 U	27.26 U
Selenium	mg/kg	2.4 U	2.8 U	3.16 U	2.44 U	3.06 U
Silver	mg/kg	24.29 U	24.06 U	24.9 U	24.85 U	32.05 U
Zinc	mg/kg	343.78 J	1469.21 J	2151.12 J	819.58 J	85.11 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-COMP1(0-1) 0 - 1 06/02/05	OU4-SS-03-COMP1(1-6) 1 - 6 06/02/05	OU4-SS-03-COMP1(6-12) 6 - 12 06/02/05	OU4-SS-03-COMP1(12-18) 12 - 18 06/07/05	OU4-SS-03-COMP2(0-1) 0 - 1 06/02/05
Metals - XRF						
Arsenic	mg/kg	24.03	18.35	21.01	5.14 U	18.06
Barium	mg/kg	2632.07	922.01	546.78	259.62 U	875.87
Cadmium	mg/kg	101.14	79.03	35.55 U	34.7 U	35.57 U
Chromium	mg/kg	125.98 U	120.51 U	105.21 U	95.23 U	107.59 U
Cobalt	mg/kg	~~129.23 U~~ R	~~128.67 U~~ R	~~112.02 U~~ R	~~100.81 U~~ R	~~109.07 U~~ R
Copper	mg/kg	74.97 J	45.57 J	27.93 J	12.48 U J	40.47 J
Iron	mg/kg	26346.35	27295.74	21645.3 U	17643.4 U	20562.96 U
Lead	mg/kg	581.66 J	268.15 J	215.27 J	33.89 J	272.85 J
Manganese	mg/kg	832.42 J	952.83 J	896.97 J	817.39 J	526.93 U J
Mercury	mg/kg	11.62 U J	10.44 U J	9.15 U J	7.68 U J	9.5 U J
Nickel	mg/kg	25.49 U	25.08 U	23.31 U	20.72 U	22.75 U
Selenium	mg/kg	3.2 U	2.76 U	2.59 U	2.43 U	2.94 U
Silver	mg/kg	25.61 U	25.52 U	24.86 U	24.34 U	24.81 U
Zinc	mg/kg	6501.83 J	4647.16 J	2125.09 J	526.76 J	2712.61 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-COMP2(1-6) 1 - 6 06/02/05	OU4-SS-03-COMP2(6-12) 6 - 12 06/02/05	OU4-SS-03-COMP2(12-18) 12 - 18 06/02/05	OU4-SS-03-COMP3(0-1) 0 - 1 06/02/05	OU4-SS-03-COMP3(1-6) 1 - 6 06/02/05
Metals - XRF						
Arsenic	mg/kg	28.28	23.98	12.35	13.86	27.31
Barium	mg/kg	1511.81	783.28	340.98	717.09	1046.59
Cadmium	mg/kg	48.23	36.24 U	34.77 U	50.92	72.87
Chromium	mg/kg	116.1 U	114.11 U	105.01 U	109.19 U	123.41 U
Cobalt	mg/kg	~~129.11 U~~ R	~~130.76 U~~ R	~~111.27 U~~ R	~~121.24 U~~ R	~~141.36 U~~ R
Copper	mg/kg	50.36 J	41.54 J	23.21 J	55.66 J	49.73 J
Iron	mg/kg	25933.7	27788.15	21351.1 U	24720.35	31481.26
Lead	mg/kg	399.83 ~~J~~ J	360.62 J	257.42 J	367.48 J	404.99 J
Manganese	mg/kg	659.72 J	660.51 J	702.04 J	546.38 U,J	653.75 J
Mercury	mg/kg	11.16 U J	10.44 U J	9.13 U J	10 U J	11.18 U J
Nickel	mg/kg	26.65 U	25.62 U	23.18 U	24.72 U	27.48 U
Selenium	mg/kg	2.93 U	2.92 U	2.74 U	2.99 U	3.09 U
Silver	mg/kg	26.05 U	25.43 U	24.47 U	24.8 U	25.92 U
Zinc	mg/kg	4867.67 J	3974.21 J	2060.75 J	3516.47 J	4272.13 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-COMP3(6-12) 6 - 12 06/02/05	OU4-SS-03-COMP3(12-18) 12 - 18 06/02/05	OU4-SS-03-COMP4(0-1) 0 - 1 06/02/05	OU4-SS-03-COMP4(1-6) 1 - 6 06/07/05	OU4-SS-03-COMP4(6-12) 6 - 12 06/07/05
Metals - XRF						
Arsenic	mg/kg	17.79	27.99	39.73	8.45	7.25 U
Barium	mg/kg	767.12	303.97 U	605.78	437.09	352.14
Cadmium	mg/kg	36.59 U	35.91 U	34.87 U	35.08 U	33.88 U
Chromium	mg/kg	120.37 U	116.55 U	108.88 U	97.53 U	92.63 U
Cobalt	mg/kg	~~153.62 U~~ R	~~144.86 U~~ R	~~115.26 U~~ R	~~96.22 U~~ R	~~93.1 U~~ R
Copper	mg/kg	33.23 J	25.88 J	42.74 J	16.51 J	12.16 U J
Iron	mg/kg	37716.22	34992.7	22452.39 U	16337.96 U	16488.45 U
Lead	mg/kg	305.53 J	237.99 J	684.73 J	112.07 J	106.25 J
Manganese	mg/kg	803.7 J	577.26 UJ	663.3 J	638.26 UJ	643.43 UJ
Mercury	mg/kg	10.46 U J	10.06 U J	9.92 U J	7.86 U J	7.58 U J
Nickel	mg/kg	28.02 U	27.1 U	24.13 U	20.31 U	20.63 U
Selenium	mg/kg	3.05 U	2.66 U	3.33 U	2.41 U	2.4 U
Silver	mg/kg	26.09 U	25.24 U	24.43 U	24.31 U	23.54 U
Zinc	mg/kg	3148.53 J	1856.77 J	2904.5 J	955.02 J	869.14 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-COMP4(12-18) 12 - 18 06/02/05
Metals - XRF		
Arsenic	mg/kg	17.16
Barium	mg/kg	291.84
Cadmium	mg/kg	35.66 U
Chromium	mg/kg	108.14 U
Cobalt	mg/kg	~~118.58 U~~ K
Copper	mg/kg	32.32 J
Iron	mg/kg	23882.59
Lead	mg/kg	230.77 J
Manganese	mg/kg	689.58 J
Mercury	mg/kg	10.31 J a
Nickel	mg/kg	24.27 U
Selenium	mg/kg	2.57 U
Silver	mg/kg	24.91 U
Zinc	mg/kg	1769.16 J

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD8-060705 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	238.89	208	114.85	Acceptable
Barium	787.96	879	89.64	Acceptable
Cadmium	113.75	141	80.67	Acceptable
Chromium	212.96	132	161.33	Not Acceptable
Cobalt	221.3	131	168.93	Not Acceptable
Copper	122.79	98.8	124.28	Not Acceptable
Iron	24532.14	24400	100.54	Acceptable
Lead	214.52	179	119.84	Acceptable
Manganese	494.95	591	83.75	Acceptable
Mercury	80.83	11.2	721.70	Not Acceptable
Nickel	86.08	80.1	107.47	Acceptable
Selenium	226.17	181	124.96	Not Acceptable
Silver	91.55	147	62.28	Not Acceptable
Zinc	319.83	263	121.61	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD9-060705 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	229.51	208	110.34	Acceptable
Barium	840.38	879	95.61	Acceptable
Cadmium	173.29	141	122.90	Not Acceptable
Chromium	224.15	132	169.81	Not Acceptable
Cobalt	161.73	131	123.46	Not Acceptable
Copper	124.53	98.8	126.04	Not Acceptable
Iron	19874.21	24400	81.45	Acceptable
Lead	226.9	179	126.76	Not Acceptable
Manganese	457.35	591	77.39	Not Acceptable
Mercury	91.44	11.2	816.43	Not Acceptable
Nickel	109.51	80.1	136.72	Not Acceptable
Selenium	220.25	181	121.69	Not Acceptable
Silver	136.9	147	93.13	Acceptable
Zinc	324.96	263	123.56	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD10-060705 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	231.86	208	111.47	Acceptable
Barium	865.34	879	98.45	Acceptable
Cadmium	137.81	141	97.74	Acceptable
Chromium	184.25	132	139.58	Not Acceptable
Cobalt	0	131	0.00	Not Acceptable
Copper	126.69	98.8	128.23	Not Acceptable
Iron	21534.5	24400	88.26	Acceptable
Lead	220.58	179	123.23	Not Acceptable
Manganese	430.95	591	72.92	Not Acceptable
Mercury	83.71	11.2	747.41	Not Acceptable
Nickel	98.18	80.1	122.57	Not Acceptable
Selenium	219.4	181	121.22	Not Acceptable
Silver	130.28	147	88.63	Acceptable
Zinc	295.34	263	112.30	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD11-060705 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	246.89	208	118.70	Acceptable
Barium	809.19	879	92.06	Acceptable
Cadmium	163.63	141	116.05	Acceptable
Chromium	232.1	132	175.83	Not Acceptable
Cobalt	207.06	131	158.06	Not Acceptable
Copper	125.9	98.8	127.43	Not Acceptable
Iron	23662.43	24400	96.98	Acceptable
Lead	218.86	179	122.27	Not Acceptable
Manganese	568.77	591	96.24	Acceptable
Mercury	92.01	11.2	821.52	Not Acceptable
Nickel	111.9	80.1	139.70	Not Acceptable
Selenium	225.39	181	124.52	Not Acceptable
Silver	158.28	147	107.67	Acceptable
Zinc	335.1	263	127.41	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS							
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-060705 06/07/05	OU4-SS-MBLANK2-060705 06/07/05	OU4-SS-MBLANK3-060705 06/07/05	OU4-SS-MBLANK4-060705 06/07/05	OU4-SS-MBLANK5-060705 06/07/05	OU4-SS-MBLANK6-060705 06/07/05
Metals - XRF							
Barium	mg/kg	190.54 U	200.2 U	**229.07**	199.99 U	188.05 U	193 U
Iron	mg/kg	**3965.18**	**3948.88**	**3966.15**	**3868.28**	**3785.25**	**4481.61**
Lead	mg/kg	**5.13 U**	**6.5**	**8.89**	**5.71**	5.24 U	**5.44**
Manganese	mg/kg	**82.67**	**74.98**	**131.51**	**94.95**	**66.69**	**130.18**
Zinc	mg/kg	**7.5**	**7.54**	**7.91**	**10.64**	**7.28**	**7.41**

Note:
Only detected analytes on specified day of analysis are summarized.

EQUIPMENT BLANKS							
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1-060705 06/07/05	OU4-SS-EBLANK2-060705 06/07/05	OU4-SS-EBLANK3-060705 06/07/05	OU4-SS-EBLANK4-060705 06/07/05	OU4-SS-EBLANK5-060705 06/07/05	OU4-SS-EBLANK6-060705 06/07/05
Metals - XRF							
Silver	mg/kg	22.39 U	28.25	**27.64**	22.09 U	22.15 U	**28.84**

Note:
Only detected analytes on specified day of analysis are summarized.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID: Date Collected:	Units	OU4-SS-CLPSTD1-060705 06/07/05	OU4-SS-CLPSTD2 060705 06/07/05	OU4-SS-CLPSTD3-060705 06/07/05	OU4-SS-CLPSTD4-060705 06/07/05	OU4-SS-CLPSTD5-060705 06/07/05	OU4-SS-CLPSTD6-060705 06/07/05	OU4-SS-CLPSTD7-060705 06/07/05	OU4-SS-CLPSTD8-060705 06/07/05	OU4-SS-CLPSTD9-060705 06/07/05	OU4-SS-CLPSTD10-060705 06/07/05		STD	Mean	RSD
Metals - XRF (USEPA SW-846 6200)															
Arsenic	mg/kg	240	240	238	234	232	248	246	239	230	232		6.0	238	2.5
Barium	mg/kg	794	793	850	592	787	721	606	788	840	865		100.0	735	13.6
Cadmium	mg/kg	167	179	168	146	117	181	158	114	173	138		24.5	154	15.9
Chromium	mg/kg	179	199	232	237	275	240	246	213	224	184		31.6	230	13.8
Cobalt	mg/kg	171	127	178	142	159	180	143	221	162	119	U	23.2	152	15.2
Copper	mg/kg	112	121	125	114	121	130	132	123	125	127		7.5	122	6.2
Iron	mg/kg	21400	21600	21800	21400	21700	21700	21700	24500	19900	21500		157.4	21614	0.7
Lead	mg/kg	235	221	230	223	241	225	219	215	227	221		8.0	228	3.5
Manganese	mg/kg	466	392	436	436	472	485	462	495	457	431		31.3	450	6.9
Mercury	mg/kg	104	102	92	102	93	102	90	81	91	84		8.2	94	8.7
Nickel	mg/kg	98.6	118	93.3	92.1	113	104	117	86.1	110	98.2		11.0	105	10.4
Selenium	mg/kg	221	224	226	224	226	222	219	226	220	219		2.6	223	1.2
Silver	mg/kg	121	147	129	116	147	146	128	91.6	137	130		13.1	133	9.8
Zinc	mg/kg	339	344	338	354	349	350	368	320	325	295		10.3	349	2.9

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF060805

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF060805 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Sample Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-03-COMP1(0-1)-1	Soil	6/8/2005				X	
OU4-SS-03-COMP1(0-1)-2	Soil	6/8/2005				X	
OU4-SS-03-COMP1(0-1)-3	Soil	6/8/2005				X	
OU4-SS-03-COMP1(0-1)-4	Soil	6/8/2005				X	
OU4-SS-03-COMP1(0-1)-5	Soil	6/8/2005				X	
OU4-SS-03-COMP1(0-1)-6	Soil	6/8/2005				X	
OU4-SS-03-COMP1(0-1)-7	Soil	6/8/2005				X	
OU4-SS-04-COMP1(0-1)	Soil	6/8/2005				X	
OU4-SS-04-COMP1(1-6)	Soil	6/8/2005				X	
OU4-SS-04-COMP1(6-12)	Soil	6/8/2005				X	
OU4-SS-04-COMP1(12-18)	Soil	6/8/2005				X	
OU4-SS-04-COMP2(0-1)	Soil	6/8/2005				X	
OU4-SS-04-COMP2(1-6)	Soil	6/8/2005				X	
OU4-SS-04-COMP2(6-12)	Soil	6/8/2005				X	
OU4-SS-04-COMP2(12-18)	Soil	6/8/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks; instrument calibration, method detection limit study, precision measurement, and field duplicate relative %difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The following analytes were detected in the associated method blanks: iron, lead, and manganese. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U). All analytes associated with the equipment blanks were nondetect.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120 %were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than 80%were qualified as estimated.
- Nondetect sample results associated with a calibration standard exhibiting a recovery less than 80%but greater than 50 %were qualified as estimated.
- Non-detected sample results associated with a calibration standard exhibiting a recovery less than 50%were qualified as rejected.

4. Precision Measurement

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-03-COMP1 (0-1). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Field duplicate was not analyzed with this SDG.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/08/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-060805	QC		QC
2	733	OU4-SS-EBLANK1-060805	QC		QC
3	733	OU4-SS-MBLANK1-060805	QC		QC
4	733	OU4-SS-CLPSTD1-060805	QC		QC
5	733	OU4-SS-03-COMP1(0-1)-1	QC	03	S16
6	733	OU4-SS-03-COMP1(0-1)-2	QC	03	S16
7	733	OU4-SS-03-COMP1(0-1)-3	QC	03	S16
8	733	OU4-SS-03-COMP1(0-1)-4	QC	03	S16
9	733	OU4-SS-03-COMP1(0-1)-5	QC	03	S16
10	733	OU4-SS-03-COMP1(0-1)-6	QC		QC
11	733	OU4-SS-03-COMP1(0-1)-7	QC		QC
12	733	OU4-SS-04-COMP1(0-1)	FS	04	E06
13	733	OU4-SS-04-COMP1(1-6)	FS	04	E06
14	733	OU4-SS-04-COMP1(6-12)	FS	04	E06
15	733	OU4-SS-04-COMP1(12-18)	FS	04	E06
16	733	OU4-SS-04-COMP2(0-1)	FS	04	E06
17	733	OU4-SS-04-COMP2(1-6)	FS	04	E06
18	733	OU4-SS-04-COMP2(6-12)	FS	04	E06
19	733	OU4-SS-04-COMP2(12-18)	FS	04	E06
20	733	OU4-SS-EBLANK2-060805	QC		QC
21	733	OU4-SS-MBLANK2-060805	QC		QC
22	733	OU4-SS-CLPSTD2-060805	QC		QC
23	733	OU4-SS-STD2-060805	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-COMP1(0-1) 0 - 1 06/03/05	OU4-SS-04-COMP1(1-6) 1 - 6 06/03/05	OU4-SS-04-COMP1(6-12) 6 - 12 06/03/05	OU4-SS-04-COMP1(12-18) 12 - 18 06/03/05	OU4-SS-04-COMP2(0-1) 0 - 1 06/03/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	mg/kg	10.73 U	12.9 U	12.05	6.22 U	20.86
Barium	mg/kg	345.22 J	541.08 J	344.84 J	352.72 J	417.35 J
Cadmium	mg/kg	34.93 U	59.78	36.09 U	34.67 U	41.47
Chromium	mg/kg	103.59 U	114.3 U	112.17 J	91.86 U	100.78 U
Cobalt	mg/kg	~~109.2 U~~ R	~~120.44 U~~ R	~~105.18 U~~ R	~~82.85 U~~ R	~~99.8 U~~ R
Copper	mg/kg	41.1 J	42.76 J	93.36 J	11.94 U	42.76 J
Iron	mg/kg	20118.91 J	23149.18	17650.97 J	11332.68 J	16327.78 J
Lead	mg/kg	248.07 J	337.39 J	203.35 J	68.06 J	202.2 J
Manganese	mg/kg	651.32 J	816.92 J	993.57 J	1031.77 J	591.93 J
Mercury	mg/kg	9.46 U J	9.99 U J	9.37 U J	7.77 U J	9.38 U J
Nickel	mg/kg	23.4 U	25.35 U	22.45 U	19.46 U	22.17 U
Selenium	mg/kg	2.64 U	2.96 U	2.68 U	2.37 U	2.68 U
Silver	mg/kg	24.61 U J	26.01 U J	25.22 U J	24.32 U J	24.51 U J
Zinc	mg/kg	2206.39 J	3027.41 J	2329 J	377.46 J	2266.02 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-COMP2(1-6) 1 - 6 06/03/05	OU4-SS-04-COMP2(6-12) 6 - 12 06/03/05	OU4-SS-04-COMP2(12-18) 12 - 18 06/03/05
Metals - XRF (USEPA SW-846 62(				
Arsenic	mg/kg	10.58 U	6.7	8.8
Barium	mg/kg	617.23 J	330.02 J	291.51 U
Cadmium	mg/kg	36.49 U	36.03 U	36.17 U
Chromium	mg/kg	106.12 U	100.32 U	109.74 U
Cobalt	mg/kg	~~100.23 U~~ R	~~100.82 U~~ R	~~148.3~~ 141.3 J
Copper	mg/kg	59.59 J	22.46 J	13.55 U
Iron	mg/kg	15859.64 U	16663.94 U	21736.26 U
Lead	mg/kg	226.78 J	64.18 J	131.89 J
Manganese	mg/kg	777.69 J	753.97 J	752.39 J
Mercury	mg/kg	9.45 U J	8.01 U J	9.18 U J
Nickel	mg/kg	23.12 U	22.13 U	24.3 U
Selenium	mg/kg	2.79 U	2.45 U	2.79 U
Silver	mg/kg	25.45 U J	25.28 U J	25.41 U J
Zinc	mg/kg	2430.79 J	1086.07 J	1576.42 J

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

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JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-060805 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.71	208	106.59	Acceptable
Barium	866.12	879	98.53	Acceptable
Cadmium	146.65	141	104.01	Acceptable
Chromium	204.87	132	155.20	Not Acceptable
Cobalt	0	131	0.00	Not Acceptable
Copper	113.55	98.8	114.93	Acceptable
Iron	20474.22	24400	83.91	Acceptable
Lead	204.31	179	114.14	Acceptable
Manganese	426.77	591	72.21	Not Acceptable
Mercury	91.98	11.2	821.25	Not Acceptable
Nickel	83.57	80.1	104.33	Acceptable
Selenium	215.05	181	118.81	Acceptable
Silver	113.3	147	77.07	Not Acceptable
Zinc	299.43	263	113.85	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-060805 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	229.49	208	110.33	Acceptable
Barium	589.55	879	67.07	Not Acceptable
Cadmium	146.53	141	103.92	Acceptable
Chromium	290.27	132	219.90	Not Acceptable
Cobalt	241.48	131	184.34	Not Acceptable
Copper	128.81	98.8	130.37	Not Acceptable
Iron	20801.18	24400	85.25	Acceptable
Lead	227.86	179	127.30	Not Acceptable
Manganese	490.6	591	83.01	Acceptable
Mercury	95.24	11.2	850.36	Not Acceptable
Nickel	111.92	80.1	139.73	Not Acceptable
Selenium	212.02	181	117.14	Acceptable
Silver	128	147	87.07	Acceptable
Zinc	331.85	263	126.18	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS			
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-060805 06/08/05	OU4-SS-MBLANK2-060805 06/08/05
Metals - XRF			
Iron	mg/kg	**3929.09**	**4439.74**
Lead	mg/kg	**5.89**	**7.94**
Manganese	mg/kg	**83.35**	**83.96**

Note:
Only detected analytes on specified day of analysis are summarized.

EQUIPMENT BLANKS			
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1-060805 06/08/05	OU4-SS-EBLANK2-060805 06/08/05
Analytes associated with the equipment blanks were not detected.			

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-03-COMP1(0-1) 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-1 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-2 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-3 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-4 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-5 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-6 0 - 1 6/2/05	OU4-SS-03-COMP1(0-1)-7 0 - 1 6/2/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8.6	24.03	26 58	33.33	31	27 33	30.28	30.5	26 02	3.111977	28.63375	10.86821
Barium	mg/kg	11000	2632 07	2457.43	2446.61	2624 39	2726.19	2529.04	2619.82	2556.29	95.11224	2573 98	3 695143
Cadmium	mg/kg	78	101.14	89 62	91 8	80.61	105.32	90.1	87.88	98.2	7.982363	93.08375	8 575463
Chromium	mg/kg	780	125.98	120.81	118.45	123.4	125.03	122 21	122 87	122.9	2.348878	122.7063	1 914228
Cobalt	mg/kg	9400	129.23	121.91	122 58	121.98	122.54	123.5	122 21	122.79	2.432199	123 3425	1 971907
Copper	mg/kg	6200	74.97	82.49	87.52	77.24	79.78	78.86	76.45	73 81	4.441345	78.89	5 629794
Iron	mg/kg	46000	26346.35	24656 87	25052.14	24949.69	24782.14	25118.77	25116.26	24961 36	519.7934	25122.95	2 068998
Lead	mg/kg	240	581.66	487.01	479 99	466.65	478.6	477 62	470 66	493.24	37 21351	491 9288	7 564816
Manganese	mg/kg	3600	832.42	786.08	792 94	703.7	807.33	774.3	722.46	779.09	42 50698	774.79	5.486258
Mercury	mg/kg	15 6	11.62	10 91	11.12	11.12	11 51	11.4	11.14	11 31	0.236035	11.26625	2 095062
Nickel	mg/kg	3200	25.49	25.12	24 8	25.04	25.75	25.23	25.32	25.1	0.291814	25.23125	1.156557
Selenium	mg/kg	780	3.2	3.02	3.16	3.11	3.17	3.24	3.2	3.14	0.067612	3.155	2.143022
Silver	mg/kg	780	25.61	25 06	25.16	25.13	25 22	25.08	25.23	25	0.188372	25.18625	0.747915
Zinc	mg/kg	46000	6501 83	5669	5746.53	5697 66	5738.21	5777.01	5786.82	5709.94	274.9672	5828.375	4.717734

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF060905

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF060905 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-04-COMP3(0-1)	Soil	6/9/2005				X	
OU4-SS-04-COMP3(1-6)	Soil	6/9/2005				X	
OU4-SS-04-COMP3(6-12)	Soil	6/9/2005				X	
OU4-SS-04-COMP3(12-18)	Soil	6/9/2005				X	
OU4-SS-04-COMP4(0-1)	Soil	6/9/2005				X	
OU4-SS-04-COMP4(1-6)	Soil	6/9/2005				X	
OU4-SS-04-COMP4(6-12)	Soil	6/9/2005				X	
OU4-SS-04-COMP4(12-18)	Soil	6/9/2005				X	
OU4-SS-04-COMP5(0-1)	Soil	6/9/2005				X	
OU4-SS-04-COMP5(1-6)	Soil	6/9/2005				X	
OU4-SS-04-COMP5(6-12)	Soil	6/9/2005				X	
OU4-SS-04-COMP5(12-18)	Soil	6/9/2005				X	
OU4-SS-04-COMP6(0-1)	Soil	6/9/2005				X	
OU4-SS-04-COMP6(1-6)	Soil	6/9/2005				X	
OU4-SS-04-COMP6(6-12)	Soil	6/9/2005				X	
OU4-SS-04-COMP6(12-18)	Soil	6/9/2005				X	
OU4-SS-05-COMP1(0-1)	Soil	6/9/2005				X	
OU4-SS-05-COMP1(1-6)	Soil	6/9/2005				X	
OU4-SS-05-COMP1(6-12)	Soil	6/9/2005				X	
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OU4-SS-05-COMP2(1-6)	Soil	6/9/2005				X	
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OU4-SS-05-COMP2(12-18)	Soil	6/9/2005				X	
OU4-SS-05-COMP3(0-1)	Soil	6/9/2005				X	
OU4-SS-05-COMP3(1-6)	Soil	6/9/2005				X	
OU4-SS-05-COMP3(6-12)	Soil	6/9/2005				X	
OU4-SS-05-COMP3(12-18)	Soil	6/9/2005				X	
OU4-SS-05-COMP4(0-1)	Soil	6/9/2005				X	
OU4-SS-05-COMP4(1-6)	Soil	6/9/2005				X	
OU4-SS-05-COMP4(6-12)	Soil	6/9/2005				X	
OU4-SS-05-COMP4(12-18)	Soil	6/9/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

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The following analytes were detected in the associated method blanks or equipment blanks: cadmium, iron, lead, manganese, zinc, and silver. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U).

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120 %were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than 80% were qualified as estimated.
- Nondetect sample results associated with a calibration standard exhibiting a recovery less than 80% but greater than 50 %were qualified as estimated.

4. Precision Measurement (seven replicates)

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-04-COMP1 (1-6). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Field duplicate was not analyzed with this SDG.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/09/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-060905	QC		QC
2	733	OU4-SS-EBLANK1-060905	QC		QC
3	733	OU4-SS-MBLANK1-060905	QC		QC
4	733	OU4-SS-CLPSTD1-060905	QC		QC
5	733	OU4-SS-04-COMP1(1-6)-1	QC		QC
6	733	OU4-SS-04-COMP1(1-6)-2	QC		QC
7	733	OU4-SS-04-COMP1(1-6)-3	QC		QC
8	733	OU4-SS-04-COMP1(1-6)-4	QC		QC
9	733	OU4-SS-04-COMP1(1-6)-5	QC		QC
10	733	OU4-SS-04-COMP1(1-6)-6	QC		QC
11	733	OU4-SS-04-COMP1(1-6)-7	QC		QC
12	733	OU4-SS-04-COMP3(0-1)	FS	04	E06
13	733	OU4-SS-04-COMP3(1-6)	FS	04	E06
14	733	OU4-SS-04-COMP3(6-12)	FS	04	E06
15	733	OU4-SS-04-COMP3(12-18)	FS	04	E06
16	733	OU4-SS-04-COMP4(0-1)	FS	04	E06
17	733	OU4-SS-04-COMP4(1-6)	FS	04	E06
18	733	OU4-SS-04-COMP4(6-12)	FS	04	E06
19	733	OU4-SS-04-COMP4(12-18)	FS	04	E06
20	733	OU4-SS-EBLANK2-060905	QC		QC
21	733	OU4-SS-MBLANK2-060905	QC		QC
22	733	OU4-SS-CLPSTD2-060905	QC		QC
23	733	OU4-SS-04-COMP5(0-1)	FS	04	E06
24	733	OU4-SS-04-COMP5(1-6)	FS	04	E06
25	733	OU4-SS-04-COMP5(6-12)	FS	04	E06
26	733	OU4-SS-04-COMP5(12-18)	FS	04	E06
27	733	OU4-SS-04-COMP6(0-1)	FS	04	E06
28	733	OU4-SS-04-COMP6(1-6)	FS	04	E06
29	733	OU4-SS-04-COMP6(6-12)	FS	04	E06
30	733	OU4-SS-04-COMP6(12-18)	FS	04	E06
31	733	OU4-SS-05-COMP1(0-1)	FS	05	W05
32	733	OU4-SS-05-COMP1(1-6)	FS	05	W05
33	733	OU4-SS-05-COMP1(6-12)	FS	05	W05
34	733	OU4-SS-05-COMP1(12-18)	FS	05	W05
35	733	OU4-SS-05-COMP2(0-1)	FS	05	W05
36	733	OU4-SS-05-COMP2(1-6)	FS	05	W05
37	733	OU4-SS-05-COMP2(6-12)	FS	05	W05

Electronic Log for 06/09/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-05-COMP2(12-18)	FS	05	W05
39	733	OU4-SS-EBLANK3-060905	QC		QC
40	733	OU4-SS-MBLANK3-060905	QC		QC
41	733	OU4-SS-CLPSTD3-060905	QC		QC
42	733	OU4-SS-05-COMP3(0-1)	FS	05	W05
43	733	OU4-SS-05-COMP3(1-6)	FS	05	W05
44	733	OU4-SS-05-COMP3(6-12)	FS	05	W05
45	733	OU4-SS-05-COMP3(12-18)	FS	05	W05
46	733	OU4-SS-05-COMP4(0-1)	FS	05	W05
47	733	OU4-SS-05-COMP4(1-6)	FS	05	W05
48	733	OU4-SS-05-COMP4(6-12)	FS	05	W05
49	733	OU4-SS-05-COMP4(12-18)	FS	05	W05
50	733	OU4-SS-EBLANK4-060905	QC		QC
51	733	OU4-SS-MBLANK4-060905	QC		QC
52	733	OU4-SS-CLPSTD4-060905	QC		QC
53	733	OU4-SS-STD2-060905	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

DRAFT

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-COMP3(0-1) 0 - 1 06/03/05	OU4-SS-04-COMP3(1-6) 1 - 6 06/03/05	OU4-SS-04-COMP3(6-12) 6 - 12 06/03/05	OU4-SS-04-COMP3(12-18) 12 - 18 06/03/05	OU4-SS-04-COMP4(0-1) 0 - 1 06/02/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	mg/kg	11.58 U	17.09	6.53	5.99	19.37
Barium	mg/kg	716.32 J	612.05 J	280.23 J	316.37 J	324.02 J
Cadmium	mg/kg	36.08 U	48.17	35.94 U	35.99 U	42.25
Chromium	mg/kg	109.77 U	111.3 U	101.98 U	102.81 U	105.88 U
Cobalt	mg/kg	118.58 U	119.11 U	104.43 U	115.17 U	111.75 U
Copper	mg/kg	57.79 J	52.05 J	16.94 J	12.77 U	31.8 J
Iron	mg/kg	22529.24 U	22032.56 U	18068.28 U	21499.58 U	20396.43 U
Lead	mg/kg	275.58 J	207.33 J	32.48 U	16.33 U	335.38 J
Manganese	mg/kg	681.56 UJ	733.33 UJ	508.59 UJ	342.43 UJ	776.68 UJ
Mercury	mg/kg	9.98 U J	10.4 U J	8.27 U J	7.71 U J	9.62 U J
Nickel	mg/kg	25.24 U	25.05 U	22.45 U	23.38 U	24.05 U
Selenium	mg/kg	2.79 U	2.9 U	2.48 U	2.48 U	2.91 U
Silver	mg/kg	25.45 U J	25.82 U J	24.98 U J	25.37 U J	25.09 U J
Zinc	mg/kg	3052.21 J	3124.78 J	929.13 J	175.97 J	1397.57 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-COMP4(1-6) 1 - 6 06/02/05	OU4-SS-04-COMP4(6-12) 6 - 12 06/02/05	OU4-SS-04-COMP4(12-18) 12 - 18 06/02/05	OU4-SS-04-COMP5(0-1) 0 - 1 06/02/05	OU4-SS-04-COMP5(1-6) 1 - 6 06/02/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	10.89 U	7.66	4.43 U	10.86	5.94 U
Barium	mg/kg	542.3 J	269.62 U J	260.68 U J	280.3 J	249.7 U J
Cadmium	mg/kg	36.78 U	35.33 U	35 U	36.5 U	34.9 U
Chromium	mg/kg	106.67 U	95.6 U	93.68 U	102.02 U	92.01 U
Cobalt	mg/kg	109.33 U	90.01 U	81.22 U	96.72 U	85.91 U
Copper	mg/kg	74.23 J	20.53J	11.51 U	22.63 J	12.14 U
Iron	mg/kg	19093.53 U	13676.76 U	10667.74 U	14909.84 U	12356.54 U
Lead	mg/kg	234.13 J	84.07 J	17.93 U	80.46 J	57.75 J
Manganese	mg/kg	788.41 UJ	904.46 J	683.47 UJ	554.83 UJ	993.5 J
Mercury	mg/kg	9.46 U J	8.44 U J	7.52 U J	9.03 U J	7.45 U J
Nickel	mg/kg	23.26 U	20.63 U	19.94 U	22.26 U	20.09 U
Selenium	mg/kg	2.76 U	2.56 U	2.38 U	2.71 U	2.39 U
Silver	mg/kg	25.77 U J	24.62 U J	24.51 U J	25.6 U J	24.24 U J
Zinc	mg/kg	1847.27 J	974.63 J	153.76 J	1086.66 J	865 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-COMP5(6-12) 6 - 12 06/02/05	OU4-SS-04-COMP5(12-18) 12 - 18 06/02/05	OU4-SS-04-COMP6(0-1) 0 - 1 06/03/05	OU4-SS-04-COMP6(1-6) 1 - 6 06/03/05	OU4-SS-04-COMP6(6-12) 6 - 12 06/03/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	4.35 U	8.7 U	26.12	22.28	7.21 U
Barium	mg/kg	253 U J	498.19 J	264.72 U J	580.33 J	383.19 J
Cadmium	mg/kg	35.3 U	36.03 U	35.24 U	36.43 U	35.31 U
Chromium	mg/kg	94.6 U	102.46 U	99.66 U	109.46 U	100.55 U
Cobalt	mg/kg	81.6 U	113.42 J Q	99.69 U	115.78 U	90.11 U
Copper	mg/kg	11.72 U	34.36 J	33.58 J	62.14 J	11.95 U
Iron	mg/kg	10515.08 U	15983.03 U	16311.72 U	21533.46 U	13524.35 U
Lead	mg/kg	14.92 U	144.75 J	294.43 J	359.93 J	98.77 J
Manganese	mg/kg	554.39 U J	780.21 U J	479.35 U J	570.43 U J	848.17 U J
Mercury	mg/kg	7.29 U J	8.85 U J	8.35 U J	9.52 U J	7.88 U J
Nickel	mg/kg	19.15 U	21.91 U	22.09 U	23.9 U	19.77 U
Selenium	mg/kg	2.3 U	2.65 U	2.84 U	2.91 U	2.39 U
Silver	mg/kg	24.67 U J	25.09 U J	24.65 U J	25.5 U J	24.56 U J
Zinc	mg/kg	97.55 J	1495.67 J	1576.7 J	2564.55 J	974.64 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-COMP6(12-18) 12 - 18 06/03/05	OU4-SS-05-COMP1(0-1) 0 - 1 06/06/05	OU4-SS-05-COMP1(1-6) 1 - 6 06/06/05	OU4-SS-05-COMP1(6-12) 6 - 12 06/06/05	OU4-SS-05-COMP1(12-18) 12 - 18 06/06/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	4.63 U	15.94	15.91	8.12 U	4.51 U
Barium	mg/kg	237.41 U J	2469 J	1689.7 J	257.76 J	242.28 U J
Cadmium	mg/kg	34.31 U	41.8 J	42.07 J	35.12 U	34.64 U
Chromium	mg/kg	91.85 U	114.73 U	113.64 U	95.21 U	92.32 U
Cobalt	mg/kg	73.21 U	94.85 U	101.31 U	84.76 U	80.5 U
Copper	mg/kg	11.27 U	30.18 J	29.65 J	37.31 J	11.54 U
Iron	mg/kg	8785.08 U	14998.5 U	16729.35 U	12464.7 U	11434.84 U
Lead	mg/kg	24.03 U	332.99 J	278.7 J	161.17 J	22.55 U
Manganese	mg/kg	720.33 UJ	445.39 UJ	506.38 UJ	392.25 UJ	366.09 UJ
Mercury	mg/kg	7.1 U J	9.11 U J	9.26 U J	8.08 U J	7.02 U J
Nickel	mg/kg	18.01 U	21.47 U	22.3 U	20.28 U	18.79 U
Selenium	mg/kg	2.22 U	2.84 U	2.77 U	2.39 U	2.31 U
Silver	mg/kg	23.89 U J	24.91 U J	25.65 U J	24.53 U J	24.19 U J
Zinc	mg/kg	169.75 J	2331.12 J	2362.72 J	526.22 J	96.07 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-COMP2(0-1) 0 - 1 06/06/05	OU4-SS-05-COMP2(1-6) 1 - 6 06/06/05	OU4-SS-05-COMP2(6-12) 6 - 12 06/06/05	OU4-SS-05-COMP2(12-18) 12 - 18 06/06/05	OU4-SS-05-COMP3(0-1) 0 - 1 06/06/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	12.17 U	25.21	20.2	8.71	8.49 U
Barium	mg/kg	1734.69 J	1484.49 J	252.19 U J	244.96 U J	1085.52 J
Cadmium	mg/kg	34.83 U	43.39 J	34.88 U	35.06 U	34.58 U
Chromium	mg/kg	101.73 U	195.33 J	98.4 U	96.84 U	100.93 U
Cobalt	mg/kg	96.19 U	117.51 U	83.21 U	86.65 U	88.86 U
Copper	mg/kg	29.64 J	64.29 J	30.58 J	11.35 U	21.26 J
Iron	mg/kg	16764.56 U	23573.07 U	12204.83 U	13112.41 U	13844.04 U
Lead	mg/kg	350.22 J	215.67 J	45.29 U	11.66 U	150.42 J
Manganese	mg/kg	544.74 J	543.37 J	303.66 J	302.76 J	349.26 U J
Mercury	mg/kg	9.31 U J	9.59 U J	7.05 U J	7.49 U J	8.45 U J
Nickel	mg/kg	24.46 J Q	24.42 U	19.42 U	19.77 U	20.67 U
Selenium	mg/kg	2.72 U	2.82 U	2.39 U	2.35 U	2.41 U
Silver	mg/kg	24.31 U J	25.34 U J	24.37 U J	24.34 U J	24.11 U J
Zinc	mg/kg	2109.03 J	1938.82 J	344 J	92.92 J	1184.08 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-COMP3(1-6) 1 - 6 06/06/05	OU4-SS-05-COMP3(6-12) 6 - 12 06/06/05	OU4-SS-05-COMP3(12-18) 12 - 18 06/06/05	OU4-SS-05-COMP4(0-1) 0 - 1 06/06/05	OU4-SS-05-COMP4(1-6) 1 - 6 06/06/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	16.74	10.25	5.89 U	14.42	9.4
Barium	mg/kg	1547.64 J	507.39 J	265.9 U J	1438.96 J	828.87 J
Cadmium	mg/kg	36.21 U	41.33 J	36.07 U	34.57 U	35.14 U
Chromium	mg/kg	112.01 U	103.87 U	98.74 U	100.48 U	98.3 U
Cobalt	mg/kg	101.02 U	106.7 U	106.68 U	84.89 U	87.35 U
Copper	mg/kg	34.63 J	12.95 U	12.69 U	21.73 J	14.05 J
Iron	mg/kg	17104.04 U	18728.4 U	19708.37 U	12004.22 U	12904.28 U
Lead	mg/kg	202.18 J	80.67 J	50.15 J	486.53 J	144.75 J
Manganese	mg/kg	444.3 UJ	428.63 UJ	368.54 UJ	362.74 UJ	410.78 UJ
Mercury	mg/kg	8.82 U J	8.37 U J	8.9 JQ	9.18 U J	7.89 U J
Nickel	mg/kg	22.77 U	22.5 U	25.05 JQ	20.39 U	20.23 U
Selenium	mg/kg	2.79 U	2.55 U	2.46 U	2.85 U	2.52 U
Silver	mg/kg	25.37 U J	25.17 U J	25.16 U J	24.03 U J	24.56 U J
Zinc	mg/kg	2000.11 J	898.92 J	338.36 J	2234.11 J	1290.38 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-COMP4(6-12) 6 - 12 06/06/05	OU4-SS-05-COMP4(12-18) 12 - 18 06/06/05
Metals - XRF (USEPA SW-846 62(			
Arsenic	mg/kg	4.57 U	3.96 U
Barium	mg/kg	250.57 U J	217.36 U J
Cadmium	mg/kg	35.79 U	37.37
Chromium	mg/kg	96.13 U	87.01 U
Cobalt	mg/kg	91.61 U	69.22 U
Copper	mg/kg	11.68 U	10.43 U
Iron	mg/kg	14105.44 U	8158.5 U
Lead	mg/kg	19.87 U	13.49 U
Manganese	mg/kg	369.52 U J	352.52 U J
Mercury	mg/kg	7.44 U J	6.93 U J
Nickel	mg/kg	20.62 U	17.11 U
Selenium	mg/kg	2.29 U	2.29 U
Silver	mg/kg	24.9 U J	23.71 U J
Zinc	mg/kg	95.53 J	53.53 U

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-060905 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	227.86	208	109.55	Acceptable
Barium	729.1	879	82.95	Acceptable
Cadmium	146.46	141	103.87	Acceptable
Chromium	260.51	132	197.36	Not Acceptable
Cobalt	227.35	131	173.55	Not Acceptable
Copper	113.99	98.8	115.37	Acceptable
Iron	22290.66	24400	91.36	Acceptable
Lead	216.75	179	121.09	Not Acceptable
Manganese	394.32	591	66.72	Not Acceptable
Mercury	79.13	11.2	706.52	Not Acceptable
Nickel	93.38	80.1	116.58	Acceptable
Selenium	217.58	181	120.21	Not Acceptable
Silver	114.76	147	78.07	Not Acceptable
Zinc	317.45	263	120.70	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-060905 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	222.83	208	107.13	Acceptable
Barium	668.17	879	76.01	Not Acceptable
Cadmium	155.2	141	110.07	Acceptable
Chromium	222.8	132	168.79	Not Acceptable
Cobalt	168.52	131	128.64	Not Acceptable
Copper	125.34	98.8	126.86	Not Acceptable
Iron	20902.15	24400	85.66	Acceptable
Lead	210.61	179	117.66	Acceptable
Manganese	435.89	591	73.75	Not Acceptable
Mercury	87.81	11.2	784.02	Not Acceptable
Nickel	98.57	80.1	123.06	Not Acceptable
Selenium	206.98	181	114.35	Acceptable
Silver	126.7	147	86.19	Acceptable
Zinc	313.08	263	119.04	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-060905 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	235.47	208	113.21	Acceptable
Barium	786.52	879	89.48	Acceptable
Cadmium	174.61	141	123.84	Not Acceptable
Chromium	237.21	132	179.70	Not Acceptable
Cobalt	213.69	131	163.12	Not Acceptable
Copper	126.2	98.8	127.73	Not Acceptable
Iron	21888.28	24400	89.71	Acceptable
Lead	216.26	179	120.82	Not Acceptable
Manganese	431.94	591	73.09	Not Acceptable
Mercury	90.96	11.2	812.14	Not Acceptable
Nickel	101.73	80.1	127.00	Not Acceptable
Selenium	219.54	181	121.29	Not Acceptable
Silver	115.64	147	78.67	Not Acceptable
Zinc	320.65	263	121.92	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-060905 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	222.9	208	107.16	Acceptable
Barium	492.54	879	56.03	Not Acceptable
Cadmium	131.88	141	93.53	Acceptable
Chromium	140.96	132	106.79	Acceptable
Cobalt	160.24	131	122.32	Not Acceptable
Copper	121.77	98.8	123.25	Not Acceptable
Iron	22553.85	24400	92.43	Acceptable
Lead	215.46	179	120.37	Not Acceptable
Manganese	517.09	591	87.49	Acceptable
Mercury	81.67	11.2	729.20	Not Acceptable
Nickel	75.74	80.1	94.56	Acceptable
Selenium	210.08	181	116.07	Acceptable
Silver	80.88	147	55.02	Not Acceptable
Zinc	283.85	263	107.93	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS					
Sample ID: Sample Depth(): Date Collected:	Units	OU4-SS-MBLANK1-060905 06/09/05	OU4-SS-MBLANK2-060905 06/09/05	OU4-SS-MBLANK3-060905 06/09/05	OU4-SS-MBLANK4-060905 06/09/05
Metals - XRF					
Cadmium	mg/kg	34.19 U	34.13 U	34.12 U	**37.16**
Iron	mg/kg	**3726.2**	**4758.42**	**3790.61**	**4833.94**
Lead	mg/kg	**8.27**	**10.07**	5.18 U	**8.59**
Manganese	mg/kg	**99.97**	**170.34**	**110.79**	**73.11**
Silver	mg/kg	23.9 U	23.68 U	**28.28**	23.65 U
Zinc	mg/kg	6.66 U	**11.94**	6.91 U	**14.56**

Note:
Only detected analytes on specified day of analysis are summarized.
Equipment Blanks were not detected.

EQUIPMENT BLANKS					
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1-060905 06/09/05	OU4-SS-EBLANK2-060905 06/09/05	OU4-SS-EBLANK3-060905 06/09/05	OU4-SS-EBLANK4-060905 06/09/05
Analytes associated with the equipment blanks were not detected.					

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-04-COMP1(1-6) 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-1 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-2 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-3 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-4 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-5 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-6 1 - 6 6/3/05	OU4-SS-04-COMP1(1-6)-7 1 - 6 6/3/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8 6	12 9	12.82	21.54	20.15	12.03	21 56	21 6	12 08	4.712591	16.835	27.99282
Barium	mg/kg	11000	541 08	590 61	579.79	612.22	442.45	653.9	719 54	672.95	85.72096	601.5675	14.2496
Cadmium	mg/kg	78	59.78	50.87	36.57	37 09	37.12	36 96	63.66	46.49	11.04907	46.0675	23.98452
Chromium	mg/kg	780	114.3	112	112.77	111.36	111 9	111.67	114 06	112.03	1.106144	112.5113	0.983141
Cobalt	mg/kg	9400	120.44	120.17	118 6	119.7	122.16	120.53	121 26	121.66	1.134422	120 565	0.940922
Copper	mg/kg	6200	42.76	43.09	45.02	46 89	37.81	40.1	41.78	48.16	3.431249	43 20125	7.942476
Iron	mg/kg	46000	23149.18	22892 24	22877.21	22818.6	23646.6	23298 07	23326.62	23466 69	302.6637	23184.4	1.305463
Lead	mg/kg	240	337 39	337.46	331.36	321.63	287.21	277.85	278.2	290.04	26.7634	307.6425	8.699512
Manganese	mg/kg	3600	816 92	867 61	797.02	827.53	749.02	695.32	666.17	706.77	72.13429	765.795	9.41953
Mercury	mg/kg	15.6	9.99	10.17	10.17	10 25	10.19	10.46	9.42	10.4	0 322199	10.13125	3.180254
Nickel	mg/kg	3200	25.35	25	24.63	25 06	24.85	24.5	25.77	24.78	0.409939	24.9925	1.640248
Selenium	mg/kg	780	2.96	2.98	2 87	3.17	2 99	2.74	2.98	2.84	0.127553	2.94125	4.336677
Silver	mg/kg	780	26.01	25.79	25.67	25.9	26.01	25 87	25.79	25 98	0.122212	25.8775	0.47227
Zinc	mg/kg	46000	3027.41	3047.74	3008 26	3075.15	2656 63	2656.53	2689.96	2632.62	204.9389	2849.288	7.192636

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF061005

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF061005 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-06-COMP1(0-1)	Soil	6/10/2005				X	
OU4-SS-06-COMP1(1-6)	Soil	6/10/2005				X	
OU4-SS-06-COMP1(6-12)	Soil	6/10/2005				X	
OU4-SS-06-COMP1(12-18)	Soil	6/10/2005				X	
OU4-SS-06-COMP2(0-1)	Soil	6/10/2005				X	
OU4-SS-06-COMP2(1-6)	Soil	6/10/2005				X	
OU4-SS-06-COMP2(6-12)	Soil	6/10/2005				X	
OU4-SS-06-COMP2(12-18)	Soil	6/10/2005				X	
OU4-SS-06-COMP3(0-1)	Soil	6/10/2005				X	
OU4-SS-06-COMP3(1-6)	Soil	6/10/2005				X	
OU4-SS-06-COMP3(6-12)	Soil	6/10/2005				X	
OU4-SS-06-COMP3(12-18)	Soil	6/10/2005				X	
OU4-SS-06-COMP4(0-1)	Soil	6/10/2005				X	
OU4-SS-06-COMP4(1-6)	Soil	6/10/2005				X	
OU4-SS-06-COMP4(6-12)	Soil	6/10/2005				X	
OU4-SS-06-COMP4(12-18)	Soil	6/10/2005				X	
OU4-SS-06-COMP5(0-1)	Soil	6/10/2005				X	
OU4-SS-06-COMP5(1-6)	Soil	6/10/2005				X	
OU4-SS-06-COMP5(6-12)	Soil	6/10/2005				X	
OU4-SS-06-COMP5(12-18)	Soil	6/10/2005				X	
OU4-SS-07-COMP1(0-1)	Soil	6/10/2005				X	
OU4-SS-07-COMP1(1-6)	Soil	6/10/2005				X	
OU4-SS-07-COMP1(6-12)	Soil	6/10/2005				X	
OU4-SS-07-COMP1(12-18)	Soil	6/10/2005				X	
OU4-SS-07-COMP2(0-1)	Soil	6/10/2005				X	
OU4-SS-07-COMP2(1-6)	Soil	6/10/2005				X	
OU4-SS-07-COMP2(6-12)	Soil	6/10/2005				X	
OU4-SS-07-COMP2(12-18)	Soil	6/10/2005				X	
OU4-SS-07-COMP3(0-1)	Soil	6/10/2005				X	
OU4-SS-07-COMP3(1-6)	Soil	6/10/2005				X	
OU4-SS-07-COMP3(6-12)	Soil	6/10/2005				X	
OU4-SS-07-COMP3(12-18)	Soil	6/10/2005				X	
OU4-SS-07-COMP4(0-1)	Soil	6/10/2005				X	
OU4-SS-07-COMP4(1-6)	Soil	6/10/2005				X	
OU4-SS-07-COMP4(6-12)	Soil	6/10/2005				X	
OU4-SS-07-COMP4(12-18)	Soil	6/10/2005				X	
OU4-SS-07-COMP5(0-1)	Soil	6/10/2005				X	
OU4-SS-07-COMP5(1-6)	Soil	6/10/2005				X	
OU4-SS-07-COMP5(6-12)	Soil	6/10/2005				X	
OU4-SS-07-COMP5(12-18)	Soil	6/10/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The following analytes were detected in the associated method blanks or equipment blanks: iron, lead, manganese, zinc, and silver. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U).

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120% were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than 80% were qualified as estimated.
- Nondetected sample results associated with a calibration standard exhibiting a recovery less than 80% but greater than 50%were qualified as estimated.

4. Precision Measurement (seven replicates)

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-05-COMP4 (0-1). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Field duplicate was not analyzed with this SDG.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/10/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-061005	QC		QC
2	733	OU4-SS-EBLANK1-061005	QC		QC
3	733	OU4-SS-MBLANK1-061005	QC		QC
4	733	OU4-SS-CLPSTD1-061005	QC		QC
5	733	OU4-SS-O5-COMP4(0-1)-1	QC	O5	QC
6	733	OU4-SS-05-COMP4(0-1)-2	QC		QC
7	733	OU4-SS-05-COMP4(0-1)-3	QC		QC
8	733	OU4-SS-05-COMP4(0-1)-4	QC		QC
9	733	OU4-SS-05-COMP4(0-1)-5	QC		QC
10	733	OU4-SS-05-COMP4(0-1)-6	QC		QC
11	733	OU4-SS-05-COMP4(0-1)-7	QC		QC
12	733	OU4-SS-06-COMP1(0-1)	FS	06	D19
13	733	OU4-SS-06-COMP1(1-6)	FS	06	D19
14	733	OU4-SS-06-COMP1(6-12)	FS	06	D19
15	733	OU4-SS-06-COMP1(12-18)	FS	06	D19
16	733	OU4-SS-06-COMP2(0-1)	FS	06	D19
17	733	OU4-SS-06-COMP2(1-6)	FS	06	D19
18	733	OU4-SS-06-COMP2(6-12)	FS	06	D19
19	733	OU4-SS-06-COMP2(12-18)	FS	06	D19
20	733	OU4-SS-EBLANK2-061005	QC		QC
21	733	OU4-SS-MBLANK2-061005	QC		QC
22	733	OU4-SS-CLPSTD2-061005	QC		QC
23	733	OU4-SS-06-COMP3(0-1)	FS	06	D19
24	733	OU4-SS-06-COMP3(1-6)	FS	06	D19
25	733	OU4-SS-06-COMP3(6-12)	FS	06	D19
26	733	OU4-SS-06-COMP3(12-18)	FS	06	D19
27	733	OU4-SS-06-COMP4(0-1)	FS	06	D19
28	733	OU4-SS-06-COMP4(1-6)	FS	06	D19
29	733	OU4-SS-06-COMP4(6-12)	FS	06	D19
30	733	OU4-SS-06-COMP4(12-18)	FS	06	D19
31	733	OU4-SS-06-COMP5(0-1)	FS	06	D19
32	733	OU4-SS-06-COMP5(1-6)	FS	06	D19
33	733	OU4-SS-06-COMP5(6-12)	FS	06	D19
34	733	OU4-SS-06-COMP5(12-18)	FS	06	D19
35	733	OU4-SS-07-COMP1(0-1)	FS	07	W02
36	733	OU4-SS-07-COMP1(1-6)	FS	07	W02
37	733	OU4-SS-07-COMP1(6-12)	FS	07	W02

Electronic Log for 06/10/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-07-COMP1(12-18)	FS	07	W02
39	733	OU4-SS-07-COMP2(0-1)	FS	07	W02
40	733	OU4-SS-07-COMP2(1-6)	FS	07	W02
41	733	OU4-SS-07-COMP2(6-12)	FS	07	W02
42	733	OU4-SS-07-COMP2(12-18)	FS	07	W02
43	733	OU4-SS-EBLANK3-061005	QC		QC
44	733	OU4-SS-MBLANK3-061005	QC		QC
45	733	OU4-SS-CLPSTD3-061005	QC		QC
46	733	OU4-SS-07-COMP3(0-1)	FS	07	W02
47	733	OU4-SS-07-COMP3(1-6)	FS	07	W02
48	733	OU4-SS-07-COMP3(6-12)	FS	07	W02
49	733	OU4-SS-07-COMP3(12-18)	FS	07	W02
50	733	OU4-SS-07-COMP4(0-1)	FS	07	W02
51	733	OU4-SS-07-COMP4(1-6)	FS	07	W02
52	733	OU4-SS-07-COMP4(6-12)	FS	07	W02
53	733	OU4-SS-07-COMP4(12-18)	FS	07	W02
54	733	OU4-SS-07-COMP5(0-1)	FS	07	W02
55	733	OU4-SS-07-COMP5(1-6)	FS	07	W02
56	733	OU4-SS-07-COMP5(6-12)	FS	07	W02
57	733	OU4-SS-07-COMP5(12-18)	FS	07	W02
58	733	OU4-SS-EBLANK4-061005	QC		QC
59	733	OU4-SS-MBLANK4-061005	QC		QC
60	733	OU4-SS-CLPSTD4-061005	QC		QC
61	733	OU4-SS-STD2-061005	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-COMP1(0-1) 0 - 1 06/07/05	OU4-SS-06-COMP1(1-6) 1 - 6 06/07/05	OU4-SS-06-COMP1(6-12) 6 - 12 06/07/05	OU4-SS-06-COMP1(12-18) 12 - 18 06/07/05	OU4-SS-06-COMP2(0-1) 0 - 1 06/06/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	mg/kg	9.47 U	11.68 U	5.56 U	4.89	12.8
Barium	mg/kg	416.96 J	1115.68 J	349.23 J	281.55 J	745.12 J
Cadmium	mg/kg	33.46 U	49.48 J	34.98 U	34.84 U	37.81 J
Chromium	mg/kg	99.1 U	135.52 J	98.61 U	96.6 U	107.38 U
Cobalt	mg/kg	99.63 U	118.93 U	97.65 U	97.89 U	105.38 U
Copper	mg/kg	22.38 J	47.88 J	13.41 J	12.2 U	27.86 J
Iron	mg/kg	17064.84 UJ	23024.27 UJ	16200.76 UJ	16932.39 UJ	18657.52 UJ
Lead	mg/kg	189.95 J	276.54 J	43.29 J	13.31 U	176.95 J
Manganese	mg/kg	442.14 UJ	787.86 UJ	458.35 UJ	315.81 UJ	576.62 UJ
Mercury	mg/kg	8.27 U J	10.7 U J	8.31 U J	7.09 U J	9.45 U
Nickel	mg/kg	21 U	24.86 U	21.08 U	21.62 U	22.55 U
Selenium	mg/kg	2.42 U	2.86 U	2.45 U	2.31 U	2.74 U
Silver	mg/kg	23.57 U J	25.58 U J	24.54 U J	24.43 U J	24.83 U J
Zinc	mg/kg	2307.74	4294.33	682.64	67.5	2369.31

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-COMP2(1-6) 1 - 6 06/06/05	OU4-SS-06-COMP2(6-12) 6 - 12 06/06/05	OU4-SS-06-COMP2(12-18) 12 - 18 06/06/05	OU4-SS-06-COMP3(0-1) 0 - 1 06/07/05	OU4-SS-06-COMP3(1-6) 1 - 6 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	16.68	11.27 U	8.17	10.79	14.48
Barium	mg/kg	1221.31 J	434.28 J	248.88 U J	871.61 J	1840.85 J
Cadmium	mg/kg	66.88 J	38.36 J	35.06 U	55.38	66.26
Chromium	mg/kg	118.08 U	106.96 U	97.01 U	104.81 U	123.36 U
Cobalt	mg/kg	117.65 U	123.87 J Q	97.69 U	112.04 J Q	131.32 U
Copper	mg/kg	49.17 J	28.84 J	13.05 J	32.48 Q	44.56
Iron	mg/kg	22067.46 U J	19424.07 U J	17036.53 U J	19791.63 J	26733.24 J
Lead	mg/kg	335.76 J	265.88 J	46.79 J	229.98 J	333.98 J
Manganese	mg/kg	653.35 U J	571.75 U J	526.61 U J	556.67 J	673.01 J
Mercury	mg/kg	10.95 U J	9.56 U J	7.67 U J	9.25 U J	11.71 U J
Nickel	mg/kg	24.5 U	23.19 U	21.02 U	22.17 U	26.76 U
Selenium	mg/kg	3.06 U	2.9 U	2.55 U	2.81 U	3.05 U
Silver	mg/kg	25.86 U J	25.41 U J	24.4 U J	24.47 U J	26.1 U J
Zinc	mg/kg	4422.15	2710.01	576.87	2990.39	5367.18

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-COMP3(6-12) 6 - 12 06/07/05	OU4-SS-06-COMP3(12-18) 12 - 18 06/07/05	OU4-SS-06-COMP4(0-1) 0 - 1 06/07/05	OU4-SS-06-COMP4(1-6) 1 - 6 06/07/05	OU4-SS-06-COMP4(6-12) 6 - 12 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	15.64	8.78	9.35 U	27.44	11.55
Barium	mg/kg	942.38 J	255.87 U J	643.54 J	1303.23 J	288.42 J
Cadmium	mg/kg	36.5 U	35.15 U	35.44 U	82.46	35.94 U
Chromium	mg/kg	111.69 U	98.21 U	105.56 U	127.78 U	103.04 U
Cobalt	mg/kg	118.42 U	101.83 U	110.83 U	143 U	111.7 U
Copper	mg/kg	38.89	12.66 U	24.01	62.75	13.73
Iron	mg/kg	23264.59 J	17984.05 U J	20733.19 J	31051.49 J	20705.34 J
Lead	mg/kg	274.41 J	46.5 J	174.01 J	444.11 J	96.36 J
Manganese	mg/kg	602.92 J	467.14 U J	543.37 U J	667.44 J	543.77 U J
Mercury	mg/kg	10.35 U J	7.73 U J	9.15 U J	11.6 U J	7.98 U J
Nickel	mg/kg	24.48 U	22.06 U	22.61 U	27.94 U	23.39 U
Selenium	mg/kg	3.03 U	2.34 U	2.55 U	3.11 U	2.68 U
Silver	mg/kg	25.51 U J	24.64 U J	24.63 U J	26.94 U J	25.16 U J
Zinc	mg/kg	3443.98	553.3	2420.25	4790.43	1320.23

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-COMP4(12-18) 12 - 18 06/07/05	OU4-SS-06-COMP5(0-1) 0 - 1 06/07/05	OU4-SS-06-COMP5(1-6) 1 - 6 06/07/05	OU4-SS-06-COMP5(6-12) 6 - 12 06/07/05	OU4-SS-06-COMP5(12-18) 12 - 18 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	6.86	13.2	19.36	11.53	8.49
Barium	mg/kg	241.57 U J	782.92 J	1069.4 J	286.32 U J	315.77 J
Cadmium	mg/kg	36.36	45.83	74.4	36.41 U	35.25 U
Chromium	mg/kg	93.33 U	108.39 U	108.96 U	109.37 U	97.09 U
Cobalt	mg/kg	89.52 U	111.89 U	114.88 U	126.69 U	102.55 U
Copper	mg/kg	11.46 U	31.16	57.18	31.75	12.63 U
Iron	mg/kg	14627.59 U J	20364.98 J	22415.57 J	26653.45 J	18368.71 U J
Lead	mg/kg	17.93 J	273.76 J	312.73 J	146.91 J	52.04 J
Manganese	mg/kg	370.4 U J	483.25 U J	543.34 U J	445.43 U J	427.06 U J
Mercury	mg/kg	7.16 U J	9.54 U J	10.18 U J	10.4 J Q	7.58 U J
Nickel	mg/kg	19.6 U	23.25 U	24.39 U	25.11 U	21.32 U
Selenium	mg/kg	2.22 U	2.84 U	2.87 U	2.62 U	2.52 U
Silver	mg/kg	23.73 U J	24.81 U J	25.03 U J	25.25 U J	24.61 U J
Zinc	mg/kg	114.29	3246.33	3898.84	1837.35	667.61

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-COMP1(0-1) 0 - 1 06/07/05	OU4-SS-07-COMP1(1-6) 1 - 6 06/07/05	OU4-SS-07-COMP1(6-12) 6 - 12 06/07/05	OU4-SS-07-COMP1(12-18) 12 - 18 06/07/05	OU4-SS-07-COMP2(0-1) 0 - 1 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	16.38	24.77	14.65	6.38	10.73 U
Barium	mg/kg	2010.32 J	3782.47 J	2492.42 J	402.99 J	1111.89 J
Cadmium	mg/kg	53.16	56.63	50.46	35.19 U	52.18
Chromium	mg/kg	122.65 J	135.77 U	124.6 U	96.25 U	106.72 U
Cobalt	mg/kg	111.77 U	127.29 U	132.4 U	92.6 U	104.18 U
Copper	mg/kg	37.72	77.25	49.77	16.74	29.39
Iron	mg/kg	20316.87 J	24316.55 J	28196.86 J	14785.29 UJ	18139.26 UJ
Lead	mg/kg	361.41 J	472.08 J	392.52 J	37.7 J	236.77 J
Manganese	mg/kg	479.41 UJ	709.35 J	518.55 UJ	419.26 UJ	507.31 UJ
Mercury	mg/kg	10.78 U J	12.39 U J	11.23 U J	7.79 U J	10.19 U J
Nickel	mg/kg	23.86 U	27.28 U	26.97 U	20.93 U	23.23 U
Selenium	mg/kg	2.87 U	3.22 U	3.06 U	2.36 U	2.79 U
Silver	mg/kg	25.53 U J	27.13 U J	25.93 U J	24.58 U J	25.04 U J
Zinc	mg/kg	3869.97	4839.15	3448.41	359.56	2538.63

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-COMP2(1-6) 1 - 6 06/07/05	OU4-SS-07-COMP2(6-12) 6 - 12 06/07/05	OU4-SS-07-COMP2(12-18) 12 - 18 06/07/05	OU4-SS-07-COMP3(0-1) 0 - 1 06/07/05	OU4-SS-07-COMP3(1-6) 1 - 6 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	19.61	15.2	4.71 U	10.89	13.05
Barium	mg/kg	1983.78 J	1045.38 J	305.5 J	1143.19 J	1952.32 J
Cadmium	mg/kg	44.4 J	37.33 U	35.24 U	66.78 J	39.3 J
Chromium	mg/kg	118.67 U	116.75 U	99.48 U	105.36 U	130.4 J
Cobalt	mg/kg	116 U	126.01 U	90.36 U	93.48 U	103.75 U
Copper	mg/kg	43.95 J	39.14 J	11.69 U	36.89 J	51.57 J
Iron	mg/kg	22005.27 J	26067.79 J	13836.47 UJ	14083.17 U	17186.76 U
Lead	mg/kg	305.8 J	261.49 J	24.5 U	184.99	236.43
Manganese	mg/kg	534.9 UJ	466.37 UJ	378.63 UJ	371.78 U	358.58 U
Mercury	mg/kg	10.36 U J	15.33 JQ	7.66 U J	9.27 U	9.71 U
Nickel	mg/kg	26.15	25.57 U	20.65 U	21.48 U	23.48 U
Selenium	mg/kg	2.8 U	2.88 U	2.39 U	2.69 U	2.77 U
Silver	mg/kg	25.94 U J	26.21 U J	24.51 U J	25.2 U	25.98 U
Zinc	mg/kg	2986.48	1822.9	169.12	2264.29	2737.8

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-COMP3(6-12) 6 - 12 06/07/05	OU4-SS-07-COMP3(12-18) 12 - 18 06/07/05	OU4-SS-07-COMP4(0-1) 0 - 1 06/07/05	OU4-SS-07-COMP4(1-6) 1 - 6 06/07/05	OU4-SS-07-COMP4(6-12) 6 - 12 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	11.73 U	6.27 U	22.11	13.41	11.34
Barium	mg/kg	2519.96 J	483.65 J	1863.51 J	1396.1 J	850.23 J
Cadmium	mg/kg	54.5 J	35.77 U	43.91 J	59.13 J	34.92 U
Chromium	mg/kg	122.08 U	98.1 U	119.41 U	106.87 U	103.96 U
Cobalt	mg/kg	114.41 U	96.02 U	107.6 U	94.37 U	95.84 U
Copper	mg/kg	44.81 J	12.45 U	66.65 J	53.13 J	26.07 J
Iron	mg/kg	20466.96 U	15330.41 U	17880.08 U	14790.92 U	16129.2 U
Lead	mg/kg	270.93	64.25	300.54	242.48	140.06
Manganese	mg/kg	512.71 U	387.98 U	544.65 U	373.39 U	419.34 U
Mercury	mg/kg	10.54 U	7.75 U	10.67 U	9.29 U	8.51 U
Nickel	mg/kg	26.59	21.67 U	24.21 U	21.6 U	21.19 U
Selenium	mg/kg	3 U	2.48 U	3.01 U	2.78 U	2.57 U
Silver	mg/kg	26.35 U	24.94 U	25.89 U	24.51 U	24.3 U
Zinc	mg/kg	2953.73	703.5	3310.1	2722.87	1712.58

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-COMP4(12-18) 12 - 18 06/07/05	OU4-SS-07-COMP5(0-1) 0 - 1 06/07/05	OU4-SS-07-COMP5(1-6) 1 - 6 06/07/05	OU4-SS-07-COMP5(6-12) 6 - 12 06/07/05	OU4-SS-07-COMP5(12-18) 12 - 18 06/07/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	6.28	19.93	13.95	10.89	10.56
Barium	mg/kg	352.15 J	1342.82 J	1457.12 J	1090.52 J	267.57 U J
Cadmium	mg/kg	35.1 U	55.8 J	68.54 J	43.41 J	35.68 U
Chromium	mg/kg	94.28 U	108.96 U	108.33 U	108.26 U	99.95 U
Cobalt	mg/kg	90.17 U	104.51 U	101.03 U	110.89 U	106.07 U
Copper	mg/kg	11.61 U	41.56 J	42.1 J	26.2 J	12.85 U
Iron	mg/kg	13784.51 U	18324.43 U	17032.26 U	21300.33	19088.45 U
Lead	mg/kg	12.54	307.75	273.58	155.88	67.31
Manganese	mg/kg	370.93 U	410.78 U	457.89 U	434.36 U	452.49 U
Mercury	mg/kg	7.15 U	9.34 U	9.27 U	9.06 U	8.49 U
Nickel	mg/kg	19.86 U	23.33 U	22.38 U	37.75	22.4 U
Selenium	mg/kg	2.33 U	2.78 U	2.94 U	2.56 U	2.49 U
Silver	mg/kg	24.46 U	24.95 U	24.96 U	24.93 U	24.82 U
Zinc	mg/kg	206.34	2782.6	3040.72	1565.53	532.66

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-061005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	224.58	208	107.97	Acceptable
Barium	635.43	879	72.29	Not Acceptable
Cadmium	171.57	141	121.68	Not Acceptable
Chromium	259.96	132	196.94	Not Acceptable
Cobalt	231.97	131	177.08	Not Acceptable
Copper	121.61	98.8	123.09	Not Acceptable
Iron	22602.15	24400	92.63	Acceptable
Lead	218.76	179	122.21	Not Acceptable
Manganese	410.06	591	69.38	Not Acceptable
Mercury	80.8	11.2	721.43	Not Acceptable
Nickel	94.7	80.1	118.23	Acceptable
Selenium	207.59	181	114.69	Acceptable
Silver	99.79	147	67.88	Not Acceptable
Zinc	290.43	263	110.43	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-061005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	228.91	208	110.05	Acceptable
Barium	579.8	879	65.96	Not Acceptable
Cadmium	150.51	141	106.74	Acceptable
Chromium	185.55	132	140.57	Not Acceptable
Cobalt	182.86	131	139.59	Not Acceptable
Copper	117.6	98.8	119.03	Acceptable
Iron	18921.11	24400	77.55	Not Acceptable
Lead	217.01	179	121.23	Not Acceptable
Manganese	375.69	591	63.57	Not Acceptable
Mercury	91.54	11.2	817.32	Not Acceptable
Nickel	88.75	80.1	110.80	Acceptable
Selenium	203.84	181	112.62	Acceptable
Silver	105.95	147	72.07	Not Acceptable
Zinc	310.97	263	118.24	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-061005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	217.04	208	104.35	Acceptable
Barium	700.61	879	79.71	Not Acceptable
Cadmium	144.75	141	102.66	Acceptable
Chromium	203.56	132	154.21	Not Acceptable
Cobalt	149.24	131	113.92	Acceptable
Copper	116.22	98.8	117.63	Acceptable
Iron	20196.56	24400	82.77	Acceptable
Lead	211.33	179	118.06	Acceptable
Manganese	452.31	591	76.53	Not Acceptable
Mercury	90.36	11.2	806.79	Not Acceptable
Nickel	113.95	80.1	142.26	Not Acceptable
Selenium	205.42	181	113.49	Acceptable
Silver	110.83	147	75.39	Not Acceptable
Zinc	303.69	263	115.47	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-061005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	224.26	208	107.82	Acceptable
Barium	696.15	879	79.20	Not Acceptable
Cadmium	177.92	141	126.18	Not Acceptable
Chromium	250.04	132	189.42	Not Acceptable
Cobalt	184.39	131	140.76	Not Acceptable
Copper	109.96	98.8	111.30	Acceptable
Iron	21644.16	24400	88.71	Acceptable
Lead	200.7	179	112.12	Acceptable
Manganese	443.76	591	75.09	Not Acceptable
Mercury	74.55	11.2	665.63	Not Acceptable
Nickel	108.62	80.1	135.61	Not Acceptable
Selenium	200.68	181	110.87	Acceptable
Silver	117.43	147	79.88	Not Acceptable
Zinc	308.23	263	117.20	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS					
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-061005 06/10/05	OU4-SS-MBLANK2-061005 06/10/05	OU4-SS-MBLANK3-061005 06/10/05	OU4-SS-MBLANK4-061005 06/10/05
Metals - XRF					
Iron	mg/kg	**5011.78**	**3537.97**	**3820.65**	**4245.3**
Lead	mg/kg	**6.9**	**6.56**	5.31 U	5.32 U
Manganese	mg/kg	**202.34**	**110.85**	**103.75**	**383.26**
Zinc	mg/kg	**8.26**	6.73 U	6.88 U	6.8 U

Note:
Only detected analytes on specified day of analysis are summarized.

EQUIPMENT BLANKS					
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1 061005 06/10/05	OU4-SS-EBLANK2-061005 06/10/05	OU4-SS-EBLANK3-061005 06/10/05	OU4-SS-EBLANK4-061005 06/10/05
Metals - XRF					
Silver	mg/kg	22.24 U	22.21 U	22.4 U	**28.47**

Note:
Only detected analytes on specified day of analysis are summarized.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-05-COMP4(0-1) 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-1 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-2 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-3 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-4 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-5 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-6 0 - 1 6/6/05	OU4-SS-05-COMP4(0-1)-7 0 - 1 6/6/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8 6	14.42	15 27	25.37	16.75	16 58	15.67	15 85	21 85	3.824952	17.72	21.58551
Barium	mg/kg	11000	1438 96	1359 2	1426.73	1282.75	1418.57	1544.74	1587 53	1518	100 2236	1447 06	6 926018
Cadmium	mg/kg	78	34.57	46 33	34.79	35.15	41.7	34.81	35 06	35 26	4.384862	37.20875	11.78449
Chromium	mg/kg	780	100.48	101.7	102.79	105.08	106.72	104 39	106.34	107.45	2.511451	104 3688	2.406324
Cobalt	mg/kg	9400	84.89	84.18	89.86	92.55	91.45	91.12	91 03	87 24	3.188578	89.04	3 581062
Copper	mg/kg	6200	21.73	14 95	30.57	31.47	29.74	22.6	23 81	17 31	6.161133	24.0225	25.64734
Iron	mg/kg	46000	12004.22	12076.76	13759.15	14030.53	13805.1	13941 3	14075.74	12561.78	904.7766	13281.82	6 812142
Lead	mg/kg	240	486.53	561.84	603 61	640.48	632.79	581 87	591.1	716.82	66.6387	601.88	11.07176
Manganese	mg/kg	3600	362.74	367.77	579 62	625.06	592.13	379 86	338.07	350.34	125 0154	449.4488	27.81528
Mercury	mg/kg	15.6	9.18	8.96	9.21	9.7	9.56	9 32	9.77	9.77	0.308171	9.43375	3 266691
Nickel	mg/kg	3200	20.39	20 04	20.96	21.32	20 83	20.35	21 29	21 27	0.493644	20.80625	2 372573
Selenium	mg/kg	780	2 85	2.77	3.09	3 09	2.92	2 92	2.93	3.19	0.140509	2 97	4.730952
Silver	mg/kg	780	24.03	24 06	24.54	24.81	24 65	24.33	24 53	24 67	0.286693	24.4525	1.172448
Zinc	mg/kg	46000	2234.11	2153.77	2817.66	2823 34	2783.43	2498.27	2515 67	2631.79	258.4995	2557.255	10.10848

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF061405

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF061405 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-08-COMP1(0-1)	Soil	6/14/2005				X	
OU4-SS-08-COMP1(1-6)	Soil	6/14/2005				X	
OU4-SS-08-COMP1(6-12)	Soil	6/14/2005				X	
OU4-SS-08-COMP1(12-18)	Soil	6/14/2005				X	
OU4-SS-08-COMP2(0-1)	Soil	6/14/2005				X	
OU4-SS-08-COMP2(1-6)	Soil	6/14/2005				X	
OU4-SS-08-COMP2(6-12)	Soil	6/14/2005				X	
OU4-SS-08-COMP2(12-18)	Soil	6/14/2005				X	
OU4-SS-08-COMP3(0-1)	Soil	6/14/2005				X	
OU4-SS-08-COMP3(1-6)	Soil	6/14/2005				X	
OU4-SS-08-COMP3(6-12)	Soil	6/14/2005				X	
OU4-SS-08-COMP3(12-18)	Soil	6/14/2005				X	
OU4-SS-08-COMP4(0-1)	Soil	6/14/2005				X	
OU4-SS-08-COMP4(1-6)	Soil	6/14/2005				X	
OU4-SS-08-COMP4(6-12)	Soil	6/14/2005				X	
OU4-SS-08-COMP4(12-18)	Soil	6/14/2005				X	
OU4-SS-09-COMP1(0-1)	Soil	6/14/2005				X	
OU4-SS-09-COMP1(1-6)	Soil	6/14/2005				X	
OU4-SS-09-COMP1(6-12)	Soil	6/14/2005				X	
OU4-SS-09-COMP1(12-18)	Soil	6/14/2005				X	
OU4-SS-09-COMP2(0-1)	Soil	6/14/2005				X	
OU4-SS-09-COMP2(1-6)	Soil	6/14/2005				X	
OU4-SS-09-COMP2(6-12)	Soil	6/14/2005				X	
OU4-SS-09-COMP2(12-18)	Soil	6/14/2005				X	
OU4-SS-09-COMP3(0-1)	Soil	6/14/2005				X	
OU4-SS-09-COMP3(1-6)	Soil	6/14/2005				X	
OU4-SS-09-COMP3(6-12)	Soil	6/14/2005				X	
OU4-SS-09-COMP3(12-18)	Soil	6/14/2005				X	
OU4-SS-09-COMP4(0-1)	Soil	6/14/2005				X	
OU4-SS-09-COMP4(1-6)	Soil	6/14/2005				X	
OU4-SS-09-COMP4(6-12)	Soil	6/14/2005				X	
OU4-SS-09-COMP4(12-18)	Soil	6/14/2005				X	
OU4-SS-09-COMP5(0-1)	Soil	6/14/2005				X	
OU4-SS-09-COMP5(1-6)	Soil	6/14/2005				X	
OU4-SS-09-COMP5(6-12)	Soil	6/14/2005				X	
OU4-SS-09-COMP5(12-18)	Soil	6/14/2005				X	
OU4-SS-10-COMP1(0-1)	Soil	6/14/2005				X	
OU4-SS-10-COMP1(1-6)	Soil	6/14/2005				X	
OU4-SS-10-COMP1(6-12)	Soil	6/14/2005				X	
OU4-SS-10-COMP1(12-18)	Soil	6/14/2005				X	
OU4-SS-10-COMP2(0-1)	Soil	6/14/2005				X	
OU4-SS-10-COMP2(1-6)	Soil	6/14/2005				X	
OU4-SS-10-COMP2(6-12)	Soil	6/14/2005				X	
OU4-SS-10-COMP2(12-18)	Soil	6/14/2005				X	
OU4-SS-10-COMP3(0-1)	Soil	6/14/2005				X	
OU4-SS-10-COMP3(1-6)	Soil	6/14/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-10-COMP3(6-12)	Soil	6/14/2005				X	
OU4-SS-10-COMP3(12-18)	Soil	6/14/2005				X	
OU4-SS-10-09(0-1)	Soil	6/14/2005				X	
OU4-SS-10-09(1-6)	Soil	6/14/2005				X	
OU4-SS-10-09(6-12)	Soil	6/14/2005				X	
OU4-SS-10-09(12-18)	Soil	6/14/2005				X	
OU4-SS-10-10(0-1)	Soil	6/14/2005				X	
OU4-SS-10-10(1-6)	Soil	6/14/2005				X	
OU4-SS-10-10(6-12)	Soil	6/14/2005				X	
OU4-SS-10-10(12-18)	Soil	6/14/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The following analytes were detected in the associated method blanks or equipment blanks: iron, lead, manganese, and zinc. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U).

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120% were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than 80% were qualified as estimated.
- Nondetect sample results associated with a calibration standard exhibiting a recovery less than 80% but greater than 50% were qualified as estimated.

4. Precision Measurement (seven replicates)

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-07-COMP1 (1-6). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Field duplicate was not analyzed with this SDG.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/14/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-061405	QC		QC
2	733	OU4-SS-EBLANK1-061405	QC		QC
3	733	OU4-SS-MBLANK1-061405	QC		QC
4	733	OU4-SS-CLPSTD1-061405	QC		QC
5	733	OU4-SS-07-COMP1(1-6)-1	QC		QC
6	733	OU4-SS-07-COMP1(1-6)-2	QC		QC
7	733	OU4-SS-07-COMP1(1-6)-3	QC		QC
8	733	OU4-SS-07-COMP1(1-6)-4	QC		QC
9	733	OU4-SS-07-COMP1(1-6)-5	QC		QC
10	733	OU4-SS-07-COMP1(1-6)-6	QC		QC
11	733	OU4-SS-07-COMP1(1-6)-7	QC		QC
12	733	OU4-SS-08-COMP1(0-1)	FS	08	D11
13	733	OU4-SS-08-COMP1(1-6)	FS	08	D11
14	733	OU4-SS-08-COMP1(6-12)	FS	08	D11
15	733	OU4-SS-08-COMP1(12-18)	FS	08	D11
16	733	OU4-SS-08-COMP2(0-1)	FS	08	D11
17	733	OU4-SS-08-COMP2(1-6)	FS	08	D11
18	733	OU4-SS-08-COMP2(6-12)	FS	08	D11
19	733	OU4-SS-08-COMP2(12-18)	FS	08	D11
20	733	OU4-SS-EBLANK2-061405	QC		QC
21	733	OU4-SS-MBLANK2-061405	QC		QC
22	733	OU4-SS-CLPSTD2-061405	QC		QC
23	733	OU4-SS-08-COMP3(0-1)	FS	08	D11
24	733	OU4-SS-08-COMP3(1-6)	FS	08	D11
25	733	OU4-SS-08-COMP3(6-12)	FS	08	D11
26	733	OU4-SS-08-COMP3(12-18)	FS	08	D11
27	733	OU4-SS-08-COMP4(0-1)	FS	08	D11
28	733	OU4-SS-08-COMP4(1-6)	FS	08	D11
29	733	OU4-SS-08-COMP4(6-12)	FS	08	D11
30	733	OU4-SS-08-COMP4(12-18)	FS	08	D11
31	733	OU4-SS-09-COMP1(0-1)	FS	09	S13
32	733	OU4-SS-09-COMP1(1-6)	FS	09	S13
33	733	OU4-SS-09-COMP1(6-12)	FS	09	S13
34	733	OU4-SS-09-COMP1(12-18)	FS	09	S13
35	733	OU4-SS-09-COMP2(0-1)	FS	09	S13
36	733	OU4-SS-09-COMP2(1-6)	FS	09	S13
37	733	OU4-SS-09-COMP2(6-12)	FS	09	S13

Electronic Log for 06/14/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-09-COMP2(12-18)	FS	09	S13
39	733	OU4-SS-09-COMP3(0-1)	FS	09	S13
40	733	OU4-SS-09-COMP3(1-6)	FS	09	S13
41	733	OU4-SS-09-COMP3(6-12)	FS	09	S13
42	733	OU4-SS-09-COMP3(12-18)	FS	09	S13
43	733	OU4-SS-EBLANK3-061405	QC		QC
44	733	OU4-SS-MBLANK3-061405	QC		QC
45	733	OU4-SS-CLPSTD3-061405	QC		QC
46	733	OU4-SS-09-COMP4(0-1)	FS	09	S13
47	733	OU4-SS-09-COMP4(1-6)	FS	09	S13
48	733	OU4-SS-09-COMP4(6-12)	FS	09	S13
49	733	OU4-SS-09-COMP4(12-18)	FS	09	S13
50	733	OU4-SS-09-COMP5(0-1)	FS	09	S13
51	733	OU4-SS-09-COMP5(1-6)	FS	09	S13
52	733	OU4-SS-09-COMP5(6-12)	FS	09	S13
53	733	OU4-SS-09-COMP5(12-18)	FS	09	S13
54	733	OU4-SS-10-COMP1(0-1)	FS	10	S21
55	733	OU4-SS-10-COMP1(1-6)	FS	10	S21
56	733	OU4-SS-10-COMP1(6-12)	FS	10	S21
57	733	OU4-SS-10-COMP1(12-18)	FS	10	S21
58	733	OU4-SS-10-COMP2(0-1)	FS	10	S21
59	733	OU4-SS-10-COMP2(1-6)	FS	10	S21
60	733	OU4-SS-10-COMP2(6-12)	FS	10	S21
61	733	OU4-SS-10-COMP2(12-18)	FS	10	S21
62	733	OU4-SS-EBLANK4-061405	QC		QC
63	733	OU4-SS-MBLANK4-061405	QC		QC
64	733	OU4-SS-CLPSTD4-061405	QC		QC
65	733	OU4-SS-10-COMP3(0-1)	FS	10	S21
66	733	OU4-SS-10-COMP3(1-6)	FS	10	S21
67	733	OU4-SS-10-COMP3(6-12)	FS	10	S21
68	733	OU4-SS-10-COMP3(12-18)	FS	10	S21
69	733	OU4-SS-10-09(0-1)	FS	10	S21
70	733	OU4-SS-STD2-061405	QC		QC
71	733	OU4-SS-10-09(1-6)	FS	10	S21
72	733	OU4-SS-10-09(6-12)	FS	10	S21
73	733	OU4-SS-10-09(12-18)	FS	10	S21
74	733	OU4-SS-10-10(0-1)	FS	10	S21

Electronic Log for 06/14/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-10-10(1-6)	FS	10	S21
76	733	OU4-SS-10-10(6-12)	FS	10	S21
77	733	OU4-SS-10-10(12-18)	FS	10	S21
78	733	OU4-SS-EBLANK5-061405	QC		QC
79	733	OU4-SS-MBLANK5-061405	QC		QC
80	733	OU4-SS-CLPSTD5-061405	QC		QC
81	733	OU4-SS-STD3-061405	QC		QC
82	733	OU4-SS-STD4-061405	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-COMP1(0-1) 0 - 1 06/08/05	OU4-SS-08-COMP1(1-6) 1 - 6 06/08/05	OU4-SS-08-COMP1(6-12) 6 - 12 06/08/05	OU4-SS-08-COMP1(12-18) 12 - 18 06/08/05	OU4-SS-08-COMP2(0-1) 0 - 1 06/08/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	mg/kg	13.06 J	8.31 U	9.38 U	6.67 U	19.32 J
Barium	mg/kg	542.35 J	521.77 J	989.2 J	483.53 J	1171.71 J
Cadmium	mg/kg	51.03 J	35.89 U	55.03 J	35.48 U	93.04 J
Chromium	mg/kg	98.57 U	103.07 U	109.31 U	102.33 U	112.73 U
Cobalt	mg/kg	98.69 U	102.23 U	107.67 U	94.71 U	104.45 U
Copper	mg/kg	36.72 J	25.96 J	20.28 J	14.77 J	57.8 J
Iron	mg/kg	16281.28 U	16880.17 U	18329.49 U	14991 U	17611.15 U
Lead	mg/kg	212.52 J	136.06 J	166.8 J	76.94 J	307.8 J
Manganese	mg/kg	417.44 J	384.56 UJ	491.68 J	411.2 J	469.28 J
Mercury	mg/kg	9.75 U J	8.59 U	9.89 U J	8.29 U J	10.81 U J
Nickel	mg/kg	21.89 U	22.02 U	23.36 U	21.23 U	23.82 U
Selenium	mg/kg	2.62 U	2.67 U	2.63 U	2.5 U	2.88 U
Silver	mg/kg	24.59 U	24.98 U	25.48 U	24.79 U	25.13 U
Zinc	mg/kg	3887.72 J	2248.59 J	2600.86 J	1334.56 J	5422.95 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-COMP2(1-6) 1 - 6 06/08/05	OU4-SS-08-COMP2(6-12) 6 - 12 06/08/05	OU4-SS-08-COMP2(12-18) 12 - 18 06/08/05	OU4-SS-08-COMP3(0-1) 0 - 1 06/08/05	OU4-SS-08-COMP3(1-6) 1 - 6 06/08/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	13.1 J	8.3 U	8.4 J	23.71 J	26.77 J
Barium	mg/kg	2084.34 J	700.43 J	691.21 J	4195.44 J	4209.33 J
Cadmium	mg/kg	50.41 J	36.35 U	40.04 J	130.35 J	108.9 J
Chromium	mg/kg	120.1 U	109.12 U	102.8 U	138.68 U	138.21 U
Cobalt	mg/kg	117.72 U	111.01 U	101.73 U	131.67 U	134.21 U
Copper	mg/kg	46.78 J	19.28 J	12.52 U	123.26 J	96.54 J
Iron	mg/kg	21510.18 U	19639.32 U	17806.25 U	25421.39	27119.5
Lead	mg/kg	228.44 J	123.59 J	108.09 J	703.74 J	573.69 J
Manganese	mg/kg	448.99 J	492.22 J	432.08 UJ	610.58 UJ	542.01 UJ
Mercury	mg/kg	10.35 U J	9.47 U J	8.29 U J	14.27 U J	13.64 U
Nickel	mg/kg	25.46 U	23.36 U	22.52 U	28.1 U	26.7 U
Selenium	mg/kg	3.06 U	2.51 U	2.47 U	3.67 U	3.39 U
Silver	mg/kg	26.24 U	25.43 U	24.48 U	27.04 U J	26.44 U J
Zinc	mg/kg	4361.11 J	2359.72 J	1317.79 J	10616.25 J	9579.98 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-COMP3(6-12) 6 - 12 06/08/05	OU4-SS-08-COMP3(12-18) 12 - 18 06/08/05	OU4-SS-08-COMP4(0-1) 0 - 1 06/08/05	OU4-SS-08-COMP4(1-6) 1 - 6 06/08/05	OU4-SS-08-COMP4(6-12) 6 - 12 06/08/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	9.48 U	5.58 U	12.88 J	11.25 U	12.35 J
Barium	mg/kg	922.49 J	432.68 J	604.72 J	1341.94 J	1092.51 J
Cadmium	mg/kg	35.22 U	35.67 U	86.88 J	77.64 J	59.35 J
Chromium	mg/kg	104.55 U	103.52 U	102.26 U	109.41 U	106.39 U
Cobalt	mg/kg	101 U	99.51 U	103.24 U	106.87 U	102.44 U
Copper	mg/kg	14.67 J	12.31 U	40.12 J	44.78 J	13.55 U
Iron	mg/kg	17289.73 U	16656.54 U	17775.15 U	18476.34 U	17721.49 U
Lead	mg/kg	181.63 J	41.17 U	277.28 J	262.47 J	133.95 J
Manganese	mg/kg	481.02 UJ	424.38 UJ	599.41 UJ	440.84 UJ	399.83 UJ
Mercury	mg/kg	9.59 U J	7.57 U J	10.04 U J	9.78 U J	9.32 U J
Nickel	mg/kg	21.67 U	21.66 U	22.59 U	23.05 U	22.13 U
Selenium	mg/kg	2.58 U	2.47 U	2.8 U	2.78 U	2.66 U
Silver	mg/kg	24.68 U J	24.82 U J	24.37 U J	25.18 U J	24.93 U J
Zinc	mg/kg	2630.83 J	700.13 J	3984.38 J	3390.71 J	2368.67 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-COMP4(12-18) 12 - 18 06/08/05	OU4-SS-09-COMP1(0-1) 0 - 1 06/08/05	OU4-SS-09-COMP1(1-6) 1 - 6 06/08/05	OU4-SS-09-COMP1(6-12) 6 - 12 06/08/05	OU4-SS-09-COMP1(12-18) 12 - 18 06/08/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	17.03 J	13.86 J	23.41 J	10.84 J	6.9 J
Barium	mg/kg	1521.83 J	413.1 J	1274.93 J	392.81 J	267.32 J
Cadmium	mg/kg	42.41 J	38.05 J	41.23 J	35.43 U	34.95 U
Chromium	mg/kg	111.75 U	102.47 U	123.24 U	99.41 U	95.11 U
Cobalt	mg/kg	104.12 U	108.85 U	141.11 U	110.36 U	94.76 U
Copper	mg/kg	15.95 J	26.29 J	62.46 J	16.91 J	11.57 U
Iron	mg/kg	18233.25 U	21066.81 U	31755.65	21201.64 U	15546.8 U
Lead	mg/kg	121.08 J	273.01 J	315.58 J	92.21 J	30.06 U
Manganese	mg/kg	368.27 UJ	532.4 UJ	649.47 J	487.66 UJ	526.82 UJ
Mercury	mg/kg	9.1 U J	9.46 U J	10.81 U J	8.44 U J	7.04 U J
Nickel	mg/kg	21.46 U	22.36 U	27.77 U	22.04 U	19.91 U
Selenium	mg/kg	2.69 U	2.55 U	3 U	2.53 U	2.36 U
Silver	mg/kg	25.47 U J	23.92 U J	26.38 U J	24.84 U J	24.21 U J
Zinc	mg/kg	2337.1 J	2828.22 J	3158.28 J	574.76 J	196.45 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-COMP2(0-1) 0 - 1 06/08/05	OU4-SS-09-COMP2(1-6) 1 - 6 06/08/05	OU4-SS-09-COMP2(6-12) 6 - 12 06/08/05	OU4-SS-09-COMP2(12-18) 12 - 18 06/08/05	OU4-SS-09-COMP3(0-1) 0 - 1 06/08/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	13.45 U	11.65 U	9.57 J	4.58 U	10.55 U
Barium	mg/kg	846.22 J	1265.47 J	404.22 J	256.15 U J	945.62 J
Cadmium	mg/kg	72.29 J	56.31 J	35.06 U	34.84 U	51.43 J
Chromium	mg/kg	114.2 U	118.46 U	98.58 U	94.66 U	105.16 U
Cobalt	mg/kg	119.7 U	128.32 U	96.65 U	91.3 U	103.21 U
Copper	mg/kg	59.94 J	58.97 J	12.81 U	11.65 U	38.1 J
Iron	mg/kg	23066.04	26911.02	16284.12 U	14654.71 U	18296.07 U
Lead	mg/kg	376.74 J	270.48 J	83.89 J	20.63 UJ	236.15 J
Manganese	mg/kg	576.94 UJ	518.29 UJ	443.62 UJ	288.02 UJ	435.27 UJ
Mercury	mg/kg	10.44 U J	10.63 U J	8.26 U J	7.36 U J	9.55 U J
Nickel	mg/kg	23.99 U	39 J	25.92 JQ	20.09 U	22.28 U
Selenium	mg/kg	2.9 U	2.94 U	2.44 U	2.34 U	2.62 U
Silver	mg/kg	25.31 U J	25.91 U J	24.48 U J	24.37 U J	24.53 U J
Zinc	mg/kg	2756.66 J	2662.42 J	913.49 J	149.44 J	2745.26 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-COMP3(1-6) 1 - 6 06/08/05	OU4-SS-09-COMP3(6-12) 6 - 12 06/08/05	OU4-SS-09-COMP3(12-18) 12 - 18 06/08/05	OU4-SS-09-COMP4(0-1) 0 - 1 06/09/05	OU4-SS-09-COMP4(1-6) 1 - 6 06/09/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	26.08 J	14.26 J	6.04 J	13.95 J	18.48 J
Barium	mg/kg	2079.73 J	622.47 J	391.65 J	715.09 J	972.65 J
Cadmium	mg/kg	62.69 J	35.66 U	35.21 U	59.05	61.07
Chromium	mg/kg	121.34 U	103.75 U	93.77 U	107.46 U	105.78 U
Cobalt	mg/kg	118.53 U	108.07 U	96.32 U	110.17 U	103.13 U
Copper	mg/kg	54.66 J	34.58 J	14.38 J	31.74 J	33.22 J
Iron	mg/kg	23105	20047.77 U	16148.96 U	20663.33 U	17853.46 U
Lead	mg/kg	378.87 J	189.7 J	28.58 U	196.25 J	250.13 J
Manganese	mg/kg	461.49 UJ	500.66 UJ	334.23 UJ	587.7 UJ	557.97 UJ
Mercury	mg/kg	10.72 U J	9.88 JQ	7.49 U J	8.73 U J	9.2 U J
Nickel	mg/kg	26.63 J	22.78 U	20.39 U	23.09 U	23.83 JQ
Selenium	mg/kg	3.05 U	2.65 U	2.42 U	2.66 U	2.87 U
Silver	mg/kg	25.85 U J	24.93 U J	24.42 U J	24.83 U J	24.94 U J
Zinc	mg/kg	4201 J	1659.69 J	233.47 J	1946.76	2874.89

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-COMP4(6-12) 6 - 12 06/09/05	OU4-SS-09-COMP4(12-18) 12 - 18 06/09/05	OU4-SS-09-COMP5(0-1) 0 - 1 06/09/05	OU4-SS-09-COMP5(1-6) 1 - 6 06/09/05	OU4-SS-09-COMP5(6-12) 6 - 12 06/09/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	10.5 J	5.88 J	10.69 U J	17.28 J	10.72 J
Barium	mg/kg	552.79 J	247.6 U J	504.99 J	1469.3 J	681.93 J
Cadmium	mg/kg	35.6 U	34.79 U	35.07 U	93.99	35.49 U
Chromium	mg/kg	103.2 U	93.38 U	101.59 U	110.41 U	103.08 U
Cobalt	mg/kg	97.23 U	89.49 U	100.79 U	113.73 U	103.28 U
Copper	mg/kg	18.56 J	13.64 J	28.63 J	51.22 J	34.08 J
Iron	mg/kg	16752.92 U	14367.92 U	17341.27 U	21829.88 U	18537.92 U
Lead	mg/kg	103.46 J	19.45 UJ	244.97 J	395.35 J	173.32 J
Manganese	mg/kg	912.59 J	506.15 UJ	447.89 UJ	721.59 UJ	540.23 UJ
Mercury	mg/kg	8.58 U J	7.16 U J	8.57 U J	10.13 U J	8.62 U J
Nickel	mg/kg	35.35 J	19.87 U	21.61 U	24.57 U	22.09 U
Selenium	mg/kg	2.47 U	2.32 U	2.72 U	3.02 U	2.63 U
Silver	mg/kg	24.88 U J	24.2 U J	24.32 U J	24.8 U J	24.58 U J
Zinc	mg/kg	1509.97	124.59	1828.08	3268.4	1640.86

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-COMP5(12-18) 12 - 18 06/09/05	OU4-SS-10-09(0-1) 0 - 1 06/14/05	OU4-SS-10-09(1-6) 1 - 6 06/14/05	OU4-SS-10-09(6-12) 6 - 12 06/14/05	OU4-SS-10-09(12-18) 12 - 18 06/14/05	OU4-SS-10-10(0-1) 0 - 1 06/14/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	5.64 J	6.76 U	7.79 U	11.39 U	4.77 J	8.7 J
Barium	mg/kg	270.76 J	284.4 U J	370.6 J	617.16 J	233.02 U J	263.61 U J
Cadmium	mg/kg	34.56 U	37.99 U	34.05 U	36.95	44.77	35.5 U
Chromium	mg/kg	90.08 U	113.38 U	93.66 U	99.61 U	85.2 U	107.2 U
Cobalt	mg/kg	83.48 U	119.06 U	86.63 U	96.69 U	79.77 U	113.97 U
Copper	mg/kg	11.65 U	33.61 J	16.8 J	16.12 J	11.59 U	23.66 J
Iron	mg/kg	12400.62 U	20377.56 U	13696.67 U	16233.94 U	11378.43 U	21713.54 U
Lead	mg/kg	21.89 U	62.75	128.37	286.1	26.11 U	44.19
Manganese	mg/kg	373.95 U J	336.32 U J	506.22 U J	783.68 J	720.26 U J	431.32 U J
Mercury	mg/kg	7.42 U J	8.33 U J	8.4 U J	9.18 U J	7.37 U J	8.19 U J
Nickel	mg/kg	19.1 U	25.5 U	20.09 U	21.61 U	18.82 U	35.65 J
Selenium	mg/kg	2.34 U	2.65 U	2.43 U	2.65 U	2.2 U	2.46 U
Silver	mg/kg	23.94 U J	26.54 U J	23.71 U J	24.65 U J	23.42 U J	24.86 U J
Zinc	mg/kg	314.75	302.17	1280.46	2468.09	782.48	193.56

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-10-10(1-6) 1 - 6 06/09/05	OU4-SS-10-10(6-12) 6 - 12 06/14/05	OU4-SS-10-10(12-18) 12 - 18 06/14/05	OU4-SS-10-COMP1(0-1) 0 - 1 06/09/05	OU4-SS-10-COMP1(1-6) 1 - 6 06/09/05	OU4-SS-10-COMP1(6-12) 6 - 12 06/09/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.68 U	9.65 J	4.03 U	17.12 J	18.48 J	4.6 U
Barium	mg/kg	245.9 U J	329.44 J	221.16 U J	1010.4 J	939.9 J	238.69 U J
Cadmium	mg/kg	34.44 U	47.83	33.33 U	36.14	62.3	34.44 U
Chromium	mg/kg	94.87 U	94.65 U	87.64 U	106.77 U	111.83 U	90.38 U
Cobalt	mg/kg	92.72 U	80.43 U	74.21 U	110.96 U	113.15 U	81.15 U
Copper	mg/kg	42.51 J	11.96 U	10.51 U	31.59 J	38.4 J	11.64 U
Iron	mg/kg	15208.42 U	12199.62 U	10340.52 U	21046.74 U	22643.37 U	11759.88 U
Lead	mg/kg	258.21	97.73	14.3 U	426.39 J	353.7 J	24.59 U
Manganese	mg/kg	471.45 U J	496.59 U J	681 U J	852.76 J	1049.72 J	724.01 U J
Mercury	mg/kg	8.01 U J	7.18 U J	7.31 U J	10.05 U J	10.41 U J	6.83 U J
Nickel	mg/kg	20.28 U	19.19 U	17.78 U	28.55 J	23.15 U	19.61 U
Selenium	mg/kg	2.67 U	2.31 U	2.16 U	2.94 U	2.98 U	2.28 U
Silver	mg/kg	24.02 U J	23.76 U J	23.11 U J	24.67 U J	25.11 U J	23.97 U J
Zinc	mg/kg	843.49	605.15	557.03	3593.02	3879.96	376.41

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-10-COMP1(12-18) 12 - 18 06/09/05	OU4-SS-10-COMP2(0-1) 0 - 1 06/09/05	OU4-SS-10-COMP2(1-6) 1 - 6 06/09/05	OU4-SS-10-COMP2(6-12) 6 - 12 06/09/05	OU4-SS-10-COMP2(12-18) 12 - 18 06/09/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	6.06 J	31.38 J	24.51 J	10.25 J	4.74 U
Barium	mg/kg	242.81 U J	917.77 J	1192.32 J	308.99 J	232.09 U J
Cadmium	mg/kg	34.47 U	67.25	90.03	42.1	34.07 U
Chromium	mg/kg	91.2 U	110.47 U	108.08 U	91.96 U	84.83 U
Cobalt	mg/kg	79.6 U	105.79 U	101.86 U	91.23 U	79.67 U
Copper	mg/kg	11.26 U	46.78 J	64.84 J	12.76 U	11.17 U
Iron	mg/kg	11551.08 U	18725.52 U	17898.96 U	15180.37 U	11170.9 U
Lead	mg/kg	10.76 U	559.64 J	515.39 J	134.57 J	27.92 U
Manganese	mg/kg	474.75 U J	718.85 U J	649.25 U J	738.78 U J	433.64 U J
Mercury	mg/kg	6.86 U J	10.48 U J	10.64 U J	8.26 U J	7.06 U J
Nickel	mg/kg	18.76 U	22.8 U	22.54 U	19.91 U	18.4 U
Selenium	mg/kg	2.15 U	3.13 U	3 U	2.46 U	2.29 U
Silver	mg/kg	23.93 U J	25.09 U J	24.8 U J	24 U J	23.67 U J
Zinc	mg/kg	41.02 U	3738.27	3568.58	1828.37	577.18

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-10-COMP3(0-1) 0 - 1 06/09/05	OU4-SS-10-COMP3(1-6) 1 - 6 06/09/05	OU4-SS-10-COMP3(6-12) 6 - 12 06/09/05	OU4-SS-10-COMP3(12-18) 12 - 18 06/09/05
Metals - XRF (USEPA SW-846 62(					
Arsenic	mg/kg	10.23 J	13.61 U	8.85 U	4.09 U
Barium	mg/kg	361.58 J	754.07 J	313.31 J	224.93 U J
Cadmium	mg/kg	45.17	48.64	35.54 U	34.5 U
Chromium	mg/kg	96.23 U	103.9 U	98.03 U	88.65 U
Cobalt	mg/kg	100.35 U	104.13 U	89.7 U	77.72 U
Copper	mg/kg	36.9 J	38.08 J	12.19 U	11.06 U
Iron	mg/kg	18523.14 U	19246.89 U	13220.77 U	10579.64 U
Lead	mg/kg	232.55	427.83	156.26	13.62 U
Manganese	mg/kg	505.41 J	809.85 J	744.9 J	457.75 UJ
Mercury	mg/kg	7.99 U J	10.28 U J	8.04 U J	7.03 U J
Nickel	mg/kg	22.68 JQ	22.33 U	21.34 U	18.49 U
Selenium	mg/kg	2.46 U	2.91 U	2.59 U	2.19 U
Silver	mg/kg	23.63 U J	24.47 U J	24.89 U J	23.9 U J
Zinc	mg/kg	1448.52	3617.66	1449.24	227.31

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-061405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	223.08	208	107.25	Acceptable
Barium	645.6	879	73.45	Not Acceptable
Cadmium	147.34	141	104.50	Acceptable
Chromium	248.89	132	188.55	Not Acceptable
Cobalt	281.29	131	214.73	Not Acceptable
Copper	109.82	98.8	111.15	Acceptable
Iron	22943.47	24400	94.03	Acceptable
Lead	212.68	179	118.82	Acceptable
Manganese	434.85	591	73.58	Not Acceptable
Mercury	88.36	11.2	788.93	Not Acceptable
Nickel	102.61	80.1	128.10	Not Acceptable
Selenium	212.48	181	117.39	Acceptable
Silver	126.34	147	85.95	Acceptable
Zinc	299.65	263	113.94	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-061405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	229.78	208	110.47	Acceptable
Barium	578.11	879	65.77	Not Acceptable
Cadmium	175.01	141	124.12	Not Acceptable
Chromium	267.46	132	202.62	Not Acceptable
Cobalt	194.71	131	148.63	Not Acceptable
Copper	126.09	98.8	127.62	Not Acceptable
Iron	20388.6	24400	83.56	Acceptable
Lead	215.78	179	120.55	Not Acceptable
Manganese	430.53	591	72.85	Not Acceptable
Mercury	90.2	11.2	805.36	Not Acceptable
Nickel	92.95	80.1	116.04	Acceptable
Selenium	211.62	181	116.92	Acceptable
Silver	119.05	147	80.99	Acceptable
Zinc	320	263	121.67	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-061405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	225.25	208	108.29	Acceptable
Barium	585.79	879	66.64	Not Acceptable
Cadmium	147.59	141	104.67	Acceptable
Chromium	228.33	132	172.98	Not Acceptable
Cobalt	196.51	131	150.01	Not Acceptable
Copper	120.9	98.8	122.37	Not Acceptable
Iron	20299.82	24400	83.20	Acceptable
Lead	218.26	179	121.93	Not Acceptable
Manganese	429.87	591	72.74	Not Acceptable
Mercury	92.74	11.2	828.04	Not Acceptable
Nickel	101.46	80.1	126.67	Not Acceptable
Selenium	204.78	181	113.14	Acceptable
Silver	103.01	147	70.07	Not Acceptable
Zinc	309.46	263	117.67	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-061405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	227.61	208	109.43	Acceptable
Barium	680.85	879	77.46	Not Acceptable
Cadmium	142.41	141	101.00	Acceptable
Chromium	243.45	132	184.43	Not Acceptable
Cobalt	144.25	131	110.11	Acceptable
Copper	119.99	98.8	121.45	Not Acceptable
Iron	21377.19	24400	87.61	Acceptable
Lead	214.42	179	119.79	Acceptable
Manganese	431.54	591	73.02	Not Acceptable
Mercury	85.54	11.2	763.75	Not Acceptable
Nickel	103.53	80.1	129.25	Not Acceptable
Selenium	208.75	181	115.33	Acceptable
Silver	111.84	147	76.08	Not Acceptable
Zinc	307.5	263	116.92	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD5-061405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	223.64	208	107.52	Acceptable
Barium	684.6	879	77.88	Not Acceptable
Cadmium	161.6	141	114.61	Acceptable
Chromium	142.52	132	107.97	Acceptable
Cobalt	196.19	131	149.76	Not Acceptable
Copper	120.31	98.8	121.77	Not Acceptable
Iron	19836.83	24400	81.30	Acceptable
Lead	212.25	179	118.58	Acceptable
Manganese	436.15	591	73.80	Not Acceptable
Mercury	86.72	11.2	774.29	Not Acceptable
Nickel	91.63	80.1	114.39	Acceptable
Selenium	207.9	181	114.86	Acceptable
Silver	116.26	147	79.09	Not Acceptable
Zinc	307.16	263	116.79	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS						
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-061405 06/14/05	OU4-SS-MBLANK2-061405 06/14/05	OU4-SS-MBLANK3-061405 06/14/05	OU4-SS-MBLANK4-061405 06/14/05	OU4-SS-MBLANK5-061405 06/14/05
Metals - XRF						
Iron	mg/kg	**3868.99**	**4514.82**	**3933.18**	**4545.45**	**3863.04**
Lead	mg/kg	**10**	**6.92**	**8.54**	**5.85**	**5.4**
Manganese	mg/kg	**70.6**	**79.76**	**123.28**	**153.47**	**136.84**
Zinc	mg/kg	**10.58**	**8.6**	**11.37**	**11.32**	**9.29**

Note:
Only detected analytes on specified day of analysis are summarized.

EQUIPMENT BLANKS						
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1-061405 06/14/05	OU4-SS-EBLANK2-061405 06/14/05	OU4-SS-EBLANK3-061405 06/14/05	OU4-SS-EBLANK4-061405 06/14/05	OU4-SS-EBLANK5-061405 06/14/05
Analytes associated with the equipment blanks were not detected.						

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-07-COMP1(1-6) 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-1 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-2 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-3 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-4 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-5 1 - 6 6/7/05	OU4-SS-07-COMP1(1-6)-6 1 - 6 6/7/05			
Metals - XRF (USEPA SW-846 6200)												
Non-Detects Adjusted to Full Detection Limit Value										**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8 6	24.77	24 52	30.37	25.65	16.56	18.96	15 31	4.964737	23.47167	21.15204
Barium	mg/kg	11000	3782.47	3591 9	3726 03	3600.87	3488 69	3951.52	3555.31	165.127	3690 247	4.474688
Cadmium	mg/kg	78	56.63	82 6	52.04	56.31	74.24	73.58	58.71	12.46939	65 9	18 92169
Chromium	mg/kg	780	135.77	134.9	132.34	132 92	134.26	134.45	168.04	1.270176	134.1067	0.947138
Cobalt	mg/kg	9400	127.29	125.37	123.78	124.45	125.07	124 55	126.04	1.211276	125.085	0.968362
Copper	mg/kg	6200	77.25	77 93	64.13	72.06	77.91	71.56	76.4	5.417847	73.47333	7.373896
Iron	mg/kg	46000	24316.55	23676 09	23774.81	23718.42	23907.81	23571.34	23714.3	264.1353	23827 5	1.108531
Lead	mg/kg	240	472.08	451.56	456.04	462.77	474.67	455 53	462.4	9.476644	462.1083	2.050741
Manganese	mg/kg	3600	709.35	572.18	587.35	603.79	534.4	519 63	580.09	67.48774	587.7833	11.48174
Mercury	mg/kg	15.6	12.39	11 55	11.72	11 8	11.61	11.4	11 64	0.344949	11.745	2.936988
Nickel	mg/kg	3200	27.28	26 04	33.68	26.69	26.39	26.11	26 59	2.965019	27.69833	10.70468
Selenium	mg/kg	780	3 22	3.3	3 23	3.24	3.35	3.34	3 2	0.057619	3.28	1.75669
Silver	mg/kg	780	27.13	27	27.02	26.84	27.04	26.79	26 94	0.128996	26.97	0.478295
Zinc	mg/kg	46000	4839.15	4665.48	4676 37	4593.58	4675.46	4620.11	4670.62	85.57149	4678 358	1.829092

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF061505

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF061505 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-11-COMP1(0-1)	Soil	6/15/2005				X	
OU4-SS-11-COMP1(1-6)	Soil	6/15/2005				X	
OU4-SS-11-COMP1(6-12)	Soil	6/15/2005				X	
OU4-SS-11-COMP1(12-18)	Soil	6/15/2005				X	
OU4-SS-11-COMP2(0-1)	Soil	6/15/2005				X	
OU4-SS-11-COMP2(1-6)	Soil	6/15/2005				X	
OU4-SS-11-COMP2(6-12)	Soil	6/15/2005				X	
OU4-SS-11-COMP2(12-18)	Soil	6/15/2005				X	
OU4-SS-11-COMP2(12-18)-DUP	Soil	6/15/2005				X	
OU4-SS-11-COMP3(0-1)	Soil	6/15/2005				X	
OU4-SS-11-COMP3(1-6)	Soil	6/15/2005				X	
OU4-SS-11-COMP3(6-12)	Soil	6/15/2005				X	
OU4-SS-11-COMP3(12-18)	Soil	6/15/2005				X	
OU4-SS-12-COMP1(0-1)	Soil	6/15/2005				X	
OU4-SS-12-COMP1(1-6)	Soil	6/15/2005				X	
OU4-SS-12-COMP1(6-12)	Soil	6/15/2005				X	
OU4-SS-12-COMP1(12-18)	Soil	6/15/2005				X	
OU4-SS-12-COMP2(0-1)	Soil	6/15/2005				X	
OU4-SS-12-COMP2(1-6)	Soil	6/15/2005				X	
OU4-SS-12-COMP2(6-12)	Soil	6/15/2005				X	
OU4-SS-12-COMP2(12-18)	Soil	6/15/2005				X	
OU4-SS-12-COMP3(0-1)	Soil	6/15/2005				X	
OU4-SS-12-COMP3(1-6)	Soil	6/15/2005				X	
OU4-SS-12-COMP3(6-12)	Soil	6/15/2005				X	
OU4-SS-12-COMP3(12-18)	Soil	6/15/2005				X	
OU4-SS-12-COMP3(12-18)-DUP	Soil	6/15/2005				X	
OU4-SS-13-COMP1(0-1)	Soil	6/15/2005				X	
OU4-SS-13-COMP1(1-6)	Soil	6/15/2005				X	
OU4-SS-13-COMP1(6-12)	Soil	6/15/2005				X	
OU4-SS-13-COMP1(12-18)	Soil	6/15/2005				X	
OU4-SS-13-COMP2(0-1)	Soil	6/15/2005				X	
OU4-SS-13-COMP2(6-12)	Soil	6/15/2005				X	
OU4-SS-13-COMP2(1-6)	Soil	6/15/2005				X	
OU4-SS-13-COMP2(12-18)	Soil	6/15/2005				X	
OU4-SS-13-COMP3(0-1)	Soil	6/15/2005				X	
OU4-SS-13-COMP3(1-6)	Soil	6/15/2005				X	
OU4-SS-13-COMP3(6-12)	Soil	6/15/2005				X	
OU4-SS-13-COMP3(12-18)	Soil	6/15/2005				X	
OU4-SS-13-COMP3(12-18)-DUP	Soil	6/15/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The following analytes were detected in the associated method blanks or equipment blanks: iron, lead, manganese, and zinc. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U).

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120% were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than 80% were qualified as estimated.
- Nondetect sample results associated with a calibration standard exhibiting a recovery less than 80% but greater than 50% were qualified as estimated.

4. Precision Measurement (seven replicates)

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-08-COMP3 (0-1). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-11-COMP2 (12-18)/ OU4-SS-11-COMP2 (12-18)-DUP	Arsenic	14.73		15.38		4.3
	Barium	693.22		705.68		1.8
	Cadmium	36.68	U	36.61	U	AC
	Chromium	107.71	U	111.87	U	AC
	Cobalt	125.69		115.51	U	8.4
	Copper	29.88		25.36		16.4
	Iron	21912.83		21777.97		0.6
	Lead	187.33		192.87		2.9
	Manganese	449.88		420.25		6.8
	Mercury	9.46	U	9.01	U	4.9
	Nickel	22.74	U	24.15	U	6.0
	Selenium	2.77	U	2.77	U	0.0
	Silver	25.6	U	25.64	U	0.2
	Zinc	1849.23		1800.7		2.7
OU4-SS-12-COMP3 (12-18)/OU4-SS-12-COMP3 (12-18)-DUP	Arsenic	4.36	U	4.2	U	AC
	Barium	224.58	U	213.82	U	AC
	Cadmium	33.92	U	33.8	U	AC
	Chromium	90.72	U	87.16	U	AC
	Cobalt	73.38	U	73.84	U	AC
	Copper	10.91	U	10.43	U	AC
	Iron	9873.83		9758.81		1.2
	Lead	20.38		19.84		2.7
	Manganese	392.83		367.71		6.6
	Mercury	6.62	U	6.85	U	AC
OU4-SS-12-COMP3 (12-18)/OU4-SS-12-COMP3 (12-18)-DUP	Nickel	17.43	U	18.14	U	AC
	Selenium	2.13	U	2.15	U	AC
	Silver	23.56	U	23.56	U	AC
	Zinc	301.36		309.28		2.6

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-13-COMP3 (12-18)/ OU4-SS-13-COMP3 (12-18)-DUP	Arsenic	10		10.59		5.7
	Barium	289.13		433.18		39.9
	Cadmium	53.57		36.04	U	AC
	Chromium	101.36	U	105.15	U	AC
	Cobalt	105.83	U	105.5	U	AC
	Copper	12.81	U	15.81		AC
	Iron	18270.39		18453.19		1.0
	Lead	132.93		128.75		3.2
	Manganese	453.54		460.84		1.6
	Mercury	10.58		8.28	U	AC
	Nickel	22.22	U	22.52	U	AC
	Selenium	2.62	U	2.53	U	AC
	Silver	25.05	U	25.16	U	AC
	Zinc	497.89		495.79		0.4

ND not detected.
AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/15/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-FAIL-061505	QC		QC
2	733	OU4-SS-STD2-061505	QC		QC
3	733	OU4-SS-EBLANK1-061505	QC		QC
4	733	OU4-SS-MBLANK1-061505	QC		QC
5	733	OU4-SS-CLPSTD1-061505	QC		QC
6	733	OU4-SS-08-COMP3(0-1)-1	QC		QC
7	733	OU4-SS-08-COMP3(0-1)-2	QC		QC
8	733	OU4-SS-08-COMP3(0-1)-3	QC		QC
9	733	OU4-SS-08-COMP3(0-1)-4	QC		QC
10	733	OU4-SS-08-COMP3(0-1)-5	QC		QC
11	733	OU4-SS-08-COMP3(0-1)-6	QC		QC
12	733	OU4-SS-08-COMP3(0-1)-7	QC		QC
13	733	OU4-SS-11-COMP1(0-1)	FS	11	D16
14	733	OU4-SS-11-COMP1(1-6)	FS	11	D16
15	733	OU4-SS-11-COMP1(6-12)	FS	11	D16
16	733	OU4-SS-11-COMP1(12-18)	FS	11	D16
17	733	OU4-SS-11-COMP2(0-1)	FS	11	D16
18	733	OU4-SS-11-COMP2(1-6)	FS	11	D16
19	733	OU4-SS-11-COMP2(6-12)	FS	11	D16
20	733	OU4-SS-11-COMP2(12-18)	FS	11	D16
21	733	OU4-SS-11-COMP2(12-18)-DU	QC		QC
22	733	OU4-SS-EBLANK2-061505	QC		QC
23	733	OU4-SS-MBLANK2-061505	QC		QC
24	733	OU4-SS-CLPSTD2-061505	QC		QC
25	733	OU4-SS-11-COMP3(0-1)	FS	11	D16
26	733	OU4-SS-11-COMP3(1-6)	FS	11	D16
27	733	OU4-SS-11-COMP3(6-12)	FS	11	D16
28	733	OU4-SS-11-COMP3(12-18)	FS	11	D16
29	733	OU4-SS-12-COMP1(0-1)	FS	12	S19
30	733	OU4-SS-12-COMP1(1-6)	FS	12	S19
31	733	OU4-SS-12-COMP1(6-12)	FS	12	S19
32	733	OU4-SS-12-COMP1(12-18)	FS	12	S19
33	733	OU4-SS-12-COMP2(0-1)	FS	12	S19
34	733	OU4-SS-12-COMP2(1-6)	FS	12	S19
35	733	OU4-SS-12-COMP2(6-12)	FS	12	S19
36	733	OU4-SS-12-COMP2(12-18)	FS	12	S19
37	733	OU4-SS-12-COMP3(0-1)	FS	12	S19

Electronic Log for 06/15/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-12-COMP3(1-6)	FS	12	S19
39	733	OU4-SS-12-COMP3(6-12)	FS	12	S19
40	733	OU4-SS-12-COMP3(12-18)	FS	12	S19
41	733	OU4-SS-12-COMP3(12-18)-DU	QC		QC
42	733	OU4-SS-EBLANK3-061505	QC		QC
43	733	OU4-SS-MBLANK3-061505	QC		QC
44	733	OU4-SS-CLPSTD3-061505	QC		QC
45	733	OU4-SS-13-COMP1(0-1)	FS	13	S02
46	733	OU4-SS-13-COMP1(1-6)	FS	13	S02
47	733	OU4-SS-13-COMP1(6-12)	FS	13	S02
48	733	OU4-SS-13-COMP1(12-18)	FS	13	S02
49	733	OU4-SS-13-COMP2(0-1)	FS	13	S02
50	733	OU4-SS-13-COMP2(6-12)	FS	13	S02
51	733	OU4-SS-13-COMP2(1-6)	FS	13	S02
52	733	OU4-SS-13-COMP2(12-18)	FS	13	S02
53	733	OU4-SS-13-COMP3(0-1)	FS	13	S02
54	733	OU4-SS-13-COMP3(1-6)	FS	13	S02
55	733	OU4-SS-13-COMP3(6-12)	FS	13	S02
56	733	OU4-SS-13-COMP3(12-18)	FS	13	S02
57	733	OU4-SS-13-COMP3(12-18)-DU	QC		QC
58	733	OU4-SS-EBLANK4-061505	QC		QC
59	733	OU4-SS-MBLANK4-061505	QC		QC
60	733	OU4-SS-CLPSTD4-061505	QC		QC
61	733	OU4-SS-STD2-FAIL-061505	QC		QC
62	733	OU4-SS-STD3-061505	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-COMP1(0-1) 0 - 1 06/09/05	OU4-SS-11-COMP1(1-6) 1 - 6 06/09/05	OU4-SS-11-COMP1(6-12) 6 - 12 06/09/05	OU4-SS-11-COMP1(12-18) 12 - 18 06/09/05	OU4-SS-11-COMP2(0-1) 0 - 1 06/09/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	mg/kg	20.68 J	21.82 J	17.53 J	17.19 J	11.73 U J
Barium	mg/kg	1116.02 J	1962.53 J	1393.11 J	560.65 J	1030.87 J
Cadmium	mg/kg	63.84	105.33	38.08	36.29 U	70.17
Chromium	mg/kg	112.6 U	128.76 U	118.11 U	113.01 U	107.02 U
Cobalt	mg/kg	120.51 U	129.74 U	122.76 U	130.61 U	118.8 J Q
Copper	mg/kg	54.02 J	64.6 J	39.14 J	47.57 J	53.97 J
Iron	mg/kg	24599.9	25793.57	24553.37	28396.93	21447.09
Lead	mg/kg	341.95 J	457.36 J	237.8 J	482.7 J	314.13 J
Manganese	mg/kg	665.12 J	897.57 J	766.25 J	372.96 J	437.74 J
Mercury	mg/kg	10.56 U J	11.58 U J	10.19 U J	10.25 U J	9.88 U J
Nickel	mg/kg	24.25 U J	26.62 U J	28.55 J	25.78 U J	23.2 U J
Selenium	mg/kg	2.94 U	3.37 U	2.8 U	2.95 U	2.77 U
Silver	mg/kg	24.62 U J	26.63 U J	25.57 U J	25.41 U J	24.25 U J
Zinc	mg/kg	4938.72	6327.72	3096.92	2292.01	3675.35

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-COMP2(1-6) 1 - 6 06/09/05	OU4-SS-11-COMP2(6-12) 6 - 12 06/09/05	OU4-SS-11-COMP2(12-18) 12 - 18 06/09/05	OU4-SS-11-COMP3(0-1) 0 - 1 06/09/05	OU4-SS-11-COMP3(1-6) 1 - 6 06/09/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	19.18 J	14.52 J	14.73 J	12.02 U	14.2 J
Barium	mg/kg	1072.47 J	1454.75 J	693.22 J	1110.57	1137.31
Cadmium	mg/kg	69.21	44.52	36.68 U	71.91 J	63.54 J
Chromium	mg/kg	110.8 U	117 U	107.71 U	112.68 U	110.54 U
Cobalt	mg/kg	116.99 U	120.09 U	125.69 J Q	134.96 J	110.53 U
Copper	mg/kg	48.89 J	38.48 J	29.88 J	53.94 J	40.49 J
Iron	mg/kg	22655.54	22290.83	21912.83	25688.46	20077.24
Lead	mg/kg	270.15 J	228.48 J	187.33 J	313.9 J	243.18 J
Manganese	mg/kg	623.81 J	505.31 J	449.88 J	516.57 J	469.36 J
Mercury	mg/kg	10.31 U J	10.43 U J	9.46 U J	10.15 U J	10.35 U J
Nickel	mg/kg	23.85 U J	25.56 U J	22.74 U J	25.19 U	23.57 U
Selenium	mg/kg	2.72 U	2.82 U	2.77 U J	2.9 U	2.79 U
Silver	mg/kg	25.38 U J	26.11 U J	25.6 U J	24.68 U J	25.26 U J
Zinc	mg/kg	4149.81	2928.08	1849.23	4124.2	3006.19

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-COMP3(6-12) 6 - 12 06/09/05	OU4-SS-11-COMP3(12-18) 12 - 18 06/09/05	OU4-SS-12-COMP1(0-1) 0 - 1 06/10/05	OU4-SS-12-COMP1(1-6) 1 - 6 06/10/05	OU4-SS-12-COMP1(6-12) 6 - 12 06/10/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	12.7 J	20.84 J	10.94 J	15.66 J	7.55 J
Barium	mg/kg	772.3	393.6	391.36	832.98	294.78
Cadmium	mg/kg	36.19 U	36.17 U	33.37 U	46.25	34.59 U
Chromium	mg/kg	107.95 U	117.02 U	94.92 U	110.13 U	96.86 U
Cobalt	mg/kg	116.13 U	151.67 U	93.76 JQ	107.91 U	88.93 U
Copper	mg/kg	20.32 J	48.9 J	19.68 J	43.02	12.45 U
Iron	mg/kg	22078.46	37996.14	14938.17 U	19589.9	14305.39 U
Lead	mg/kg	183.26 J	547.25 J	141.94 J	282.28 J	90.01 J
Manganese	mg/kg	421.35 UJ	480.41 J	464.62 J	701.48 J	711.71 J
Mercury	mg/kg	9.22 U J	17.83 JQ	7.98 U J	10.31 U J	8.17 U J
Nickel	mg/kg	23.98 U	27.75 U	19.52 U	23.4 U	20.44 U
Selenium	mg/kg	2.73 U	3.25 U	2.38 U	2.73 U	2.37 U
Silver	mg/kg	25.31 U J	25.36 U J	23.26 U J	24.97 U J	23.99 U J
Zinc	mg/kg	1602.89	3236.71	1749.8	4190.62	1400.86

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-12-COMP1(12-18) 12 - 18 06/10/05	OU4-SS-12-COMP2(0-1) 0 - 1 06/10/05	OU4-SS-12-COMP2(1-6) 1 - 6 06/10/05	OU4-SS-12-COMP2(6-12) 6 - 12 06/10/05	OU4-SS-12-COMP2(12-18) 12 - 18 06/10/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	3.86 U	8.83 U	17.84 J	7.57 U	4.09 U
Barium	mg/kg	281.04	535.81	1573.78	252.98	236.69 U
Cadmium	mg/kg	33.95 U	36.76	82.95	34.8 U	34.6
Chromium	mg/kg	88.64 U	99.95 U	118.45 U	93.95 U	92.67 U
Cobalt	mg/kg	77.32 U	96.83 U	120.36 U	92.84 U	85.27 U
Copper	mg/kg	10.78 U	25.92 J	59.23 J	12.38 U	10.89 U
Iron	mg/kg	11100.19 U	17021.36 U	24455.07	15511.12 U	13253.83 U
Lead	mg/kg	10.78 U	164.03 J	291.77 J	112.58 J	18.61 U
Manganese	mg/kg	676.64 J	419.92 U J	549.21 J	531.85 J	359.66 U J
Mercury	mg/kg	7.34 U J	8.26 U J	10.26 U J	8.31 U J	6.96 U J
Nickel	mg/kg	18.1 U	20.55 U	26.55	20.53 U	18.76 U
Selenium	mg/kg	2.07 U	2.46 U	2.76 U	2.33 U	2.26 U
Silver	mg/kg	23.62 U J	23.82 U J	25.49 U J	24.22 U J	23.74 U J
Zinc	mg/kg	54.41	1837.44	4219.45	1382.24	161.15

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-12-COMP3(0-1) 0 - 1 06/10/05	OU4-SS-12-COMP3(1-6) 1 - 6 06/10/05	OU4-SS-12-COMP3(6-12) 6 - 12 06/10/05	OU4-SS-12-COMP3(12-18) 12 - 18 06/10/05	OU4-SS-13-COMP1(0-1) 0 - 1 06/13/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	18.14 J	11.5 U	6.09 U	4.36 U	11.03 U
Barium	mg/kg	560.95	746.1	238.58 U	224.58 U	1164.17
Cadmium	mg/kg	34.92 U	56.05	35.98	33.92 U	41.32
Chromium	mg/kg	99.4 U	104.42 U	90.14 U	90.72 U	107.35 U
Cobalt	mg/kg	95.14 U	99.83 U	81.14 U	73.38 U	104.96 U
Copper	mg/kg	35.09 J	42.98 J	11.59 U	10.91 U	35.51
Iron	mg/kg	15916.69 U	17686.73 U	11424.08 U	9873.83 U	18553.73 U
Lead	mg/kg	358.09 J	297.36 J	65.27 J	20.38 U	257.94
Manganese	mg/kg	492.05 J	591.38 J	499.84 J	392.83 U J	404.64 U J
Mercury	mg/kg	9.94 U J	9.59 U J	7.82 U J	6.62 U J	9.5 U J
Nickel	mg/kg	20.96 U	21.56 U	19.12 U	17.43 U	24.64 J
Selenium	mg/kg	2.7 U	2.74 U	2.25 U	2.13 U	2.72 U
Silver	mg/kg	24.25 U J	24.34 U J	24.49 U J	23.56 U J	24.77 U J
Zinc	mg/kg	3022.58	3056.81	793.9	301.36	2460.42

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-COMP1(1-6) 1 - 6 06/13/05	OU4-SS-13-COMP1(6-12) 6 - 12 06/13/05	OU4-SS-13-COMP1(12-18) 12 - 18 06/13/05	OU4-SS-13-COMP2(0-1) 0 - 1 06/13/05	OU4-SS-13-COMP2(1-6) 1 - 6 06/13/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	15.89 J	24.78 J	12.24 J	10.89 J	12.05 J
Barium	mg/kg	1181.28	633.42	658.52	604.83	884.65
Cadmium	mg/kg	36.42 U	41.41	35.5 U	47.36	35.63 U
Chromium	mg/kg	110.29 U	115.97 U	103.73 U	101.26 U	103.38 U
Cobalt	mg/kg	109.58 U	144.56 U	107.89 U	99.54 U	104.78 U
Copper	mg/kg	28.27	32.31	24.79	26.51	27.9
Iron	mg/kg	19722.21	33813.83	20252.14	17089.84 U	18844.63
Lead	mg/kg	191.74	226.19	202.35	170.51	147.09
Manganese	mg/kg	447.82 UJ	540.97 UJ	518.27 UJ	371.15 UJ	403.61 UJ
Mercury	mg/kg	9.66 U J	22.62 J	14.06 JQ	8.64 U J	9.31 U J
Nickel	mg/kg	23.45 U	27.67 U	22.37 U	22.26 U	22.14 U
Selenium	mg/kg	2.79 U	2.88 U	2.62 U	2.53 U	2.62 U
Silver	mg/kg	25.52 U J	25.98 U J	24.74 U J	24.82 U J	24.91 U J
Zinc	mg/kg	1784.55	1113.36	1066.65	1330.99	1409.73

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-COMP2(6-12) 6 - 12 06/13/05	OU4-SS-13-COMP2(12-18) 12 - 18 06/13/05	OU4-SS-13-COMP3(0-1) 0 - 1 06/13/05	OU4-SS-13-COMP3(1-6) 1 - 6 06/13/05	OU4-SS-13-COMP3(6-12) 6 - 12 06/13/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	11.17 J	16.14 J	17.63 J	13.66 J	10.44 J
Barium	mg/kg	563.33	947.92	600.55	579.37	326.43
Cadmium	mg/kg	34.86 U	35.13 U	33.56 U	45.6	34.83 U
Chromium	mg/kg	102.48 U	104.3 U	98.97 U	112.31 U	98.07 U
Cobalt	mg/kg	104.77 U	154.06	101.44 U	123.38 U	141.39 J
Copper	mg/kg	23.4	33.62	33.8	21.29	17.18
Iron	mg/kg	19946.49	22148.31	18864.11 J	26437	21144.82
Lead	mg/kg	121.35	207.65	305.46	213.54	155.04
Manganese	mg/kg	357.86 UJ	489.31 UJ	510.62 UJ	418.86 UJ	410.86 UJ
Mercury	mg/kg	16.73 JQ	10.14 JQ	9.07 U J	8.81 U J	9.75 JQ
Nickel	mg/kg	22.04 U	23.43 U	22.05 U	24.44 U	22.18 U
Selenium	mg/kg	2.67 U	2.73 U	2.71 U	2.66 U	2.41 U
Silver	mg/kg	24.28 U J	24.56 U J	23.47 U J	25 U J	24.21 U J
Zinc	mg/kg	517.64	1294.34	2035.76	1648.6	771.03

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-COMP3(12-18) 12 - 18 06/13/05
Metals - XRF (USEPA SW-846 62(		
Arsenic	mg/kg	10 J
Barium	mg/kg	289.13
Cadmium	mg/kg	53.57
Chromium	mg/kg	101.36 U
Cobalt	mg/kg	105.83 U
Copper	mg/kg	12.81 U
Iron	mg/kg	18270.39 J
Lead	mg/kg	132.93
Manganese	mg/kg	453.54 J J
Mercury	mg/kg	10.58 J Q
Nickel	mg/kg	22.22 U J
Selenium	mg/kg	2.62 U
Silver	mg/kg	25.05 U J
Zinc	mg/kg	497.89

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-061505 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	207.76	208	99.88	Acceptable
Barium	643.33	879	73.19	Not Acceptable
Cadmium	142.8	141	101.28	Acceptable
Chromium	216.59	132	164.08	Not Acceptable
Cobalt	159.51	131	121.76	Not Acceptable
Copper	111.08	98.8	112.43	Acceptable
Iron	22730.59	24400	93.16	Acceptable
Lead	192.75	179	107.68	Acceptable
Manganese	466.93	591	79.01	Not Acceptable
Mercury	80.56	11.2	719.29	Not Acceptable
Nickel	54.89	80.1	68.53	Not Acceptable
Selenium	191.66	181	105.89	Acceptable
Silver	107.41	147	73.07	Not Acceptable
Zinc	274.39	263	104.33	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-061505 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	222.49	208	106.97	Acceptable
Barium	779.78	879	88.71	Acceptable
Cadmium	118.52	141	84.06	Acceptable
Chromium	254.57	132	192.86	Not Acceptable
Cobalt	250.25	131	191.03	Not Acceptable
Copper	129.96	98.8	131.54	Not Acceptable
Iron	22859.95	24400	93.69	Acceptable
Lead	216.23	179	120.80	Not Acceptable
Manganese	442.61	591	74.89	Not Acceptable
Mercury	92.53	11.2	826.16	Not Acceptable
Nickel	90.02	80.1	112.38	Acceptable
Selenium	214.63	181	118.58	Acceptable
Silver	82.15	147	55.88	Not Acceptable
Zinc	305.25	263	116.06	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-061505 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	212.92	208	102.37	Acceptable
Barium	785.61	879	89.38	Acceptable
Cadmium	143.29	141	101.62	Acceptable
Chromium	251.17	132	190.28	Not Acceptable
Cobalt	190.41	131	145.35	Not Acceptable
Copper	105.82	98.8	107.11	Acceptable
Iron	21599.32	24400	88.52	Acceptable
Lead	208.39	179	116.42	Acceptable
Manganese	399.36	591	67.57	Not Acceptable
Mercury	81.2	11.2	725.00	Not Acceptable
Nickel	81.23	80.1	101.41	Acceptable
Selenium	200.47	181	110.76	Acceptable
Silver	102.28	147	69.58	Not Acceptable
Zinc	296.04	263	112.56	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-061505 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	214.01	208	102.89	Acceptable
Barium	814.79	879	92.70	Acceptable
Cadmium	144.59	141	102.55	Acceptable
Chromium	176.66	132	133.83	Not Acceptable
Cobalt	205.39	131	156.79	Not Acceptable
Copper	105.15	98.8	106.43	Acceptable
Iron	21665.25	24400	88.79	Acceptable
Lead	191.75	179	107.12	Acceptable
Manganese	409.31	591	69.26	Not Acceptable
Mercury	83.54	11.2	745.89	Not Acceptable
Nickel	93.4	80.1	116.60	Acceptable
Selenium	203.43	181	112.39	Acceptable
Silver	95.47	147	64.95	Not Acceptable
Zinc	286.36	263	108.88	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS					
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-061505 06/15/05	OU4-SS-MBLANK2-061505 06/15/05	OU4-SS-MBLANK3-061505 06/15/05	OU4-SS-MBLANK4-061505 06/15/05
Metals - XRF					
Iron	mg/kg	**3436.19**	**3899.27**	**3745.81**	**3567.08**
Lead	mg/kg	5.22 U	**5.75**	**6.8**	**11.2**
Manganese	mg/kg	**43.09**	**45.26**	**93.47**	**137.51**
Zinc	mg/kg	6.57 U	7.11 U	**8.05**	6.49 U

Note:
Only detected analytes on specified day of analysis are summarized.

EQUIPMENT BLANKS					
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1-061505 06/15/05	OU4-SS-EBLANK2-061505 06/15/05	OU4-SS-EBLANK3-061505 06/15/05	OU4-SS-EBLANK4-061505 06/15/05
Metals - XRF					
Silver	mg/kg	**23.43**	22.22 U	22.32 U	22.25 U

Note:
Only detected analytes on specified day of analysis are summarized.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-08-COMP3(0-1) 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-1 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-2 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-3 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-4 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-5 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-6 0 - 1 6/8/05	OU4-SS-08-COMP3(0-1)-7 0 - 1 6/8/05	SD	Mean	RSD
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value													
Arsenic	mg/kg	8 6	23.71	30 89	29.73	38.98	26 88	19.44	23.96	18.11	6.761867	26.4625	25 55264
Barium	mg/kg	11000	4195.44	3632 56	3709.14	3613.46	3333.24	3790.49	3701 26	3274.33	284.3941	3656.24	7.778321
Cadmium	mg/kg	78	130.35	137.64	157.88	115 82	125.35	140.22	140.81	144 59	12.7952	136.5825	9.368109
Chromium	mg/kg	780	138.68	139.75	136.77	138.14	136.04	138.09	139.87	169 32	11.08417	142.0825	7.801222
Cobalt	mg/kg	9400	131.67	133.41	133.09	133 98	133.07	132.86	132.99	133 37	0 659307	133.055	0.495515
Copper	mg/kg	6200	123.26	120.94	128.92	130.48	131.68	130.37	134.81	127 27	4 529856	128.4663	3.526106
Iron	mg/kg	46000	25421 39	26011.78	25571.91	26016.81	25823.43	25722.68	25854.61	25846.1	205.8807	25783.59	0.798495
Lead	mg/kg	240	703.74	651.66	636 3	634 56	658.84	651.79	656.85	652.45	21.32876	655.7738	3.252457
Manganese	mg/kg	3600	610.58	603.79	583.63	624.5	589.64	585.54	639.16	634.5	22.03416	608.9175	3.618579
Mercury	mg/kg	15.6	14 27	13 58	13.44	13.33	14 01	13 27	13.25	13.79	0 374347	13 6175	2.749015
Nickel	mg/kg	3200	28.1	28.17	27.43	27.97	28 05	27.76	28.41	27.7	0 307499	27.94875	1.100223
Selenium	mg/kg	780	3.67	3.59	3.41	3.57	3.43	3.53	3.44	3.46	0 092389	3.5125	2.63029
Silver	mg/kg	780	27 04	26 96	26.87	26.96	26 96	26 99	27.1	26.89	0 074534	26.97125	0.276347
Zinc	mg/kg	46000	10616 25	10013.07	10030.79	10118.22	10000.8	10028.91	10137.67	10089.09	203.0953	10129.35	2.005018

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF061605

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF061605 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-14-COMP1(0-1)	Soil	6/16/2005				X	
OU4-SS-14-COMP1(1-6)	Soil	6/16/2005				X	
OU4-SS-14-COMP1(6-12)	Soil	6/16/2005				X	
OU4-SS-14-COMP1(12-18)	Soil	6/16/2005				X	
OU4-SS-14-COMP2(0-1)	Soil	6/16/2005				X	
OU4-SS-14-COMP2(1-6)	Soil	6/16/2005				X	
OU4-SS-14-COMP2(6-12)	Soil	6/16/2005				X	
OU4-SS-14-COMP2(12-18)	Soil	6/16/2005				X	
OU4-SS-14-COMP2(12-18)-DUP	Soil	6/16/2005				X	
OU4-SS-14-COMP3(0-1)	Soil	6/16/2005				X	
OU4-SS-14-COMP3(1-6)	Soil	6/16/2005				X	
OU4-SS-14-COMP3(6-12)	Soil	6/16/2005				X	
OU4-SS-14-COMP3(12-18)	Soil	6/16/2005				X	
OU4-SS-14-COMP4(0-1)	Soil	6/16/2005				X	
OU4-SS-14-COMP4(1-6)	Soil	6/16/2005				X	
OU4-SS-14-COMP4(6-12)	Soil	6/16/2005				X	
OU4-SS-14-COMP4(12-18)	Soil	6/16/2005				X	
OU4-SS-14-16(0-1)	Soil	6/16/2005				X	
OU4-SS-14-16(1-6)	Soil	6/16/2005				X	
OU4-SS-14-16(6-12)	Soil	6/16/2005				X	
OU4-SS-14-16(12-18)	Soil	6/16/2005				X	
OU4-SS-14-17(0-1)	Soil	6/16/2005				X	
OU4-SS-14-17(1-6)	Soil	6/16/2005				X	
OU4-SS-14-17(6-12)	Soil	6/16/2005				X	
OU4-SS-14-17(12-18)	Soil	6/16/2005				X	
OU4-SS-14-17(12-18)-DUP	Soil	6/16/2005				X	
OU4-SS-15-COMP1(0-1)	Soil	6/16/2005				X	
OU4-SS-15-COMP1(1-6)	Soil	6/16/2005				X	
OU4-SS-15-COMP1(6-12)	Soil	6/16/2005				X	
OU4-SS-15-COMP1(12-18)	Soil	6/16/2005				X	
OU4-SS-15-COMP2(0-1)	Soil	6/16/2005				X	
OU4-SS-15-COMP2(1-6)	Soil	6/16/2005				X	
OU4-SS-15-COMP2(6-12)	Soil	6/16/2005				X	
OU4-SS-15-COMP2(12-18)	Soil	6/16/2005				X	
OU4-SS-15-COMP3(0-1)	Soil	6/16/2005				X	
OU4-SS-15-COMP3(1-6)	Soil	6/16/2005				X	
OU4-SS-15-COMP3(6-12)	Soil	6/16/2005				X	
OU4-SS-15-COMP3(12-18)	Soil	6/16/2005				X	
OU4-SS-15-COMP4(0-1)	Soil	6/16/2005				X	
OU4-SS-15-COMP4(1-6)	Soil	6/16/2005				X	
OU4-SS-15-COMP4(6-12)	Soil	6/16/2005				X	
OU4-SS-15-COMP4(12-18)	Soil	6/16/2005				X	
OU4-SS-16-COMP1(0-1)	Soil	6/16/2005				X	
OU4-SS-16-COMP1(0-1)-DUP	Soil	6/16/2005				X	
OU4-SS-16-COMP1(1-6)	Soil	6/16/2005				X	
OU4-SS-16-COMP1(6-12)	Soil	6/16/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-16-COMP1(12-18)	Soil	6/16/2005				X	
OU4-SS-16-COMP2(0-1)	Soil	6/16/2005				X	
OU4-SS-16-COMP2(1-6)	Soil	6/16/2005				X	
OU4-SS-16-COMP2(6-12)	Soil	6/16/2005				X	
OU4-SS-16-COMP2(12-18)	Soil	6/16/2005				X	
OU4-SS-16-COMP3(0-1)	Soil	6/16/2005				X	
OU4-SS-16-COMP3(1-6)	Soil	6/16/2005				X	
OU4-SS-16-COMP3(6-12)	Soil	6/16/2005				X	
OU4-SS-16-COMP3(12-18)	Soil	6/16/2005				X	
OU4-SS-16-COMP4(0-1)	Soil	6/16/2005				X	
OU4-SS-16-COMP4(1-6)	Soil	6/16/2005				X	
OU4-SS-16-COMP4(6-12)	Soil	6/16/2005				X	
OU4-SS-16-COMP4(12-18)	Soil	6/16/2005				X	
OU4-SS-16-COMP5(0-1)	Soil	6/16/2005				X	
OU4-SS-16-COMP5(1-6)	Soil	6/16/2005				X	
OU4-SS-16-COMP5(6-12)	Soil	6/16/2005				X	
OU4-SS-16-COMP5(12-18)	Soil	6/16/2005				X	
OU4-SS-16-COMP5(12-18)-DUP	Soil	6/16/2005				X	
OU4-SS-17-COMP1(0-1)	Soil	6/16/2005				X	
OU4-SS-17-COMP1(1-6)	Soil	6/16/2005				X	
OU4-SS-17-COMP1(6-12)	Soil	6/16/2005				X	
OU4-SS-17-COMP1(12-18)	Soil	6/16/2005				X	
OU4-SS-17-COMP2(0-1)	Soil	6/16/2005				X	
OU4-SS-17-COMP2(1-6)	Soil	6/16/2005				X	
OU4-SS-17-COMP2(6-12)	Soil	6/16/2005				X	
OU4-SS-17-COMP2(12-18)	Soil	6/16/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The following analytes were detected in the associated method blanks or equipment blanks: iron, lead, manganese, and zinc. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U).

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120% were qualified as estimated.
- Detected sample results associated with a calibration standard exhibiting a recovery less than 80% were qualified as estimated.
- Nondetect sample results associated with a calibration standard exhibiting a recovery less than 80% but greater than 50% were qualified as estimated.

4. Precision Measurement (seven replicates)

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-11-COMP3(12-18). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-14-COMP2(12-18)/OU4-SS-14-COMP2(12-18)-DUP	Arsenic	12.43		8.71		35.2
	Barium	332.92		509.55		41.9
	Cadmium	35.13	U	35.35		AC
	Chromium	100.54	U	99.4	U	AC
	Cobalt	89.74	U	89.98	U	AC
	Copper	12.32	U	13.22		AC
	Iron	13754.43		13620.23		1.0
	Lead	88.2		94.37		6.8
	Manganese	409.54		431.55		5.2
	Mercury	7.63	U	8.12	U	AC
	Nickel	20.38	U	20.31	U	AC
	Selenium	2.46	U	2.43	U	AC
	Silver	24.73	U	24.66	U	AC
	Zinc	910.56		906.53		0.4
OU4-SS-14-17(12-18)/OU4-SS-14-17(12-18)-DUP	Arsenic	13.35		13.61		1.9
	Barium	398.99		303.19	U	AC
	Cadmium	36.66	U	36.69	U	AC
	Chromium	114.97	U	111.77	U	AC
	Cobalt	133.65	U	133.57	U	AC
	Copper	25.35		17.98		34.0
	Iron	28798.53		28649.64		0.5
	Lead	83.35		85.17		2.2
	Manganese	385.3		355.04		8.2
	Mercury	9.35	U	8.92	U	AC
OU4-SS-14-17(12-18)/OU4-SS-14-17(12-18)-DUP	Nickel	25.84	U	25.22	U	AC
	Selenium	2.56	U	2.63	U	AC
	Silver	25.82	U	25.86	U	AC
	Zinc	1004.82		998.48		0.6

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-16-COMP1(0-1)/OU4-SS-16-COMP1(0-1)-DUP	Arsenic	15.1		13.09	U	AC
	Barium	936.44		1108.69		16.8
	Cadmium	35.84	U	35.63	U	AC
	Chromium	109.06	U	110.2	U	AC
	Cobalt	112.6	U	109.4	U	AC
	Copper	36.03		32.18		11.3
	Iron	20851.54		20299.96		2.7
	Lead	403.48		378.26		6.5
	Manganese	503.85		550.06		8.8
	Mercury	9.64	U	9.26	U	AC
	Nickel	23.37	U	22.94	U	AC
	Selenium	2.79	U	2.88	U	AC
	Silver	25.15	U	24.94	U	AC
	Zinc	1692.9		1754.37		3.6
OU4-SS-16-COMP5(12-18)/ OU4-SS-16-COMP5(12-18)-DUP	Arsenic	4.5	U	4.42	U	AC
	Barium	234.97	U	273.32		AC
	Cadmium	35.23	U	33.67	U	AC
	Chromium	91.7	U	86.92	U	AC
	Cobalt	85.42	U	80.91	U	AC
	Copper	11.78	U	11.05	U	AC
	Iron	11739.67		11936.3		1.7
	Lead	19.37		22.92		16.8
	Manganese	301.38		348.5		14.5
	Mercury	6.73	U	7.06	U	AC
	Nickel	20.02	U	19.28	U	AC
	Selenium	2.25	U	2.41	U	AC
	Silver	24.48	U	23.44	U	AC
OU4-SS-16-COMP5(12-18)/ OU4-SS-16-COMP5(12-18)-DUP	Zinc	139.86		155.78		10.8

ND not detected.

AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/16/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-061605	QC		QC
2	733	OU4-SS-EBLANK1-061605	QC		QC
3	733	OU4-SS-MBLANK1-061605	QC		QC
4	733	OU4-SS-CLPSTD1-061605	QC		QC
5	733	OU4-SS-11-COMP3(12-18)-1	QC		QC
6	733	OU4-SS-11-COMP3(12-18)-2	QC		QC
7	733	OU4-SS-11-COMP3(12-18)-3	QC		QC
8	733	OU4-SS-11-COMP3(12-18)-4	QC		QC
9	733	OU4-SS-11-COMP3(12-18)-5	QC		QC
10	733	OU4-SS-11-COMP3(12-18)-6	QC		QC
11	733	OU4-SS-11-COMP3(12-18)-7	QC		QC
12	733	OU4-SS-14-COMP1(0-1)	FS	14	W14
13	733	OU4-SS-14-COMP1(1-6)	FS	14	W14
14	733	OU4-SS-14-COMP1(6-12)	FS	14	W14
15	733	OU4-SS-14-COMP1(12-18)	FS	14	W14
16	733	OU4-SS-14-COMP2(0-1)	FS	14	W14
17	733	OU4-SS-14-COMP2(1-6)	FS	14	W14
18	733	OU4-SS-14-COMP2(6-12)	FS	14	W14
19	733	OU4-SS-14-COMP2(12-18)	FS	14	W14
20	733	OU4-SS-14-COMP2(12-18-DUP	QC		QC
21	733	OU4-SS-EBLANK2-061605	QC		QC
22	733	OU4-SS-MBLANK2-061605	QC		QC
23	733	OU4-SS-CLPSTD2-061605	QC		QC
24	733	OU4-SS-14-COMP3(0-1)	FS	14	W14
25	733	OU4-SS-14-COMP3(1-6)	FS	14	W14
26	733	OU4-SS-14-COMP3(6-12)	FS	14	W14
27	733	OU4-SS-14-COMP3(12-18)	FS	14	W14
28	733	OU4-SS-14-COMP4(0-1)	FS	14	W14
29	733	OU4-SS-14-COMP4(1-6)	FS	14	W14
30	733	OU4-SS-14-COMP4(6-12)	FS	14	W14
31	733	OU4-SS-14-COMP4(12-18)	FS	14	W14
32	733	OU4-SS-14-16(0-1)	FS	14	W14
33	733	OU4-SS-14-16(1-6)	FS	14	W14
34	733	OU4-SS-14-16(6-12)	FS	14	W14
35	733	OU4-SS-14-16(12-18)	FS	14	W14
36	733	OU4-SS-14-17(0-1)	FS	14	W14
37	733	OU4-SS-14-17(1-6)	FS	14	W14

Electronic Log for 06/16/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-14-17(6-12)	FS	14	W14
39	733	OU4-SS-14-17(12-18)	FS	14	W14
40	733	OU4-SS-14-17(12-18)-DUP	QC		QC
41	733	OU4-SS-EBLANK3-061605	QC		QC
42	733	OU4-SS-MBLANK3-061605	QC		QC
43	733	OU4-SS-CLPSTD3-061605	QC		QC
44	733	OU4-SS-15-COMP1(0-1)	FS	15	S18
45	733	OU4-SS-15-COMP1(1-6)	FS	15	S18
46	733	OU4-SS-15-COMP1(6-12)	FS	15	S18
47	733	OU4-SS-15-COMP1(12-18)	FS	15	S18
48	733	OU4-SS-15-COMP2(0-1)	FS	15	S18
49	733	OU4-SS-15-COMP2(1-6)	FS	15	S18
50	733	OU4-SS-15-COMP2(6-12)	FS	15	S18
51	733	OU4-SS-15-COMP2(12-18)	FS	15	S18
52	733	OU4-SS-15-COMP3(0-1)	FS	15	S18
53	733	OU4-SS-15-COMP3(1-6)	FS	15	S18
54	733	OU4-SS-15-COMP3(6-12)	FS	15	S18
55	733	OU4-SS-15-COMP3(12-18)	FS	15	S18
56	733	OU4-SS-15-COMP4(0-1)	FS	15	S18
57	733	OU4-SS-15-COMP4(1-6)	FS	15	S18
58	733	OU4-SS-15-COMP4(6-12)	FS	15	S18
59	733	OU4-SS-15-COMP4(12-18)	FS	15	S18
60	733	OU4-SS-EBLANK4-061605	QC		QC
61	733	OU4-SS-STD2-061605	QC		QC
62	733	OU4-SS-MBLANK4-061605	QC		QC
63	733	OU4-SS-CLPSTD4-061605	QC		QC
64	733	OU4-SS-16-COMP1(0-1)	FS	16	S12
65	733	OU4-SS-16-COMP1(0-1)-DUP	QC		QC
66	733	OU4-SS-16-COMP1(1-6)	FS	16	S12
67	733	OU4-SS-16-COMP1(6-12)	FS	16	S12
68	733	OU4-SS-16-COMP1(12-18)	FS	16	S12
69	733	OU4-SS-16-COMP2(0-1)	FS	16	S12
70	733	OU4-SS-16-COMP2(1-6)	FS	16	S12
71	733	OU4-SS-16-COMP2(6-12)	FS	16	S12
72	733	OU4-SS-16-COMP2(12-18)	FS	16	S12
73	733	OU4-SS-16-COMP3(0-1)	FS	16	S12
74	733	OU4-SS-16-COMP3(1-6)	FS	16	S12

Electronic Log for 06/16/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-16-COMP3(6-12)	FS	16	S12
76	733	OU4-SS-16-COMP3(12-18)	FS	16	S12
77	733	OU4-SS-16-COMP4(0-1)	FS	16	S12
78	733	OU4-SS-16-COMP4(1-6)	FS	16	S12
79	733	OU4-SS-16-COMP4(6-12)	FS	16	S12
80	733	OU4-SS-16-COMP4(12-18)	FS	16	S12
81	733	OU4-SS-16-COMP5(0-1)	FS	16	S12
82	733	OU4-SS-16-COMP5(1-6)	FS	16	S12
83	733	OU4-SS-16-COMP5(6-12)	FS	16	S12
84	733	OU4-SS-16-COMP5(12-18)	FS	16	S12
85	733	OU4-SS-STD3-FAIL-061605	QC		QC
86	733	OU4-SS-STD4-061605	QC		QC
87	733	OU4-SS-16-COMP5(12-18)-DU	QC		QC
88	733	OU4-SS-EBLANK5-061605	QC		QC
89	733	OU4-SS-MBLANK5-061605	QC		QC
90	733	OU4-SS-CLPSTD5-061605	QC		QC
91	733	OU4-SS-17-COMP1(0-1)	FS	17	W06
92	733	OU4-SS-17-COMP1(1-6)	FS	17	W06
93	733	OU4-SS-17-COMP1(6-12)	FS	17	W06
94	733	OU4-SS-17-COMP1(12-18)	FS	17	W06
95	733	OU4-SS-17-COMP2(0-1)	FS	17	W06
96	733	OU4-SS-17-COMP2(1-6)	FS	17	W06
97	733	OU4-SS-17-COMP2(6-12)	FS	17	W06
98	733	OU4-SS-17-COMP2(12-18)	FS	17	W06
99	733	OU4-SS-EBLANK6-061605	QC		QC
100	733	OU4-SS-MBLANK6-061605	QC		QC
101	733	OU4-SS-CLPSTD6-061605	QC		QC
102	733	OU4-SS-STD5-061605	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-16(0-1) 0 - 1 06/16/05	OU4-SS-14-16(1-6) 1 - 6 06/16/05	OU4-SS-14-16(6-12) 6 - 12 06/16/05	OU4-SS-14-16(12-18) 12 - 18 06/16/05	OU4-SS-14-17(0-1) 0 - 1 06/16/05	OU4-SS-14-17(1-6) 1 - 6 06/16/05
Metals - XRF (USEPA SW-846 6200)							
Arsenic	mg/kg	10.63 J	9.81 U J	18.33 J	10.65 J	10.14 U	13.27 J
Barium	mg/kg	789.53 J	1080.54 J	2014.32 J	810.61 J	1024.17 J	1329.5 J
Cadmium	mg/kg	35.58 U	36.01 U	41.6	43.96	35.79	36.66 U
Chromium	mg/kg	103.94 U	105.47 U	117.07 U	96.72 U	108.04 U	114.41 U
Cobalt	mg/kg	92.61 U	94.99 U	108.77 U	90.06 U	106.01 U	105.29 U
Copper	mg/kg	26.15 J	31.49 J	41.49 J	15.04 J	32.47 J	40.31 J
Iron	mg/kg	13886.34 U	14623.02 U	18000.66 U	13876.04 U	18245.75 U	17730.93 U
Lead	mg/kg	179.65	190.02	259.55	143.58	202.54	219.19
Manganese	mg/kg	686.36	736.56	540.32	424.6 U	528.47	593.63
Mercury	mg/kg	9.32 U J	9.58 U J	10.15 U J	8.54 U J	13.35 J Q	9.55 U J
Nickel	mg/kg	21.78 U	21.86 U	24.21 U	21.2 U	22.76 U	23.53 U
Selenium	mg/kg	2.58 U	2.66 U	2.99 U	2.62 U	2.71 U	2.74 U
Silver	mg/kg	24.9 U J	25.28 U J	26.38 U J	24.49 U J	25.31 U J	25.79 U J
Zinc	mg/kg	1831.49	2011.02	2287.22	1394.99	1938.73	2096.49

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-17(6-12) 6 - 12 06/13/05	OU4-SS-14-17(12-18) 12 - 18 06/16/05	OU4-SS-14-COMP1(0-1) 0 - 1 06/13/05	OU4-SS-14-COMP1(1-6) 1 - 6 06/13/05	OU4-SS-14-COMP1(6-12) 6 - 12 06/13/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	13.81 J	13.35 J	11.5 U	18.38 J	11.39 J
Barium	mg/kg	1071.87 J	398.99 J	1474.57 J	2128.81 J	962.4 J
Cadmium	mg/kg	35.25 U	36.66 U	54.5	62.01	37.73
Chromium	mg/kg	105.04 U	114.97 U	108.45 U	115.12 U	110.04 U
Cobalt	mg/kg	98.31 U	133.65 U	101.77 U	108.38 U	102.22 U
Copper	mg/kg	17.05 J	25.35 J	42.48 J	29.24 J	25.66 J
Iron	mg/kg	16567.88 U	28798.53	16815.46 U	18859.25 U	16838.03 U
Lead	mg/kg	154.51	83.35	279.15	269.55	162.93
Manganese	mg/kg	408.87 U	385.3 U	554.95 J	658.02 J	445.08 U U
Mercury	mg/kg	10.51 JQ	9.35 U J	9.74 U J	10.1 U J	9.2 U J
Nickel	mg/kg	24.07 JQ	25.84 U	22.79 U	23.99 U	23.13 U
Selenium	mg/kg	2.52 U	2.56 U	2.7 U	2.95 U	2.6 U
Silver	mg/kg	24.79 U	25.82 U	25.04 U J	25.73 U J	25.47 U J
Zinc	mg/kg	1495.8	1004.82	2885.7 J	2892.2 J	1555.56 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-COMP1(12-18) 12 - 18 06/13/05	OU4-SS-14-COMP2(0-1) 0 - 1 06/13/05	OU4-SS-14-COMP2(1-6) 1 - 6 06/13/05	OU4-SS-14-COMP2(6-12) 6 - 12 06/13/05	OU4-SS-14-COMP2(12-18) 12 - 18 06/13/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	7.76 J	16.78 J	11.55 U	13.52 J	12.43 J
Barium	mg/kg	248.99 U J	1278.08 J	1439.28 J	1128.76 J	332.92 J
Cadmium	mg/kg	35.3 U	80.89	64.85	42.42	35.13 U
Chromium	mg/kg	95.16 U	104.43 U	112.05 U	105.82 U	100.54 U
Cobalt	mg/kg	88.47 U	101.27 U	103.73 U	100.34 U	89.74 U
Copper	mg/kg	12.12 U	38.42 J	39.37 J	22.62 J	12.32 U
Iron	mg/kg	13352.82 U	17444.22 U	17887.11 U	16633.59 U	13754.43 U
Lead	mg/kg	39.25	250.34	279.3	206.86	88.2
Manganese	mg/kg	416.21 U J	605.04 J	602.16 J	610.32 J	409.54 U J
Mercury	mg/kg	7.78 U J	9.76 U J	9.24 U J	9.8 U J	7.63 U J
Nickel	mg/kg	20.22 U	22.12 U	23.11 U	22.11 U	20.38 U
Selenium	mg/kg	2.44 U	2.74 U	2.85 U	2.65 U	2.46 U
Silver	mg/kg	24.66 U J	24.68 U J	25.24 U J	25.09 U J	24.73 U J
Zinc	mg/kg	353.12 J	2421.97 J	2652.21 J	2083.84 J	910.56 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-COMP3(0-1) 0 - 1 06/14/05	OU4-SS-14-COMP3(1-6) 1 - 6 06/14/05	OU4-SS-14-COMP3(6-12) 6 - 12 06/14/05	OU4-SS-14-COMP3(12-18) 12 - 18 06/14/05	OU4-SS-14-COMP4(0-1) 0 - 1 06/14/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	32.4 J	31.13 J	16.32 J	12.26 J	30.81 U
Barium	mg/kg	1605.56 J	2243.2 J	655.05 J	257.34 U J	2300.39 J
Cadmium	mg/kg	67.4	38.07 U	36.26 U	35.41 U	63.74
Chromium	mg/kg	119.54 U	129.48 U	105.3 U	99.32 U	118.97 U
Cobalt	mg/kg	134.11 U	144.44 U	114.57 U	101.07 U	107.55 U
Copper	mg/kg	47.99 J	56.57 J	33.57 J	12.77 J Q	51.04 J
Iron	mg/kg	28932.62	31605.55	21141.14 U	17225.87 U	18566.04 U
Lead	mg/kg	505.48	397.8	226.04	86.03	2185.31
Manganese	mg/kg	502.23	545.84	463.7 U	396.24 U	585.17
Mercury	mg/kg	15.01 J Q	15.01 J Q	9.65 U J	10.37 J Q	11.43 U J
Nickel	mg/kg	26.21 U	28.58 U	23.74 U	21.21 U	23.91 U
Selenium	mg/kg	3.21 U	3.03 U	2.74 U	2.5 U	4.33 U
Silver	mg/kg	25.68 U J	26.95 U J	25.6 U J	24.63 U J	25.5 U J
Zinc	mg/kg	3615.41	3436.48	1307.24	493.34	4285.37

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-COMP4(1-6) 1 - 6 06/14/05	OU4-SS-14-COMP4(6-12) 6 - 12 06/14/05	OU4-SS-14-COMP4(12-18) 12 - 18 06/14/05	OU4-SS-15-COMP1(0-1) 0 - 1 06/14/05	OU4-SS-15-COMP1(1-6) 1 - 6 06/14/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	28.98 J	17.49 J	6.32 J	15.74 J	13.75 J
Barium	mg/kg	1637.17 J	379.86 J	245.56 U J	1082.18 J	911.9 J
Cadmium	mg/kg	68.91	36.49 U	34.51 U	71.71	53.84
Chromium	mg/kg	117.15 U	109.57 U	92.04 U	106.84 U	107.87 U
Cobalt	mg/kg	111.63 U	111.89 U	93.14 U	106.51 U	109.19 U
Copper	mg/kg	41.39 J	23.54 J	11.79 U	37.36	40.73
Iron	mg/kg	20241.77 U	20166.75 U	15836.27 U	19379.35 U J	20684.24 U
Lead	mg/kg	1083.33	307.02	62.01	276.81	275.45
Manganese	mg/kg	472.08 U	561.04	348.72 U	711.63 J	1112.86 J
Mercury	mg/kg	11.71 U J	9.32 U J	7.89 U J	9.98 U J	10.11 U J
Nickel	mg/kg	23.56 U	23.97 U	20.34 U	23.2 U	23.35 U
Selenium	mg/kg	3.5 U	2.82 U	2.32 U	2.67 U	2.85 U
Silver	mg/kg	25.24 U J	25.64 U J	24.12 U J	24.55 U J	24.82 U J
Zinc	mg/kg	4420.46	1723.37	460.72	3819.62	3763.95

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-COMP1(6-12) 6 - 12 06/14/05	OU4-SS-15-COMP1(12-18) 12 - 18 06/14/05	OU4-SS-15-COMP2(0-1) 0 - 1 06/14/05	OU4-SS-15-COMP2(1-6) 1 - 6 06/14/05	OU4-SS-15-COMP2(6-12) 6 - 12 06/14/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	12.06 J	8.45 J	15.01 J	12.33 J	6.41 U
Barium	mg/kg	405.97 J	276.07 U J	1008.19 J	884.75 J	322.33 J
Cadmium	mg/kg	35.66 U	36.87 U	76.27	68.12	35.43 U
Chromium	mg/kg	106.78 U	105.45 U	107.75 U	111.79 U	102.16 U
Cobalt	mg/kg	114.54 U	117.53 U	106.26 U	116.95 U	111.72 U
Copper	mg/kg	16.66	13.33 U	49.62	30.41	12.93 U
Iron	mg/kg	22324.78	22750.04	19368.18 U	22918.59	21816.72
Lead	mg/kg	102.4	37.11 U	427.24	277.96	67.44
Manganese	mg/kg	1075.36 J	551.13 J	808.14 J	946.93 J	1063.32 J
Mercury	mg/kg	8.31 U J	8.44 U J	10.44 U J	10.05 U J	7.9 U J
Nickel	mg/kg	23.85 U	27.59	23.38 U	24.34 U	23.15 U
Selenium	mg/kg	2.38 U	2.63 U	2.76 U	2.69 U	2.51 U
Silver	mg/kg	25.05 U J	25.82 U J	24.91 U J	25.33 U J	24.79 U J
Zinc	mg/kg	1630.8	332.44	3967.4	3692.62	892.95

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-COMP2(12-18) 12 - 18 06/14/05	OU4-SS-15-COMP3(0-1) 0 - 1 06/14/05	OU4-SS-15-COMP3(1-6) 1 - 6 06/14/05	OU4-SS-15-COMP3(6-12) 6 - 12 06/14/05	OU4-SS-15-COMP3(12-18) 12 - 18 06/14/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	8.32 J	19.83 J	14.48 J	11.46 J	8.82 J
Barium	mg/kg	265.9 U J	951.89 J	1171.93 J	412.42 J	400.14 J
Cadmium	mg/kg	35.7 U	88.84	61.49	41.74	35.59 U
Chromium	mg/kg	103.03 U	105.58 U	115.33 U	104.73 U	104.29 U
Cobalt	mg/kg	114.54 U	106.89 U	119.49 U	114.9 U	120.76 U
Copper	mg/kg	19.35	55.8	50.93	14.4	16.65
Iron	mg/kg	22724.18	19629.66 J	23472.53	23431.39	25189.28
Lead	mg/kg	11.77 J	378.96	309.5	63.24	16.71 J
Manganese	mg/kg	963.06 J	905.32 J	1304.44 J	1056.18 J	872.3 J
Mercury	mg/kg	7.74 U J	10.25 U J	10.57 U J	8.54 U J	7.22 U J
Nickel	mg/kg	23.29 U	22.7 U	25.36 U	28.55	23.74 U
Selenium	mg/kg	2.26 U	2.91 U	2.97 U	2.47 U	2.29 U
Silver	mg/kg	25.06 U J	24.65 U J	25.35 U J	24.54 U J	25.09 U J
Zinc	mg/kg	89.85	4418.39	4836.41	2028.71	189.71

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-COMP4(0-1) 0 - 1 06/14/05	OU4-SS-15-COMP4(1-6) 1 - 6 06/14/05	OU4-SS-15-COMP4(6-12) 6 - 12 06/14/05	OU4-SS-15-COMP4(12-18) 12 - 18 06/14/05	OU4-SS-16-COMP1(0-1) 0 - 1 06/15/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	32.5 J	23.45 J	9.75 J	5.64 U	15.1 J
Barium	mg/kg	1122.12 J	1075.28 J	338.76 J	261.19 U J	936.44 J
Cadmium	mg/kg	82.13	55.18	58.66	35.41 U	35.84 U
Chromium	mg/kg	113.43 U	111.73 U	103.14 U	100.75 U	109.06 U
Cobalt	mg/kg	113.68 U	115.92 U	113.47 U	103.45 U	112.6 U
Copper	mg/kg	50	34.06	13.26 U	12.64 U	36.03
Iron	mg/kg	21531.9 J	22190.77	22235.81	19014.36 J	20851.54
Lead	mg/kg	795.21	561.68	69.37	45.61 J	403.48
Manganese	mg/kg	734.25 J	980.3 J	1129.33 J	951.76 J	503.85 J
Mercury	mg/kg	11.02 U J	10.74 U J	8.66 U J	8.29 U J	9.64 U J
Nickel	mg/kg	24.51 U	25.01 U	22.6 U	21.97 U	23.37 U
Selenium	mg/kg	3.49 U	3.11 U	2.52 U	2.37 U	2.79 U
Silver	mg/kg	24.9 U J	25.27 U J	24.69 U J	24.56 U J	25.15 U J
Zinc	mg/kg	5589.62	4720.08	1763.67	1459.05	1692.9

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-COMP1(1-6) 1 - 6 06/15/05	OU4-SS-16-COMP1(6-12) 6 - 12 06/15/05	OU4-SS-16-COMP1(12-18) 12 - 18 06/15/05	OU4-SS-16-COMP2(0-1) 0 - 1 06/15/05	OU4-SS-16-COMP2(1-6) 1 - 6 06/15/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	25.12 J	26.29 J	8.47 U	9.96 U	13.22 J
Barium	mg/kg	1737.36 J	553.07 J	351.39 J	764.8 J	1889.78 J
Cadmium	mg/kg	36.78 U	36.75 U	35 U	38.23	58.8
Chromium	mg/kg	118.49 U	110.79 U	92.84 U	98.75 U	114.97 U
Cobalt	mg/kg	121.02 U	121.46 U	97.2 U	86.67 U	101.84 U
Copper	mg/kg	41.6	40.6	12.18 U	19.21	38.17
Iron	mg/kg	23535.53	23688.93	16404.56 U	13533.15 U	17061.27 U
Lead	mg/kg	565.33	490.04	148.57	230.46	327.36
Manganese	mg/kg	644.05 J	628.09 J	532.84 J	290.62 UJ	470.03 J
Mercury	mg/kg	10.7 U J	9.5 U J	7.58 U J	8.87 U J	9.86 U J
Nickel	mg/kg	24.21 U	24.65 U	21.05 U	20.16 U	22.63 U
Selenium	mg/kg	3.17 U	2.97 U	2.49 U	2.64 U	2.82 U
Silver	mg/kg	25.84 U J	25.88 U J	24.45 U J	23.63 U J	25.44 U J
Zinc	mg/kg	2570.28	1538.92	128.05	1650.23	2735.33

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-COMP2(6-12) 6 - 12 06/15/05	OU4-SS-16-COMP2(12-18) 12 - 18 06/15/05	OU4-SS-16-COMP3(0-1) 0 - 1 06/15/05	OU4-SS-16-COMP3(1-6) 1 - 6 06/15/05	OU4-SS-16-COMP3(6-12) 6 - 12 06/15/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	8.69 U	10.53 J	12.71 U	14.71 J	10.16 U
Barium	mg/kg	378.56 J	510.84 J	1050.06 J	1566.12 J	772.79 J
Cadmium	mg/kg	34.92 U	34.14 U	65.12	62.21	35.9 U
Chromium	mg/kg	96.47 U	92.16 U	105.77 U	115.2 U	114.01 U
Cobalt	mg/kg	94 U	91.54 U	122.63 JQ	160.97 JQ	118.71 U
Copper	mg/kg	12.76 U	13.49	32.71	50.45	55.96
Iron	mg/kg	15060.74 U	14895.2 U	18329.94 U	22383.4	23535.07
Lead	mg/kg	160.8	101.86	370.16	432.17	203.45
Manganese	mg/kg	402.11 J	491.09 J	553.81 J	589.62 J	571.35 J
Mercury	mg/kg	8.28 U J	7.48 U J	9.35 U J	10.58 U J	11.05 JQ
Nickel	mg/kg	20.86 U	19.81 U	22.28 U	24.51 U	23.96 U
Selenium	mg/kg	2.51 U	2.4 U	2.89 U	2.94 U	2.78 U
Silver	mg/kg	24.45 U J	23.78 U J	24.73 U J	25.51 U J	25.3 U J
Zinc	mg/kg	1353.92	296.97	2053.64	2921.76	1618

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-COMP3(12-18) 12 - 18 06/15/05	OU4-SS-16-COMP4(0-1) 0 - 1 06/15/05	OU4-SS-16-COMP4(1-6) 1 - 6 06/15/05	OU4-SS-16-COMP4(6-12) 6 - 12 06/15/05	OU4-SS-16-COMP4(12-18) 12 - 18 06/15/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	5.05 U	23.07 J	26.34 J	30.32 J	13.33 J
Barium	mg/kg	258.09 U J	1219.09 J	1797.21 J	999.01 J	283.92 U J
Cadmium	mg/kg	34.8 U	39.71	73.34	48.78	35.21 U
Chromium	mg/kg	94.01 U	116.19 U	125.9 U	113.99 U	108.13 U
Cobalt	mg/kg	105.82 J Q	123.06 U	158.09 J	164.86 J	121.16 U
Copper	mg/kg	11.34 U	51.32	47.13	38.8	24.13
Iron	mg/kg	14719.71 U	24669.02	29247.36	27053.96	25272.77
Lead	mg/kg	35.7 J U	383.67	459.93	478.03	287.36
Manganese	mg/kg	393.54 J	535.56 J	628.52 J	733.63 J	668.55 J
Mercury	mg/kg	7.58 U J	9.98 U J	10.83 U J	13.22 J Q	18.89 J Q
Nickel	mg/kg	20.73 U	25.49 U	26.68 U	25.9 U	24.43 U
Selenium	mg/kg	2.38 U	2.87 U	3.06 U	3.25 U	2.81 U
Silver	mg/kg	24.21 U J	25.03 U J	26.28 U J	25.51 U J	24.68 U J
Zinc	mg/kg	515.91	2711.44	3117.87	2119.8	639.5

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-COMP5(0-1) 0 - 1 06/15/05	OU4-SS-16-COMP5(1-6) 1 - 6 06/15/05	OU4-SS-16-COMP5(6-12) 6 - 12 06/15/05	OU4-SS-16-COMP5(12-18) 12 - 18 06/15/05	OU4-SS-17-COMP1(0-1) 0 - 1 06/16/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	26.44 U	22.92 J	5.85 U	4.5 U	21.81 J
Barium	mg/kg	1149.25 J	866.16 J	250.96 U J	234.97 U J	1517.16 J
Cadmium	mg/kg	48.51	36.43	35.15 U	35.23 U	36.15 U
Chromium	mg/kg	101.83 U	107.01 U	96.22 U	91.7 U	111.35 U
Cobalt	mg/kg	93.45 U	102.75 U	94.62 U	85.42 U	108.59 U
Copper	mg/kg	43.87	27.51	12.02 U	11.78 U	34.22 J
Iron	mg/kg	14698.91 U	18302.42 U	15429.84 U	11739.67 U	19063.28 J
Lead	mg/kg	1758.68	520.8	53.85	19.37 U	314.83 J
Manganese	mg/kg	286.4 UJ	456.62 J	403.32 J	301.38 UJ	529.16 UJ
Mercury	mg/kg	10.4 U J	9.3 U J	7.22 U J	6.73 U J	9.16 U J
Nickel	mg/kg	20.54 U	21.94 U	21.24 U	20.02 U	23.82 U
Selenium	mg/kg	3.77 U	2.89 U	2.45 U	2.25 U	2.89 U
Silver	mg/kg	24.04 U J	24.57 U J	24.45 U J	24.48 U J	25.46 U
Zinc	mg/kg	2355.23	1569.91	363.29	139.86	2184.99

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-COMP1(1-6) 1 - 6 06/16/05	OU4-SS-17-COMP1(6-12) 6 - 12 06/16/05	OU4-SS-17-COMP1(12-18) 12 - 18 06/16/05	OU4-SS-17-COMP2(0-1) 0 - 1 06/16/05	OU4-SS-17-COMP2(1-6) 1 - 6 06/16/05
Metals - XRF (USEPA SW-846 62(						
Arsenic	mg/kg	14.25 J	12.03 J	9.57 J	20.98 J	24.1 J
Barium	mg/kg	2232.25 J	827.68 J	325.5 J	1082.73 J	1085.3 J
Cadmium	mg/kg	55.11	35.49 U	35.72 U	52.1	54.93
Chromium	mg/kg	149.24 J	103.22 U	104.44 U	113.41 U	114.07 U
Cobalt	mg/kg	108.31 U	98.51 U	110.13 U	120.26 U	118.75 U
Copper	mg/kg	35.7 J	15.22 J	13.43 U	33.41 J	35.34 J
Iron	mg/kg	18491.67 U	16632.51 U	19840.78 U	24318.31	23099.06
Lead	mg/kg	427.63 J	159.59 J	163.77 J	295.9 J	352.09 J
Manganese	mg/kg	567.66 UJ	415.15 UJ	841.18 J	503.97 UJ	550.25 UJ
Mercury	mg/kg	9.76 U J	8.22 U J	8.63 U J	9.74 U J	9.77 U J
Nickel	mg/kg	23.22 U	21.56 U	22.98 U	24.49 U	24.37 U
Selenium	mg/kg	3.09 U	2.64 U	2.68 U	2.8 U	2.82 U
Silver	mg/kg	25.48 U	24.8 U	25.15 U	24.99 U	25.48 U
Zinc	mg/kg	2670.6	1191.77	1631.42	2434.11	2638.08

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-COMP2(6-12) 6 - 12 06/16/05	OU4-SS-17-COMP2(12-18) 12 - 18 06/16/05
Metals - XRF (USEPA SW-846 62(			
Arsenic	mg/kg	9.85 U	20.15 J
Barium	mg/kg	768.47 J	687.03 J
Cadmium	mg/kg	35.69 U	57.89
Chromium	mg/kg	98.92 U	100.83 U
Cobalt	mg/kg	96.93 U	102.56 U
Copper	mg/kg	26.38 J	36.24 J
Iron	mg/kg	15586.54 J	17719.84 J
Lead	mg/kg	198.51 J	171.1 J
Manganese	mg/kg	451.4 UJ	576.37 UJ
Mercury	mg/kg	9.19 U J	9.03 U J
Nickel	mg/kg	21.29 U	20.88 U
Selenium	mg/kg	2.56 U	2.62 U
Silver	mg/kg	24.93 U	24.64 U
Zinc	mg/kg	1393.94	1351.85

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-061605 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	219.33	208	105.45	Acceptable
Barium	781.99	879	88.96	Acceptable
Cadmium	135.23	141	95.91	Acceptable
Chromium	239.5	132	181.44	Not Acceptable
Cobalt	158.13	131	120.71	Not Acceptable
Copper	120.51	98.8	121.97	Not Acceptable
Iron	22030.24	24400	90.29	Acceptable
Lead	215.05	179	120.14	~~Not~~ Acceptable
Manganese	445.02	591	75.30	Not Acceptable
Mercury	80.35	11.2	717.41	Not Acceptable
Nickel	99.66	80.1	124.42	Not Acceptable
Selenium	202.03	181	111.62	Acceptable
Silver	133.12	147	90.56	Acceptable
Zinc	336.08	263	127.79	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-061605 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	227.09	208	109.18	Acceptable
Barium	452.69	879	51.50	Not Acceptable
Cadmium	143.3	141	101.63	Acceptable
Chromium	226.39	132	171.51	Not Acceptable
Cobalt	170.89	131	130.45	Not Acceptable
Copper	119.22	98.8	120.67	Not Acceptable
Iron	20777.8	24400	85.15	Acceptable
Lead	210.15	179	117.40	Acceptable
Manganese	484.24	591	81.94	Acceptable
Mercury	85.32	11.2	761.79	Not Acceptable
Nickel	72.93	80.1	91.05	Acceptable
Selenium	201.9	181	111.55	Acceptable
Silver	82.53	147	56.14	Not Acceptable
Zinc	311.55	263	118.46	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-061605 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	234.14	208	112.57	Acceptable
Barium	616.84	879	70.18	Not Acceptable
Cadmium	147.26	141	104.44	Acceptable
Chromium	186.85	132	141.55	Not Acceptable
Cobalt	146.62	131	111.92	Acceptable
Copper	115.91	98.8	117.32	Acceptable
Iron	22543.77	24400	92.39	Acceptable
Lead	209.54	179	117.06	Acceptable
Manganese	496.94	591	84.08	Acceptable
Mercury	78.2	11.2	698.21	Not Acceptable
Nickel	82.4	80.1	102.87	Acceptable
Selenium	213.52	181	117.97	Acceptable
Silver	93.11	147	63.34	Not Acceptable
Zinc	296.24	263	112.64	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-061605 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	225.93	208	108.62	Acceptable
Barium	736.28	879	83.76	Acceptable
Cadmium	139.88	141	99.21	Acceptable
Chromium	237.08	132	179.61	Not Acceptable
Cobalt	202.64	131	154.69	Not Acceptable
Copper	106.29	98.8	107.58	Acceptable
Iron	21025.2	24400	86.17	Acceptable
Lead	209.6	179	117.09	Acceptable
Manganese	430.91	591	72.91	Not Acceptable
Mercury	79.61	11.2	710.80	Not Acceptable
Nickel	86.1	80.1	107.49	Acceptable
Selenium	210.43	181	116.26	Acceptable
Silver	88.92	147	60.49	Not Acceptable
Zinc	300.62	263	114.30	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD5-061605 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	225.71	208	108.51	Acceptable
Barium	612.15	879	69.64	Not Acceptable
Cadmium	159.04	141	112.79	Acceptable
Chromium	206.47	132	156.42	Not Acceptable
Cobalt	232.78	131	177.69	Not Acceptable
Copper	110.02	98.8	111.36	Acceptable
Iron	22755.94	24400	93.26	Acceptable
Lead	215.77	179	120.54	Not Acceptable
Manganese	539.03	591	91.21	Acceptable
Mercury	82.79	11.2	739.20	Not Acceptable
Nickel	88.29	80.1	110.22	Acceptable
Selenium	207.61	181	114.70	Acceptable
Silver	83.32	147	56.68	Not Acceptable
Zinc	304.74	263	115.87	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD6-061605 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.34	208	106.41	Acceptable
Barium	607.67	879	69.13	Not Acceptable
Cadmium	155.41	141	110.22	Acceptable
Chromium	236.67	132	179.30	Not Acceptable
Cobalt	195.2	131	149.01	Not Acceptable
Copper	130.96	98.8	132.55	Not Acceptable
Iron	23112.1	24400	94.72	Acceptable
Lead	214.65	179	119.92	Acceptable
Manganese	433.02	591	73.27	Not Acceptable
Mercury	84.35	11.2	753.13	Not Acceptable
Nickel	87.21	80.1	108.88	Acceptable
Selenium	212.12	181	117.19	Acceptable
Silver	133.8	147	91.02	Acceptable
Zinc	291.73	263	110.92	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS							
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-061605 06/16/05	OU4-SS-MBLANK2-061605 06/16/05	OU4-SS-MBLANK3-061605 06/16/05	OU4-SS-MBLANK4-061605 06/16/05	OU4-SS-MBLANK5-061605 06/16/05	OU4-SS-MBLANK6-061605 06/16/05
Metals - XRF							
Iron	mg/kg	**3876.95**	**3780.83**	**4331.56**	**3176.19**	**4046.24**	**3397.75**
Lead	mg/kg	5.09 U	**6.15**	**6.69**	**9.73**	**6.19**	5.28 U
Manganese	mg/kg	**62.35**	**100.78**	**77.23**	**73.85**	**53.63**	**134.4**
Zinc	mg/kg	**8.32**	6.74 U	**8.06**	6.66 U	6.77 U	6.86 U

Note:
Only detected analytes on specified day of analysis are summarized.

EQUIPMENT BLANKS							
Sample ID: Date Collected:	Units	OU4-SS-EBLANK1-061605 06/16/05	OU4-SS-EBLANK2-061605 06/16/05	OU4-SS-EBLANK3-061605 06/16/05	OU4-SS-EBLANK4-061605 06/16/05	OU4-SS-EBLANK5-061605 06/16/05	OU4-SS-EBLANK6-061605 06/16/05
Analytes associated with the equipment blanks were not detected.							

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-11-COMP3(12-18) 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-1 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-2 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-3 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-4 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-5 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-6 12 - 18 06/09/05	OU4-SS-11-COMP3(12-18)-7 12 - 18 06/09/05			
Metals - XRF (USEPA SW-846 6200)													
Non-Detects Adjusted to Full Detection Limit Value											**SD**	**Mean**	**RSD**
Arsenic	mg/kg	8.6	20.84	31.78	31 85	17.8	22.16	32.02	37.24	34.61	7.18571	28.5375	25.17988
Barium	mg/kg	11000	393.6	633.09	678.07	655.43	438.52	523.73	702 36	838 53	147.1777	607 9163	24.2102
Cadmium	mg/kg	78	36.17	46 21	35.77	35.87	35.52	36.44	51.14	35.43	6.082451	39.06875	15.56858
Chromium	mg/kg	780	117 02	121.75	122.62	122.27	117.65	120.54	121 99	120.74	2.126699	120 5725	1.763834
Cobalt	mg/kg	9400	151 67	158.3	210.12	158.09	157.15	157.68	159 37	157 55	18 88261	163.7413	11.53198
Copper	mg/kg	6200	48 9	71.8	65 52	70.96	65.74	60.83	67.45	67.76	7.296412	64 87	11.24774
Iron	mg/kg	46000	37996.14	43452.48	43074.4	43103.95	42697.81	43091.84	43545.86	42921.62	1834.042	42485.51	4.316865
Lead	mg/kg	240	547 25	614.36	627.4	647.42	633.36	631.64	642.41	628 29	31 61715	621 5163	5.087099
Manganese	mg/kg	3600	480.41	559.95	592.11	560.11	536.41	584.48	575 21	544.41	35 29613	554.1363	6.369576
Mercury	mg/kg	15.6	17.83	21 06	20.1	25 22	20.46	22.66	25	19.98	2.575613	21.53875	11.95804
Nickel	mg/kg	3200	27.75	29 24	29 58	40.18	28.97	29.19	29.27	32.13	3.98674	30.78875	12.94869
Selenium	mg/kg	780	3.25	3.17	3.15	3.14	3.13	3 29	3.22	3.19	0.056758	3.1925	1.777843
Silver	mg/kg	780	25.36	25 05	24 95	25.04	24.87	24.96	25.11	24.93	0.152403	25.03375	0.608792
Zinc	mg/kg	46000	3236.71	3357.76	3405.21	3348 62	3363 33	3359.42	3403.28	3377.47	52.73826	3356.475	1 57124

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF062005

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF062005 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-01-01(0-1)	Soil	6/20/2005				X	
OU4-SS-01-02(0-1)	Soil	6/20/2005				X	
OU4-SS-01-03(0-1)	Soil	6/20/2005				X	
OU4-SS-01-04(0-1)	Soil	6/20/2005				X	
OU4-SS-01-05(0-1)	Soil	6/20/2005				X	
OU4-SS-01-01(1-6)	Soil	6/20/2005				X	
OU4-SS-01-02(1-6)	Soil	6/20/2005				X	
OU4-SS-01-03(1-6)	Soil	6/20/2005				X	
OU4-SS-01-04(1-6)	Soil	6/20/2005				X	
OU4-SS-01-05(1-6)	Soil	6/20/2005				X	
OU4-SS-01-05(1-6)-DUP	Soil	6/20/2005				X	
OU4-SS-01-06(0-1)	Soil	6/20/2005				X	
OU4-SS-01-07(0-1)	Soil	6/20/2005				X	
OU4-SS-01-08(0-1)	Soil	6/20/2005				X	
OU4-SS-01-09(0-1)	Soil	6/20/2005				X	
OU4-SS-01-10(0-1)	Soil	6/20/2005				X	
OU4-SS-01-06(1-6)	Soil	6/20/2005				X	
OU4-SS-01-07(1-6)	Soil	6/20/2005				X	
OU4-SS-01-08(1-6)	Soil	6/20/2005				X	
OU4-SS-01-09(1-6)	Soil	6/20/2005				X	
OU4-SS-01-10(1-6)	Soil	6/20/2005				X	
OU4-SS-01-11(1-6)	Soil	6/20/2005				X	
OU4-SS-01-12(1-6)	Soil	6/20/2005				X	
OU4-SS-01-13(1-6)	Soil	6/20/2005				X	
OU4-SS-01-14(1-6)	Soil	6/20/2005				X	
OU4-SS-01-15(1-6)	Soil	6/20/2005				X	
OU4-SS-01-15(1-6)-DUP	Soil	6/20/2005				X	
OU4-SS-01-11(6-12)	Soil	6/20/2005				X	
OU4-SS-01-12(6-12)	Soil	6/20/2005				X	
OU4-SS-01-13(6-12)	Soil	6/20/2005				X	
OU4-SS-01-14(6-12)	Soil	6/20/2005				X	
OU4-SS-01-15(6-12)	Soil	6/20/2005				X	
OU4-SS-01-11(12-18)	Soil	6/20/2005				X	
OU4-SS-01-12(12-18)	Soil	6/20/2005				X	
OU4-SS-01-13(12-18)	Soil	6/20/2005				X	
OU4-SS-01-14(12-18)	Soil	6/20/2005				X	
OU4-SS-01-15(12-18)	Soil	6/20/2005				X	
OU4-SS-01-16(0-1)	Soil	6/20/2005				X	
OU4-SS-01-17(0-1)	Soil	6/20/2005				X	
OU4-SS-01-18(0-1)	Soil	6/20/2005				X	
OU4-SS-01-19(0-1)	Soil	6/20/2005				X	
OU4-SS-01-20(0-1)	Soil	6/20/2005				X	
OU4-SS-01-16(1-6)	Soil	6/20/2005				X	
OU4-SS-01-17(1-6)	Soil	6/20/2005				X	
OU4-SS-01-18(1-6)	Soil	6/20/2005				X	
OU4-SS-01-19(1-6)	Soil	6/20/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-01-20(1-6)	Soil	6/20/2005				X	
OU4-SS-01-20(1-6)-DUP	Soil	6/20/2005				X	
OU4-SS-01-16(12-18)	Soil	6/20/2005				X	
OU4-SS-01-17(12-18)	Soil	6/20/2005				X	
OU4-SS-01-18(12-18)	Soil	6/20/2005				X	
OU4-SS-01-19(12-18)	Soil	6/20/2005				X	
OU4-SS-01-20(12-18)	Soil	6/20/2005				X	
OU4-SS-01-21(1-6)	Soil	6/20/2005				X	
OU4-SS-01-22(1-6)	Soil	6/20/2005				X	
OU4-SS-01-23(1-6)	Soil	6/20/2005				X	
OU4-SS-01-24(1-6)	Soil	6/20/2005				X	
OU4-SS-01-21(6-12)	Soil	6/20/2005				X	
OU4-SS-01-22(6-12)	Soil	6/20/2005				X	
OU4-SS-01-23(6-12)	Soil	6/20/2005				X	
OU4-SS-01-24(6-12)	Soil	6/20/2005				X	
OU4-SS-01-24(6-12)-DUP	Soil	6/20/2005				X	
OU4-SS-02-01(0-1)	Soil	6/20/2005				X	
OU4-SS-02-02(0-1)	Soil	6/20/2005				X	
OU4-SS-02-03(0-1)	Soil	6/20/2005				X	
OU4-SS-02-04(0-1)	Soil	6/20/2005				X	
OU4-SS-02-01(1-6)	Soil	6/20/2005				X	
OU4-SS-02-02(1-6)	Soil	6/20/2005				X	
OU4-SS-02-03(1-6)	Soil	6/20/2005				X	
OU4-SS-02-04(1-6)	Soil	6/20/2005				X	
OU4-SS-02-05(1-6)	Soil	6/20/2005				X	
OU4-SS-02-06(1-6)	Soil	6/20/2005				X	
OU4-SS-02-07(1-6)	Soil	6/20/2005				X	
OU4-SS-02-08(1-6)	Soil	6/20/2005				X	
OU4-SS-02-09(1-6)	Soil	6/20/2005				X	
OU4-SS-02-05(12-18)	Soil	6/20/2005				X	
OU4-SS-02-06(12-18)	Soil	6/20/2005				X	
OU4-SS-02-07(12-18)	Soil	6/20/2005				X	
OU4-SS-02-08(12-18)	Soil	6/20/2005				X	
OU4-SS-02-09(12-18)	Soil	6/20/2005				X	
OU4-SS-02-09(12-18)-DUP	Soil	6/20/2005				X	
OU4-SS-02-10(0-1)	Soil	6/20/2005				X	
OU4-SS-02-11(0-1)	Soil	6/20/2005				X	
OU4-SS-02-12(0-1)	Soil	6/20/2005				X	
OU4-SS-02-13(0-1)	Soil	6/20/2005				X	
OU4-SS-02-14(0-1)	Soil	6/20/2005				X	
OU4-SS-02-10(1-6)	Soil	6/20/2005				X	
OU4-SS-02-11(1-6)	Soil	6/20/2005				X	
OU4-SS-02-12(1-6)	Soil	6/20/2005				X	
OU4-SS-02-13(1-6)	Soil	6/20/2005				X	
OU4-SS-02-14(1-6)	Soil	6/20/2005				X	
OU4-SS-02-10(6-12)	Soil	6/20/2005				X	
OU4-SS-02-11(6-12)	Soil	6/20/2005				X	
OU4-SS-02-12(6-12)	Soil	6/20/2005				X	
OU4-SS-02-13(6-12)	Soil	6/20/2005				X	
OU4-SS-02-14(6-12)	Soil	6/20/2005				X	
OU4-SS-02-15(1-6)	Soil	6/20/2005				X	
OU4-SS-02-16(1-6)	Soil	6/20/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-02-17(1-6)	Soil	6/20/2005				X	
OU4-SS-02-18(1-6)	Soil	6/20/2005				X	
OU4-SS-02-19(1-6)	Soil	6/20/2005				X	
OU4-SS-02-19(1-6)-DUP	Soil	6/20/2005				X	
OU4-SS-02-15(6-12)	Soil	6/20/2005				X	
OU4-SS-02-16(6-12)	Soil	6/20/2005				X	
OU4-SS-02-17(6-12)	Soil	6/20/2005				X	
OU4-SS-02-18(6-12)	Soil	6/20/2005				X	
OU4-SS-02-19(6-12)	Soil	6/20/2005				X	
OU4-SS-02-20(0-1)	Soil	6/20/2005				X	
OU4-SS-02-21(0-1)	Soil	6/20/2005				X	
OU4-SS-02-22(0-1)	Soil	6/20/2005				X	
OU4-SS-02-23(0-1)	Soil	6/20/2005				X	
OU4-SS-02-20(1-6)	Soil	6/20/2005				X	
OU4-SS-02-21(1-6)	Soil	6/20/2005				X	
OU4-SS-02-22(1-6)	Soil	6/20/2005				X	
OU4-SS-02-23(1-6)	Soil	6/20/2005				X	
OU4-SS-02-20(6-12)	Soil	6/20/2005				X	
OU4-SS-02-21(6-12)	Soil	6/20/2005				X	
OU4-SS-02-22(6-12)	Soil	6/20/2005				X	
OU4-SS-02-23(6-12)	Soil	6/20/2005				X	
OU4-SS-02-23(6-12)-DUP	Soil	6/20/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

No target analytes were detected in the associated blanks.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

- All associated calibration standards exhibited acceptable recoveries.

4. Precision Measurement

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-14-COMP4(0-1). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-01-05(1-6)/ OU4-SS-01-05(1-6)-DUP	Arsenic	21.79		17.13		23.9
OU4-SS-01-15(1-6)/ OU4-SS-01-15(1-6)-DUP	Arsenic	21.14		12.23	U	AC

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-01-20(1-6)/ OU4-SS-01-20(1-6)-DUP	Arsenic	20.84		18.06		14.3
OU4-SS-01-24(6-12)/ OU4-SS-01-24(6-12)-DUP	Arsenic	9.56	U	9.9		AC
OU4-SS-02-09(12-18)/ OU4-SS-02-09(12-18)-DUP	Arsenic	7.03		8.02		13.2
OU4-SS-02-19(1-6)/ OU4-SS-02-19(1-6)-DUP	Arsenic	28.25		37.04		26.9
OU4-SS-02-23(6-12)/ OU4-SS-02-23(6-12)-DUP	Arsenic	8.51		6.96	U	AC

ND not detected.

AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. System Performance and Overall Assessment

Sample results exhibiting a concentration less than the MDL were qualified as estimated qualitatively (JQ). It should be noted that any data bearing this qualification can not be used quantitatively.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/20/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-062005	QC		QC
2	733	OU4-SS-EBLANK1-062005	QC		QC
3	733	OU4-SS-MBLANK1-062005	QC		QC
4	733	OU4-SS-CLPSTD1-062005	QC		QC
5	733	OU4-SS-14-COMP4(0-1)-1	QC		QC
6	733	OU4-SS-14-COMP4(0-1)-2	QC		QC
7	733	OU4-SS-14-COMP4(0-1)-3	QC		QC
8	733	OU4-SS-14-COMP4(0-1)-4	QC		QC
9	733	OU4-SS-14-COMP4(0-1)-5	QC		QC
10	733	OU4-SS-14-COMP4(0-1)-6	QC		QC
11	733	OU4-SS-14-COMP4(0-1)-7	QC		QC
12	733	OU4-SS-01-01(0-1)	FS	01	W11
13	733	OU4-SS-01-02(0-1)	FS	01	W11
14	733	OU4-SS-01-03(0-1)	FS	01	W11
15	733	OU4-SS-01-04(0-1)	FS	01	W11
16	733	OU4-SS-01-05(0-1)	FS	01	W11
17	733	OU4-SS-01-01(1-6)	FS	01	W11
18	733	OU4-SS-01-02(1-6)	FS	01	W11
19	733	OU4-SS-01-03(1-6)	FS	01	W11
20	733	OU4-SS-01-04(1-6)	FS	01	W11
21	733	OU4-SS-01-05(1-6)	FS	01	W11
22	733	OU4-SS-01-05(1-6)-DUP	QC		QC
23	733	OU4-SS-EBLANK2-062005	QC		QC
24	733	OU4-SS-MBLANK2-062005	QC		QC
25	733	OU4-SS-CLPSTD2-062005	QC		QC
26	733	OU4-SS-01-06(0-1)	FS	01	W11
27	733	OU4-SS-01-07(0-1)	FS	01	W11
28	733	OU4-SS-01-08(0-1)	FS	01	W11
29	733	OU4-SS-01-09(0-1)	FS	01	W11
30	733	OU4-SS-01-10(0-1)	FS	01	W11
31	733	OU4-SS-01-06(1-6)	FS	01	W11
32	733	OU4-SS-01-07(1-6)	FS	01	W11
33	733	OU4-SS-01-08(1-6)	FS	01	W11
34	733	OU4-SS-01-09(1-6)	FS	01	W11
35	733	OU4-SS-01-10(1-6)	FS	01	W11
36	733	OU4-SS-01-11(1-6)	FS	01	W11
37	733	OU4-SS-01-12(1-6)	FS	01	W11

Electronic Log for 06/20/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-01-13(1-6)	FS	01	W11
39	733	OU4-SS-01-14(1-6)	FS	01	W11
40	733	OU4-SS-01-15(1-6)	FS	01	W11
41	733	OU4-SS-01-15(1-6)-DUP	QC		QC
42	733	OU4-SS-EBLANK3-062005	QC		QC
43	733	OU4-SS-MBLANK3-062005	QC		QC
44	733	OU4-SS-CLPSTD3-062005	QC		QC
45	733	OU4-SS-01-11(6-12)	FS	01	W11
46	733	OU4-SS-01-12(6-12)	FS	01	W11
47	733	OU4-SS-01-13(6-12)	FS	01	W11
48	733	OU4-SS-01-14(6-12)	FS	01	W11
49	733	OU4-SS-01-15(6-12)	FS	01	W11
50	733	OU4-SS-01-11(12-18)	FS	01	W11
51	733	OU4-SS-01-12(12-18)	FS	01	W11
52	733	OU4-SS-01-13(12-18)	FS	01	W11
53	733	OU4-SS-01-14(12-18)	FS	01	W11
54	733	OU4-SS-01-15(12-18)	FS	01	W11
55	733	OU4-SS-01-16(0-1)	FS	01	W11
56	733	OU4-SS-01-17(0-1)	FS	01	W11
57	733	OU4-SS-01-18(0-1)	FS	01	W11
58	733	OU4-SS-01-19(0-1)	FS	01	W11
59	733	OU4-SS-01-20(0-1)	FS	01	W11
60	733	OU4-SS-01-16(1-6)	FS	01	W11
61	733	OU4-SS-01-17(1-6)	FS	01	W11
62	733	OU4-SS-01-18(1-6)	FS	01	W11
63	733	OU4-SS-01-19(1-6)	FS	01	W11
64	733	OU4-SS-01-20(1-6)	FS	01	W11
65	733	OU4-SS-01-20(1-6)-DUP	QC		QC
66	733	OU4-SS-EBLANK4-062005	QC		QC
67	733	OU4-SS-MBLANK4-062005	QC		QC
68	733	OU4-SS-CLPSTD4-062005	QC		QC
69	733	OU4-SS-01-16(12-18)	FS	01	W11
70	733	OU4-SS-01-17(12-18)	FS	01	W11
71	733	OU4-SS-01-18(12-18)	FS	01	W11
72	733	OU4-SS-01-19(12-18)	FS	01	W11
73	733	OU4-SS-01-20(12-18)	FS	01	W11
74	733	OU4-SS-01-21(1-6)	FS	01	W11

Electronic Log for 06/20/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-01-22(1-6)	FS	01	W11
76	733	OU4-SS-01-23(1-6)	FS	01	W11
77	733	OU4-SS-01-24(1-6)	FS	01	W11
78	733	OU4-SS-01-21(6-12)	FS	01	W11
79	733	OU4-SS-01-22(6-12)	FS	01	W11
80	733	OU4-SS-01-23(6-12)	FS	01	W11
81	733	OU4-SS-01-24(6-12)	FS	01	W11
82	733	OU4-SS-01-24(6-12)-DUP	QC		QC
83	733	OU4-SS-STD2-062005	QC		QC
84	733	OU4-SS-EBLANK5-062005	QC		QC
85	733	OU4-SS-MBLANK5-062005	QC		QC
86	733	OU4-SS-CLPSTD5-062005	QC		QC
87	733	OU4-SS-02-01(0-1)	FS	02	S11
88	733	OU4-SS-02-02(0-1)	FS	02	S11
89	733	OU4-SS-02-03(0-1)	FS	02	S11
90	733	OU4-SS-02-04(0-1)	FS	02	S11
91	733	OU4-SS-02-01(1-6)	FS	02	S11
92	733	OU4-SS-02-02(1-6)	FS	02	S11
93	733	OU4-SS-02-03(1-6)	FS	02	S11
94	733	OU4-SS-02-04(1-6)	FS	02	S11
95	733	OU4-SS-02-05(1-6)	FS	02	S11
96	733	OU4-SS-02-06(1-6)	FS	02	S11
97	733	OU4-SS-02-07(1-6)	FS	02	S11
98	733	OU4-SS-02-08(1-6)	FS	02	S11
99	733	OU4-SS-02-09(1-6)	FS	02	S11
100	733	OU4-SS-02-05(12-18)	FS	02	S11
101	733	OU4-SS-02-06(12-18)	FS	02	S11
102	733	OU4-SS-02-07(12-18)	FS	02	S11
103	733	OU4-SS-02-08(12-18)	FS	02	S11
104	733	OU4-SS-02-09(12-18)	FS	02	S11
105	733	OU4-SS-02-09(12-18)-DUP	QC		QC
106	733	OU4-SS-EBLANK6-062005	QC		QC
107	733	OU4-SS-MBLANK6-062005	QC		QC
108	733	OU4-SS-CLPSTD6-062005	QC		QC
109	733	OU4-SS-02-10(0-1)	FS	02	S11
110	733	OU4-SS-02-11(0-1)	FS	02	S11
111	733	OU4-SS-02-12(0-1)	FS	02	S11

Electronic Log for 06/20/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
112	733	OU4-SS-02-13(0-1)	FS	02	S11
113	733	OU4-SS-02-14(0-1)	FS	02	S11
114	733	OU4-SS-02-10(1-6)	FS	02	S11
115	733	OU4-SS-02-11(1-6)	FS	02	S11
116	733	OU4-SS-02-12(1-6)	FS	02	S11
117	733	OU4-SS-02-13(1-6)	FS	02	S11
118	733	OU4-SS-02-14(1-6)	FS	02	S11
119	733	OU4-SS-02-10(6-12)	FS	02	S11
120	733	OU4-SS-02-11(6-12)	FS	02	S11
121	733	OU4-SS-02-12(6-12)	FS	02	S11
122	733	OU4-SS-02-13(6-12)	FS	02	S11
123	733	OU4-SS-02-14(6-12)	FS	02	S11
124	733	OU4-SS-02-15(1-6)	FS	02	S11
125	733	OU4-SS-02-16(1-6)	FS	02	S11
126	733	OU4-SS-02-17(1-6)	FS	02	S11
127	733	OU4-SS-02-18(1-6)	FS	02	S11
128	733	OU4-SS-02-19(1-6)	FS	02	S11
129	733	OU4-SS-02-19(1-6)-DUP	QC		QC
130	733	OU4-SS-EBLANK7-062005	QC		QC
131	733	OU4-SS-MBLANK7-062005	QC		QC
132	733	OU4-SS-CLPSTD7-062005	QC		QC
133	733	OU4-SS-02-15(6-12)	FS	02	S11
134	733	OU4-SS-02-16(6-12)	FS	02	S11
135	733	OU4-SS-02-17(6-12)	FS	02	S11
136	733	OU4-SS-02-18(6-12)	FS	02	S11
137	733	OU4-SS-02-19(6-12)	FS	02	S11
138	733	OU4-SS-02-20(0-1)	FS	02	S11
139	733	OU4-SS-02-21(0-1)	FS	02	S11
140	733	OU4-SS-02-22(0-1)	FS	02	S11
141	733	OU4-SS-02-23(0-1)	FS	02	S11
142	733	OU4-SS-02-20(1-6)	FS	02	S11
143	733	OU4-SS-02-21(1-6)	FS	02	S11
144	733	OU4-SS-02-22(1-6)	FS	02	S11
145	733	OU4-SS-02-23(1-6)	FS	02	S11
146	733	OU4-SS-02-20(6-12)	FS	02	S11
147	733	OU4-SS-02-21(6-12)	FS	02	S11
148	733	OU4-SS-02-22(6-12)	FS	02	S11

Electronic Log for 06/20/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
149	733	OU4-SS-02-23(6-12)	FS	02	S11
150	733	OU4-SS-02-23(6-12)-DUP	QC		QC
151	733	OU4-SS-EBLANK8-062005	QC		QC
152	733	OU4-SS-MBLANK8-062005	QC		QC
153	733	OU4-SS-CLPSTD8-062005	QC		QC
154	733	OU4-SS-STD3-062005	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-01(0-1) 0 - 1 06/20/05	OU4-SS-01-01(1-6) 1 - 6 06/20/05	OU4-SS-01-02(0-1) 0 - 1 06/20/05	OU4-SS-01-02(1-6) 1 - 6 06/20/05	OU4-SS-01-03(0-1) 0 - 1 06/20/05	OU4-SS-01-03(1-6) 1 - 6 06/20/05	OU4-SS-01-04(0-1) 0 - 1 06/20/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	mg/kg	19.02	30.48	20.24	11.06 U	25.4	16.38 U	21.59

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-04(1-6) 1 - 6 06/20/05	OU4-SS-01-05(0-1) 0 - 1 06/20/05	OU4-SS-01-05(1-6) 1 - 6 06/20/05	OU4-SS-01-06(0-1) 0 - 1 06/20/05	OU4-SS-01-06(1-6) 1 - 6 06/20/05	OU4-SS-01-07(0-1) 0 - 1 06/20/05	OU4-SS-01-07(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	20.78	37.11	21.79	27.57	30.44	17.7	9.33

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-08(0-1) 0 - 1 06/20/05	OU4-SS-01-08(1-6) 1 - 6 06/01/05	OU4-SS-01-09(0-1) 0 - 1 06/20/05	OU4-SS-01-09(1-6) 1 - 6 06/20/05	OU4-SS-01-10(0-1) 0 - 1 06/20/05	OU4-SS-01-10(1-6) 1 - 6 06/20/05	OU4-SS-01-11(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	13.24 U	58.27	10.63 U	42.77	17.62	20.33	12.26

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-11(6-12) 6 - 12 06/01/05	OU4-SS-01-11(12-18) 12 - 18 06/20/05	OU4-SS-01-12(1-6) 1 - 6 06/20/05	OU4-SS-01-12(6-12) 6 - 12 06/20/05	OU4-SS-01-12(12-18) 12 - 18 06/20/05	OU4-SS-01-13(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	63.29	5.42	18.01	10.81	5 U	11.03

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-13(6-12) 6 - 12 06/20/05	OU4-SS-01-13(12-18) 12 - 18 06/20/05	OU4-SS-01-14(1-6) 1 - 6 06/20/05	OU4-SS-01-14(6-12) 6 - 12 06/20/05	OU4-SS-01-14(12-18) 12 - 18 06/20/05	OU4-SS-01-15(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	17.7	11.83	10.22	17.08	6.46	21.14

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-15(6-12) 6 - 12 06/20/05	OU4-SS-01-15(12-18) 12 - 18 06/20/05	OU4-SS-01-16(0-1) 0 - 1 06/20/05	OU4-SS-01-16(1-6) 1 - 6 06/20/05	OU4-SS-01-16(12-18) 12 - 18 06/01/05	OU4-SS-01-17(0-1) 0 - 1 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	24.17	20.2	24.56	26.33	69.85	14.72

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-17(1-6) 1 - 6 06/20/05	OU4-SS-01-17(12-18) 12 - 18 06/20/05	OU4-SS-01-18(0-1) 0 - 1 06/20/05	OU4-SS-01-18(1-6) 1 - 6 06/20/05	OU4-SS-01-18(12-18) 12 - 18 06/20/05	OU4-SS-01-19(0-1) 0 - 1 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.77	6.42 U	13.68 U	11.38 U	4.62 U	16.04

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-19(1-6) 1 - 6 06/20/05	OU4-SS-01-19(12-18) 12 - 18 06/20/05	OU4-SS-01-20(0-1) 0 - 1 06/20/05	OU4-SS-01-20(1-6) 1 - 6 06/20/05	OU4-SS-01-20(12-18) 12 - 18 06/20/05	OU4-SS-01-21(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.88 U	14.35	21.9 U	20.84	4.96 U	32.2

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-21(6-12) 6 - 12 06/20/05	OU4-SS-01-22(1-6) 1 - 6 06/20/05	OU4-SS-01-22(6-12) 6 - 12 06/20/05	OU4-SS-01-23(1-6) 1 - 6 06/20/05	OU4-SS-01-23(6-12) 6 - 12 06/20/05	OU4-SS-01-24(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	6.38	21.45	5.71 U	16.07 U	8.67	15.64 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-24(6-12) 6 - 12 06/20/05	OU4-SS-02-01(0-1) 0 - 1 06/20/05	OU4-SS-02-01(1-6) 1 - 6 06/20/05	OU4-SS-02-02(0-1) 0 - 1 06/20/05	OU4-SS-02-02(1-6) 1 - 6 06/20/05	OU4-SS-02-03(0-1) 0 - 1 06/20/05	OU4-SS-02-03(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	9.56 U	10.64	38.76	9.24	40.68	12.78 U	42.64

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-04(0-1) 0 - 1 06/20/05	OU4-SS-02-04(1-6) 1 - 6 06/20/05	OU4-SS-02-05(1-6) 1 - 6 06/20/05	OU4-SS-02-05(12-18) 12 - 18 06/20/05	OU4-SS-02-06(1-6) 1 - 6 06/20/05	OU4-SS-02-06(12-18) 12 - 18 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	14.54	21.56	10.21	9.49	9.36	4.91

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-07(1-6) 1 - 6 06/20/05	OU4-SS-02-07(12-18) 12 - 18 06/20/05	OU4-SS-02-08(1-6) 1 - 6 06/20/05	OU4-SS-02-08(12-18) 12 - 18 06/20/05	OU4-SS-02-09(1-6) 1 - 6 06/20/05	OU4-SS-02-09(12-18) 12 - 18 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	12.79 U	14.31	7.62	8.72	10.06	7.03

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-10(0-1) 0 - 1 06/20/05	OU4-SS-02-10(1-6) 1 - 6 06/20/05	OU4-SS-02-10(6-12) 6 - 12 06/20/05	OU4-SS-02-11(0-1) 0 - 1 06/20/05	OU4-SS-02-11(1-6) 1 - 6 06/20/05	OU4-SS-02-11(6-12) 6 - 12 06/20/05	OU4-SS-02-12(0-1) 0 - 1 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	6.23 U	10.37	11.55	6.13 U	15.08	6.37	7.54

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-12(1-6) 1 - 6 06/20/05	OU4-SS-02-12(6-12) 6 - 12 06/20/05	OU4-SS-02-13(0-1) 0 - 1 06/20/05	OU4-SS-02-13(1-6) 1 - 6 06/20/05	OU4-SS-02-13(6-12) 6 - 12 06/20/05	OU4-SS-02-14(0-1) 0 - 1 06/20/05	OU4-SS-02-14(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	15.09	12.81	10.14 U	14.51	7.94	8.16	11.66 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-14(6-12) 6 - 12 06/20/05	OU4-SS-02-15(1-6) 1 - 6 06/20/05	OU4-SS-02-15(6-12) 6 - 12 06/20/05	OU4-SS-02-16(1-6) 1 - 6 06/20/05	OU4-SS-02-16(6-12) 6 - 12 06/20/05	OU4-SS-02-17(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	11.31	29.61	14.53	12.11	10.93	24.34

Table
Summary of Soil Sample Analytical Results

DRAFT

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-17(6-12) 6 - 12 06/20/05	OU4-SS-02-18(1-6) 1 - 6 06/20/05	OU4-SS-02-18(6-12) 6 - 12 06/20/05	OU4-SS-02-19(1-6) 1 - 6 06/20/05	OU4-SS-02-19(6-12) 6 - 12 06/20/05	OU4-SS-02-20(0-1) 0 - 1 06/20/05	OU4-SS-02-20(1-6) 1 - 6 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	6.02	14.35	4.77 U	28.25	19.27	11.22	12.35 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-20(6-12) 6 - 12 06/20/05	OU4-SS-02-21(0-1) 0 - 1 06/20/05	OU4-SS-02-21(1-6) 1 - 6 06/20/05	OU4-SS-02-21(6-12) 6 - 12 06/20/05	OU4-SS-02-22(0-1) 0 - 1 06/20/05	OU4-SS-02-22(1-6) 1 - 6 06/20/05	OU4-SS-02-22(6-12) 6 - 12 06/20/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	9.52	8.31	15.9	7.08	27.27	22.09	9.86

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-23(0-1) 0 - 1 06/20/05	OU4-SS-02-23(1-6) 1 - 6 06/20/05	OU4-SS-02-23(6-12) 6 - 12 06/20/05
Metals - XRF (USEPA SW-846 62(				
Arsenic	mg/kg	24.89	32.3	8.51

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	235.31	208	113.13	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	215.05	208	103.39	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	238.87	208	114.84	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	228.44	208	109.83	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD5-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	226.01	208	108.66	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD6-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	224.92	208	108.13	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD7-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	237.97	208	114.41	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD8-062005 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	218.73	208	105.16	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS									
Sample ID: Date Collected:	Units	OU4-SS-MBLANK1-062005 06/20/05	OU4-SS-MBLANK2-062005 06/20/05	OU4-SS-MBLANK3-062005 06/20/05	OU4-SS-MBLANK4-062005 06/20/05	OU4-SS-MBLANK5 062005 06/20/05	OU4-SS-MBLANK6-062005 06/20/05	OU4-SS-MBLANK7-062005 06/20/05	OU4-SS-MBLANK8-062005 06/20/05
Analytes associated with the method blanks were not detected.									

EQUIPMENT BLANKS
Equipment blanks were not collected.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-14-COMP4(0-1) 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-1 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-2 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-3 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-4 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-5 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-6 0 - 1 6/14/05	OU4-SS-14-COMP4(0-1)-7 0 - 1 6/14/05			
Metals - XRF (USEPA SW-846 6200)													
											SD	**Mean**	**RSD**
Arsenic	mg/kg	8.6	30.81	48 37	48.17	56.41	48 05	51.79	47.18	35 84	8.379708	45.8275	18.28533
Barium	mg/kg	11000	2300.39	NA	NA	NA	NA	NA	NA	NA			
Cadmium	mg/kg	78	63.74	NA	NA	NA	NA	NA	NA	NA			
Chromium	mg/kg	780	118.97 U	NA	NA	NA	NA	NA	NA	NA			
Cobalt	mg/kg	9400	107.55 U	NA	NA	NA	NA	NA	NA	NA			
Copper	mg/kg	6200	51.04	NA	NA	NA	NA	NA	NA	NA			
Iron	mg/kg	46000	18566.04	NA	NA	NA	NA	NA	NA	NA			
Lead	mg/kg	240	2185.31	NA	NA	NA	NA	NA	NA	NA			
Manganese	mg/kg	3600	585.17	NA	NA	NA	NA	NA	NA	NA			
Mercury	mg/kg	15.6	11.43 U	NA	NA	NA	NA	NA	NA	NA			
Nickel	mg/kg	3200	23.91 U	NA	NA	NA	NA	NA	NA	NA			
Selenium	mg/kg	780	4 33 U	NA	NA	NA	NA	NA	NA	NA			
Silver	mg/kg	780	25.5 U	NA	NA	NA	NA	NA	NA	NA			
Zinc	mg/kg	46000	4285.37	NA	NA	NA	NA	NA	NA	NA			

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF062105

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF062105 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-03-01(6-12)	Soil	6/21/2005				X	
OU4-SS-03-02(6-12)	Soil	6/21/2005				X	
OU4-SS-03-03(6-12)	Soil	6/21/2005				X	
OU4-SS-03-04(6-12)	Soil	6/21/2005				X	
OU4-SS-03-05(6-12)	Soil	6/21/2005				X	
OU4-SS-03-06(0-1)	Soil	6/21/2005				X	
OU4-SS-03-07(0-1)	Soil	6/21/2005				X	
OU4-SS-03-08(0-1)	Soil	6/21/2005				X	
OU4-SS-03-09(0-1)	Soil	6/21/2005				X	
OU4-SS-03-10(0-1)	Soil	6/21/2005				X	
OU4-SS-03-06(1-6)	Soil	6/21/2005				X	
OU4-SS-03-07(1-6)	Soil	6/21/2005				X	
OU4-SS-03-08(1-6)	Soil	6/21/2005				X	
OU4-SS-03-09(1-6)	Soil	6/21/2005				X	
OU4-SS-03-10(1-6)	Soil	6/21/2005				X	
OU4-SS-03-10(1-6)-DUP	Soil	6/21/2005				X	
OU4-SS-03-06(6-12)	Soil	6/21/2005				X	
OU4-SS-03-07(6-12)	Soil	6/21/2005				X	
OU4-SS-03-08(6-12)	Soil	6/21/2005				X	
OU4-SS-03-09(6-12)	Soil	6/21/2005				X	
OU4-SS-03-10(6-12)	Soil	6/21/2005				X	
OU4-SS-03-06(12-18)	Soil	6/21/2005				X	
OU4-SS-03-07(12-18)	Soil	6/21/2005				X	
OU4-SS-03-08(12-18)	Soil	6/21/2005				X	
OU4-SS-03-09(12-18)	Soil	6/21/2005				X	
OU4-SS-03-10(12-18)	Soil	6/21/2005				X	
OU4-SS-03-11(0-1)	Soil	6/21/2005				X	
OU4-SS-03-12(0-1)	Soil	6/21/2005				X	
OU4-SS-03-13(0-1)	Soil	6/21/2005				X	
OU4-SS-03-14(0-1)	Soil	6/21/2005				X	
OU4-SS-03-15(0-1)	Soil	6/21/2005				X	
OU4-SS-03-11(1-6)	Soil	6/21/2005				X	
OU4-SS-03-12(1-6)	Soil	6/21/2005				X	
OU4-SS-03-13(1-6)	Soil	6/21/2005				X	
OU4-SS-03-14(1-6)	Soil	6/21/2005				X	
OU4-SS-03-15(1-6)	Soil	6/21/2005				X	
OU4-SS-03-11(6-12)	Soil	6/21/2005				X	
OU4-SS-03-12(6-12)	Soil	6/21/2005				X	
OU4-SS-03-13(6-12)	Soil	6/21/2005				X	
OU4-SS-03-14(6-12)	Soil	6/21/2005				X	
OU4-SS-03-15(6-12)	Soil	6/21/2005				X	
OU4-SS-03-15(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-03-11(12-18)	Soil	6/21/2005				X	
OU4-SS-03-12(12-18)	Soil	6/21/2005				X	
OU4-SS-03-13(12-18)	Soil	6/21/2005				X	
OU4-SS-03-14(12-18)	Soil	6/21/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-03-15(12-18)	Soil	6/21/2005				X	
OU4-SS-03-16(0-1)	Soil	6/21/2005				X	
OU4-SS-03-17(0-1)	Soil	6/21/2005				X	
OU4-SS-03-18(0-1)	Soil	6/21/2005				X	
OU4-SS-03-19(0-1)	Soil	6/21/2005				X	
OU4-SS-03-16(12-18)	Soil	6/21/2005				X	
OU4-SS-03-17(12-18)	Soil	6/21/2005				X	
OU4-SS-03-18(12-18)	Soil	6/21/2005				X	
OU4-SS-03-19(12-18)	Soil	6/21/2005				X	
OU4-SS-04-01(6-12)	Soil	6/21/2005				X	
OU4-SS-04-02(6-12)	Soil	6/21/2005				X	
OU4-SS-04-03(6-12)	Soil	6/21/2005				X	
OU4-SS-04-04(6-12)	Soil	6/21/2005				X	
OU4-SS-04-05(6-12)	Soil	6/21/2005				X	
OU4-SS-04-05(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-04-06(0-1)	Soil	6/21/2005				X	
OU4-SS-04-07(0-1)	Soil	6/21/2005				X	
OU4-SS-04-08(0-1)	Soil	6/21/2005				X	
OU4-SS-04-09(0-1)	Soil	6/21/2005				X	
OU4-SS-04-10(0-1)	Soil	6/21/2005				X	
OU4-SS-04-06(12-18)	Soil	6/21/2005				X	
OU4-SS-04-07(12-18)	Soil	6/21/2005				X	
OU4-SS-04-08(12-18)	Soil	6/21/2005				X	
OU4-SS-04-09(12-18)	Soil	6/21/2005				X	
OU4-SS-04-10(12-18)	Soil	6/21/2005				X	
OU4-SS-04-11(1-6)	Soil	6/21/2005				X	
OU4-SS-04-12(1-6)	Soil	6/21/2005				X	
OU4-SS-04-13(1-6)	Soil	6/21/2005				X	
OU4-SS-04-14(1-6)	Soil	6/21/2005				X	
OU4-SS-04-15(1-6)	Soil	6/21/2005				X	
OU4-SS-04-16(0-1)	Soil	6/21/2005				X	
OU4-SS-04-17(0-1)	Soil	6/21/2005				X	
OU4-SS-04-18(0-1)	Soil	6/21/2005				X	
OU4-SS-04-19(0-1)	Soil	6/21/2005				X	
OU4-SS-04-20(0-1)	Soil	6/21/2005				X	
OU4-SS-04-20(0-1)-DUP	Soil	6/21/2005				X	
OU4-SS-04-24(0-1)	Soil	6/21/2005				X	
OU4-SS-04-25(0-1)	Soil	6/21/2005				X	
OU4-SS-04-26(0-1)	Soil	6/21/2005				X	
OU4-SS-04-27(0-1)	Soil	6/21/2005				X	
OU4-SS-04-24(1-6)	Soil	6/21/2005				X	
OU4-SS-04-25(1-6)	Soil	6/21/2005				X	
OU4-SS-04-26(1-6)	Soil	6/21/2005				X	
OU4-SS-04-27(1-6)	Soil	6/21/2005				X	
OU4-SS-05-01(0-1)	Soil	6/21/2005				X	
OU4-SS-05-02(0-1)	Soil	6/21/2005				X	
OU4-SS-05-03(0-1)	Soil	6/21/2005				X	
OU4-SS-05-04(0-1)	Soil	6/21/2005				X	
OU4-SS-05-05(0-1)	Soil	6/21/2005				X	
OU4-SS-05-05(0-1)-DUP	Soil	6/21/2005				X	
OU4-SS-05-01(1-6)	Soil	6/21/2005				X	
OU4-SS-05-02(1-6)	Soil	6/21/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-05-03(1-6)	Soil	6/21/2005				X	
OU4-SS-05-04(1-6)	Soil	6/21/2005				X	
OU4-SS-05-05(1-6)	Soil	6/21/2005				X	
OU4-SS-05-06(1-6)	Soil	6/21/2005				X	
OU4-SS-05-07(1-6)	Soil	6/21/2005				X	
OU4-SS-05-08(1-6)	Soil	6/21/2005				X	
OU4-SS-05-09(1-6)	Soil	6/21/2005				X	
OU4-SS-05-06(6-12)	Soil	6/21/2005				X	
OU4-SS-05-07(6-12)	Soil	6/21/2005				X	
OU4-SS-05-08(6-12)	Soil	6/21/2005				X	
OU4-SS-05-09(6-12)	Soil	6/21/2005				X	
OU4-SS-05-10(1-6)	Soil	6/21/2005				X	
OU4-SS-05-11(1-6)	Soil	6/21/2005				X	
OU4-SS-05-12(1-6)	Soil	6/21/2005				X	
OU4-SS-05-13(1-6)	Soil	6/21/2005				X	
OU4-SS-05-14(1-6)	Soil	6/21/2005				X	
OU4-SS-05-10(6-12)	Soil	6/21/2005				X	
OU4-SS-05-11(6-12)	Soil	6/21/2005				X	
OU4-SS-05-12(6-12)	Soil	6/21/2005				X	
OU4-SS-05-13(6-12)	Soil	6/21/2005				X	
OU4-SS-05-14(6-12)	Soil	6/21/2005				X	
OU4-SS-05-14(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-05-16(0-1)	Soil	6/21/2005				X	
OU4-SS-05-17(0-1)	Soil	6/21/2005				X	
OU4-SS-05-18(0-1)	Soil	6/21/2005				X	
OU4-SS-05-19(0-1)	Soil	6/21/2005				X	
OU4-SS-05-15(0-1)	Soil	6/21/2005				X	
OU4-SS-05-15(1-6)	Soil	6/21/2005				X	
OU4-SS-05-15(6-12)	Soil	6/21/2005				X	
OU4-SS-05-15(12-18)	Soil	6/21/2005				X	
OU4-SS-06-01(1-6)	Soil	6/21/2005				X	
OU4-SS-06-02(1-6)	Soil	6/21/2005				X	
OU4-SS-06-03(1-6)	Soil	6/21/2005				X	
OU4-SS-06-04(1-6)	Soil	6/21/2005				X	
OU4-SS-06-05(0-1)	Soil	6/21/2005				X	
OU4-SS-06-06(0-1)	Soil	6/21/2005				X	
OU4-SS-06-07(0-1)	Soil	6/21/2005				X	
OU4-SS-06-08(0-1)	Soil	6/21/2005				X	
OU4-SS-06-09(0-1)	Soil	6/21/2005				X	
OU4-SS-06-05(1-6)	Soil	6/21/2005				X	
OU4-SS-06-06(1-6)	Soil	6/21/2005				X	
OU4-SS-06-07(1-6)	Soil	6/21/2005				X	
OU4-SS-06-08(1-6)	Soil	6/21/2005				X	
OU4-SS-06-09(1-6)	Soil	6/21/2005				X	
OU4-SS-06-09(1-6)-DUP	Soil	6/21/2005				X	
OU4-SS-06-05(6-12)	Soil	6/21/2005				X	
OU4-SS-06-06(6-12)	Soil	6/21/2005				X	
OU4-SS-06-07(6-12)	Soil	6/21/2005				X	
OU4-SS-06-08(6-12)	Soil	6/21/2005				X	
OU4-SS-06-09(6-12)	Soil	6/21/2005				X	
OU4-SS-06-10(0-1)	Soil	6/21/2005				X	
OU4-SS-06-11(0-1)	Soil	6/21/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-06-12(0-1)	Soil	6/21/2005				X	
OU4-SS-06-13(0-1)	Soil	6/21/2005				X	
OU4-SS-06-14(0-1)	Soil	6/21/2005				X	
OU4-SS-06-14(0-1)-DUP	Soil	6/21/2005				X	
OU4-SS-06-10(1-6)	Soil	6/21/2005				X	
OU4-SS-06-11(1-6)	Soil	6/21/2005				X	
OU4-SS-06-12(1-6)	Soil	6/21/2005				X	
OU4-SS-06-13(1-6)	Soil	6/21/2005				X	
OU4-SS-06-14(1-6)	Soil	6/21/2005				X	
OU4-SS-06-10(6-12)	Soil	6/21/2005				X	
OU4-SS-06-11(6-12)	Soil	6/21/2005				X	
OU4-SS-06-12(6-12)	Soil	6/21/2005				X	
OU4-SS-06-13(6-12)	Soil	6/21/2005				X	
OU4-SS-06-14(6-12)	Soil	6/21/2005				X	
OU4-SS-06-14(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-06-10(12-18)	Soil	6/21/2005				X	
OU4-SS-06-11(12-18)	Soil	6/21/2005				X	
OU4-SS-06-12(12-18)	Soil	6/21/2005				X	
OU4-SS-06-13(12-18)	Soil	6/21/2005				X	
OU4-SS-06-14(12-18)	Soil	6/21/2005				X	
OU4-SS-06-15(0-1)	Soil	6/21/2005				X	
OU4-SS-06-16(0-1)	Soil	6/21/2005				X	
OU4-SS-06-17(0-1)	Soil	6/21/2005				X	
OU4-SS-06-18(0-1)	Soil	6/21/2005				X	
OU4-SS-06-19(0-1)	Soil	6/21/2005				X	
OU4-SS-06-15(6-12)	Soil	6/21/2005				X	
OU4-SS-06-16(6-12)	Soil	6/21/2005				X	
OU4-SS-06-17(6-12)	Soil	6/21/2005				X	
OU4-SS-06-18(6-12)	Soil	6/21/2005				X	
OU4-SS-06-19(6-12)	Soil	6/21/2005				X	
OU4-SS-06-19(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-06-20(0-1)	Soil	6/21/2005				X	
OU4-SS-06-21(0-1)	Soil	6/21/2005				X	
OU4-SS-06-22(0-1)	Soil	6/21/2005				X	
OU4-SS-06-23(0-1)	Soil	6/21/2005				X	
OU4-SS-06-20(1-6)	Soil	6/21/2005				X	
OU4-SS-06-21(1-6)	Soil	6/21/2005				X	
OU4-SS-06-22(1-6)	Soil	6/21/2005				X	
OU4-SS-06-23(1-6)	Soil	6/21/2005				X	
OU4-SS-06-20(6-12)	Soil	6/21/2005				X	
OU4-SS-06-21(6-12)	Soil	6/21/2005				X	
OU4-SS-06-22(6-12)	Soil	6/21/2005				X	
OU4-SS-06-23(6-12)	Soil	6/21/2005				X	
OU4-SS-06-23(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-07-01(0-1)	Soil	6/21/2005				X	
OU4-SS-07-02(0-1)	Soil	6/21/2005				X	
OU4-SS-07-03(0-1)	Soil	6/21/2005				X	
OU4-SS-07-04(0-1)	Soil	6/21/2005				X	
OU4-SS-07-05(0-1)	Soil	6/21/2005				X	
OU4-SS-07-01(1-6)	Soil	6/21/2005				X	
OU4-SS-07-02(1-6)	Soil	6/21/2005				X	
OU4-SS-07-03(1-6)	Soil	6/21/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-07-04(1-6)	Soil	6/21/2005				X	
OU4-SS-07-05(1-6)	Soil	6/21/2005				X	
OU4-SS-07-01(6-12)	Soil	6/21/2005				X	
OU4-SS-07-02(6-12)	Soil	6/21/2005				X	
OU4-SS-07-03(6-12)	Soil	6/21/2005				X	
OU4-SS-07-04(6-12)	Soil	6/21/2005				X	
OU4-SS-07-05(6-12)	Soil	6/21/2005				X	
OU4-SS-07-05(6-12)-DUP	Soil	6/21/2005				X	
OU4-SS-07-06(1-6)	Soil	6/21/2005				X	
OU4-SS-07-07(1-6)	Soil	6/21/2005				X	
OU4-SS-07-08(1-6)	Soil	6/21/2005				X	
OU4-SS-07-09(1-6)	Soil	6/21/2005				X	
OU4-SS-07-06(6-12)	Soil	6/21/2005				X	
OU4-SS-07-07(6-12)	Soil	6/21/2005				X	
OU4-SS-07-08(6-12)	Soil	6/21/2005				X	
OU4-SS-07-09(6-12)	Soil	6/21/2005				X	
OU4-SS-07-10(0-1)	Soil	6/21/2005				X	
OU4-SS-07-11(0-1)	Soil	6/21/2005				X	
OU4-SS-07-12(0-1)	Soil	6/21/2005				X	
OU4-SS-07-13(0-1)	Soil	6/21/2005				X	
OU4-SS-07-14(0-1)	Soil	6/21/2005				X	
OU4-SS-07-10(1-6)	Soil	6/21/2005				X	
OU4-SS-07-11(1-6)	Soil	6/21/2005				X	
OU4-SS-07-12(1-6)	Soil	6/21/2005				X	
OU4-SS-07-13(1-6)	Soil	6/21/2005				X	
OU4-SS-07-14(1-6)	Soil	6/21/2005				X	
OU4-SS-07-14(1-6)-DUP	Soil	6/21/2005				X	
OU4-SS-07-10(6-12)	Soil	6/21/2005				X	
OU4-SS-07-11(6-12)	Soil	6/21/2005				X	
OU4-SS-07-12(6-12)	Soil	6/21/2005				X	
OU4-SS-07-13(6-12)	Soil	6/21/2005				X	
OU4-SS-07-14(6-12)	Soil	6/21/2005				X	
OU4-SS-07-15(0-1)	Soil	6/21/2005				X	
OU4-SS-07-16(0-1)	Soil	6/21/2005				X	
OU4-SS-07-17(0-1)	Soil	6/21/2005				X	
OU4-SS-07-18(0-1)	Soil	6/21/2005				X	
OU4-SS-07-19(0-1)	Soil	6/21/2005				X	
OU4-SS-07-20(0-1)	Soil	6/21/2005				X	
OU4-SS-07-21(0-1)	Soil	6/21/2005				X	
OU4-SS-07-18(1-6)	Soil	6/21/2005				X	
OU4-SS-07-19(1-6)	Soil	6/21/2005				X	
OU4-SS-07-20(1-6)	Soil	6/21/2005				X	
OU4-SS-07-21(1-6)	Soil	6/21/2005				X	
OU4-SS-07-18(6-12)	Soil	6/21/2005				X	
OU4-SS-07-19(6-12)	Soil	6/21/2005				X	
OU4-SS-07-20(6-12)	Soil	6/21/2005				X	
OU4-SS-07-21(6-12)	Soil	6/21/2005				X	
OU4-SS-07-21(6-12)-DUP	Soil	6/21/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

No target analytes were detected in the associated blanks.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

Many analytes exhibited unacceptable recoveries. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120% were qualified as estimated.

4. Precision Measurement

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-01-16(0-1). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-03-10(1-6)/ OU4-SS-03-10(1-6)-DUP	Arsenic	31.01		26.2		16.8

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-03-15(6-12)/ OU4-SS-03-15(6-12)-DUP	Arsenic	32.1		29.52		8.4
OU4-SS-04-05(6-12)/ OU4-SS-04-05(6-12)-DUP	Arsenic	16.44		10.89		40.6
OU4-SS-04-20(0-1)/ OU4-SS-04-20(0-1)-DUP	Arsenic	10.72	U	10.54	U	AC
OU4-SS-05-05(0-1)/ OU4-SS-05-05(0-1)-DUP	Arsenic	17.9		11.71	U	AC
OU4-SS-05-14(6-12)/ OU4-SS-05-14(6-12)-DUP	Arsenic	9.05		7.61		17.3
OU4-SS-06-09(1-6)/ OU4-SS-06-09(1-6)-DUP	Arsenic	11.73	U	18.8		AC
OU4-SS-06-14(0-1)/ OU4-SS-06-14(0-1)-DUP	Arsenic	16.28		18.82		14.5
OU4-SS-06-14(6-12)/ OU4-SS-06-14(6-12)-DUP	Arsenic	20.79		14.82		33.5
OU4-SS-06-19(6-12)/ OU4-SS-06-19(6-12)-DUP	Arsenic	20.44		18.73		8.7
OU4-SS-06-23(6-12)/ OU4-SS-06-23(6-12)-DUP	Arsenic	10.28		9.83		4.5
OU4-SS-07-05(6-12)/ OU4-SS-07-05(6-12)-DUP	Arsenic	14.56		15.89		8.7
OU4-SS-07-14(1-6)/ OU4-SS-07-14(1-6)-DUP	Arsenic	13.19	U	13.36	U	AC
OU4-SS-07-21(6-12)/ OU4-SS-07-21(6-12)-DUP	Arsenic	8.19	U	10.77		AC

ND not detected.
AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/21/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-062105	QC		QC
2	733	OU4-SS-EBLANK1-062105	QC		QC
3	733	OU4-SS-MBLANK1-062105	QC		QC
4	733	OU4-SS-CLPSTD1-062105	QC		QC
5	733	OU4-SS-01-16(0-1)-1	QC		QC
6	733	OU4-SS-01-16(0-1)-2	QC		QC
7	733	OU4-SS-01-16(0-1)-3	QC		QC
8	733	OU4-SS-01-16(0-1)-4	QC		QC
9	733	OU4-SS-01-16(0-1)-5	QC		QC
10	733	OU4-SS-01-16(0-1)-6	QC		QC
11	733	OU4-SS-01-16(0-1)-7	QC		QC
12	733	OU4-SS-03-01(6-12)	FS	03	S16
13	733	OU4-SS-03-02(6-12)	FS	03	S16
14	733	OU4-SS-03-03(6-12)	FS	03	S16
15	733	OU4-SS-03-04(6-12)	FS	03	S16
16	733	OU4-SS-03-05(6-12)	FS	03	S16
17	733	OU4-SS-03-06(0-1)	FS	03	S16
18	733	OU4-SS-03-07(0-1)	FS	03	S16
19	733	OU4-SS-03-08(0-1)	FS	03	S16
20	733	OU4-SS-03-09(0-1)	FS	03	S16
21	733	OU4-SS-03-10(0-1)	FS	03	S16
22	733	OU4-SS-03-06(1-6)	FS	03	S16
23	733	OU4-SS-03-07(1-6)	FS	03	S16
24	733	OU4-SS-03-08(1-6)	FS	03	S16
25	733	OU4-SS-03-09(1-6)	FS	03	S16
26	733	OU4-SS-03-10(1-6)	FS	03	S16
27	733	OU4-SS-03-10(1-6)-DUP	QC	03	QC
28	733	OU4-SS-EBLANK2-062105	QC		QC
29	733	OU4-SS-MBLANK2-062105	QC		QC
30	733	OU4-SS-CLPSTD2-062105	QC		QC
31	733	OU4-SS-03-06(6-12)	FS	03	S16
32	733	OU4-SS-03-07(6-12)	FS	03	S16
33	733	OU4-SS-03-08(6-12)	FS	03	S16
34	733	OU4-SS-03-09(6-12)	FS	03	S16
35	733	OU4-SS-03-10(6-12)	FS	03	S16
36	733	OU4-SS-03-06(12-18)	FS	03	S16
37	733	OU4-SS-03-07(12-18)	FS	03	S16

Electronic Log for 06/21/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-03-08(12-18)	FS	03	S16
39	733	OU4-SS-03-09(12-18)	FS	03	S16
40	733	OU4-SS-03-10(12-18)	FS	03	S16
41	733	OU4-SS-03-11(0-1)	FS	03	S16
42	733	OU4-SS-03-12(0-1)	FS	03	S16
43	733	OU4-SS-03-13(0-1)	FS	03	S16
44	733	OU4-SS-03-14(0-1)	FS	03	S16
45	733	OU4-SS-03-15(0-1)	FS	03	S16
46	733	OU4-SS-03-11(1-6)	FS	03	S16
47	733	OU4-SS-03-12(1-6)	FS	03	S16
48	733	OU4-SS-03-13(1-6)	FS	03	S16
49	733	OU4-SS-03-14(1-6)	FS	03	S16
50	733	OU4-SS-03-15(1-6)	FS	03	S16
51	733	OU4-SS-03-11(6-12)	FS	03	S16
52	733	OU4-SS-03-12(6-12)	FS	03	S16
53	733	OU4-SS-03-13(6-12)	FS	03	S16
54	733	OU4-SS-03-14(6-12)	FS	03	S16
55	733	OU4-SS-03-15(6-12)	FS	03	S16
56	733	OU4-SS-03-15(6-12)-DUP	QC		QC
57	733	OU4-SS-EBLANK3-062105	QC		QC
58	733	OU4-SS-MBLANK3-062105	QC		QC
59	733	OU4-SS-CLPSTD3-062105	QC		QC
60	733	OU4-SS-03-11(12-18)	FS	03	S16
61	733	OU4-SS-03-12(12-18)	FS	03	S16
62	733	OU4-SS-03-13(12-18)	FS	03	S16
63	733	OU4-SS-03-14(12-18)	FS	03	S16
64	733	OU4-SS-03-15(12-18)	FS	03	S16
65	733	OU4-SS-03-16(0-1)	FS	03	S16
66	733	OU4-SS-03-17(0-1)	FS	03	S16
67	733	OU4-SS-03-18(0-1)	FS	03	S16
68	733	OU4-SS-03-19(0-1)	FS	03	S16
69	733	OU4-SS-03-16(12-18)	FS	03	S16
70	733	OU4-SS-03-17(12-18)	FS	03	S16
71	733	OU4-SS-03-18(12-18)	FS	03	S16
72	733	OU4-SS-03-19(12-18)	FS	03	S16
73	733	OU4-SS-04-01(6-12)	FS	04	E06
74	733	OU4-SS-04-02(6-12)	FS	04	E06

Electronic Log for 06/21/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-STD2-062105	QC		QC
76	733	OU4-SS-04-03(6-12)	FS	04	E06
77	733	OU4-SS-04-04(6-12)	FS	04	E06
78	733	OU4-SS-04-05(6-12)	FS	04	E06
79	733	OU4-SS-04-05(6-12)-DUP	QC	04	QC
80	733	OU4-SS-EBLANK4-062105	QC		QC
81	733	OU4-SS-MBLANK4-062105	QC		QC
82	733	OU4-SS-CLPSTD4-062105	QC		QC
83	733	OU4-SS-04-06(0-1)	FS	04	E06
84	733	OU4-SS-04-07(0-1)	FS	04	E06
85	733	OU4-SS-04-08(0-1)	FS	04	E06
86	733	OU4-SS-04-09(0-1)	FS	04	E06
87	733	OU4-SS-04-10(0-1)	FS	04	E06
88	733	OU4-SS-04-06(12-18)	FS	04	E06
89	733	OU4-SS-04-07(12-18)	FS	04	E06
90	733	OU4-SS-04-08(12-18)	FS	04	E06
91	733	OU4-SS-04-09(12-18)	FS	04	E06
92	733	OU4-SS-04-10(12-18)	FS	04	E06
93	733	OU4-SS-04-11(1-6)	FS	04	E06
94	733	OU4-SS-04-12(1-6)	FS	04	E06
95	733	OU4-SS-04-13(1-6)	FS	04	E06
96	733	OU4-SS-04-14(1-6)	FS	04	E06
97	733	OU4-SS-04-15(1-6)	FS	04	E06
98	733	OU4-SS-04-16(0-1)	FS	04	E06
99	733	OU4-SS-04-17(0-1)	FS	04	E06
100	733	OU4-SS-04-18(0-1)	FS	04	E06
101	733	OU4-SS-04-19(0-1)	FS	04	E06
102	733	OU4-SS-04-20(0-1)	FS	04	E06
103	733	OU4-SS-04-20(0-1)-DUP	QC		QC
104	733	OU4-SS-EBLANK5-062105	QC		QC
105	733	OU4-SS-MBLANK5-062105	QC		QC
106	733	OU4-SS-CLPSTD5-062105	QC		QC
107	733	OU4-SS-04-24(0-1)	FS	04	E06
108	733	OU4-SS-04-25(0-1)	FS	04	E06
109	733	OU4-SS-04-26(0-1)	FS	04	E06
110	733	OU4-SS-04-27(0-1)	FS	04	E06
111	733	OU4-SS-04-24(1-6)	FS	04	E06

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
112	733	OU4-SS-04-25(1-6)	FS	04	E06
113	733	OU4-SS-04-26(1-6)	FS	04	E06
114	733	OU4-SS-04-27(1-6)	FS	04	E06
115	733	OU4-SS-05-01(0-1)	FS	05	W05
116	733	OU4-SS-05-02(0-1)	FS	05	W05
117	733	OU4-SS-05-03(0-1)	FS	05	W05
118	733	OU4-SS-05-04(0-1)	FS	05	W05
119	733	OU4-SS-05-05(0-1)	FS	05	W05
120	733	OU4-SS-05-05(0-1)-DUP	QC		QC
121	733	OU4-SS-EBLANK6-062105	QC		QC
122	733	OU4-SS-MBLANK6-062105	QC		QC
123	733	OU4-SS-CLPSTD6-062105	QC		QC
124	733	OU4-SS-05-01(1-6)	FS	05	W05
125	733	OU4-SS-05-02(1-6)	FS	05	W05
126	733	OU4-SS-05-03(1-6)	FS	05	W05
127	733	OU4-SS-05-04(1-6)	FS	05	W05
128	733	OU4-SS-05-05(1-6)	FS	05	W05
129	733	OU4-SS-05-06(1-6)	FS	05	W05
130	733	OU4-SS-05-07(1-6)	FS	05	W05
131	733	OU4-SS-05-08(1-6)	FS	05	W05
132	733	OU4-SS-05-09(1-6)	FS	05	W05
133	733	OU4-SS-05-06(6-12)	FS	05	W05
134	733	OU4-SS-05-07(6-12)	FS	05	W05
135	733	OU4-SS-05-08(6-12)	FS	05	W05
136	733	OU4-SS-05-09(6-12)	FS	05	W05
137	733	OU4-SS-05-10(1-6)	FS	05	W05
138	733	OU4-SS-05-11(1-6)	FS	05	W05
139	733	OU4-SS-05-12(1-6)	FS	05	W05
140	733	OU4-SS-05-13(1-6)	FS	05	W05
141	733	OU4-SS-05-14(1-6)	FS	05	W05
142	733	OU4-SS-05-10(6-12)	FS	05	W05
143	733	OU4-SS-05-11(6-12)	FS	05	W05
144	733	OU4-SS-05-12(6-12)	FS	05	W05
145	733	OU4-SS-05-13(6-12)	FS	05	W05
146	733	OU4-SS-05-14(6-12)	FS	05	W05
147	733	OU4-SS-05-14(6-12)-DUP	QC		QC
148	733	OU4-SS-EBLANK7-062105	QC		QC

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
149	733	OU4-SS-MBLANK7-062105	QC		QC
150	733	OU4-SS-CLPSTD7-062105	QC		QC
151	733	OU4-SS-05-16(0-1)	FS	05	W05
152	733	OU4-SS-05-17(0-1)	FS	05	W05
153	733	OU4-SS-05-18(0-1)	FS	05	W05
154	733	OU4-SS-05-19(0-1)	FS	05	W05
155	733	OU4-SS-05-15(0-1)	FS	05	W05
156	733	OU4-SS-05-15(1-6)	FS	05	W05
157	733	OU4-SS-05-15(6-12)	FS	05	W05
158	733	OU4-SS-05-15(12-18)	FS	05	W05
159	733	OU4-SS-06-01(1-6)	FS	06	D19
160	733	OU4-SS-STD3FAIL-062105	QC		QC
161	733	OU4-SS-STD4-062105	QC		QC
162	733	OU4-SS-06-02(1-6)	FS	06	D19
163	733	OU4-SS-06-03(1-6)	FS	06	D19
164	733	OU4-SS-06-04(1-6)	FS	06	D19
165	733	OU4-SS-06-05(0-1)	FS	06	D19
166	733	OU4-SS-06-06(0-1)	FS	06	D19
167	733	OU4-SS-06-07(0-1)	FS	06	D19
168	733	OU4-SS-06-08(0-1)	FS	06	D19
169	733	OU4-SS-06-09(0-1)	FS	06	D19
170	733	OU4-SS-06-05(1-6)	FS	06	D19
171	733	OU4-SS-06-06(1-6)	FS	06	D19
172	733	OU4-SS-06-07(1-6)	FS	06	D19
173	733	OU4-SS-06-08(1-6)	FS	06	D19
174	733	OU4-SS-06-09(1-6)	FS	06	D19
175	733	OU4-SS-06-09(1-6)-DUP	QC		QC
176	733	OU4-SS-EBLANK8-062105	QC		QC
177	733	OU4-SS-MBLANK8-062105	QC		QC
178	733	OU4-SS-CLPSTD8-062105	QC		QC
179	733	OU4-SS-06-05(6-12)	FS	06	D19
180	733	OU4-SS-06-06(6-12)	FS	06	D19
181	733	OU4-SS-06-07(6-12)	FS	06	D19
182	733	OU4-SS-06-08(6-12)	FS	06	D19
183	733	OU4-SS-06-09(6-12)	FS	06	D19
184	733	OU4-SS-06-10(0-1)	FS	06	D19
185	733	OU4-SS-06-11(0-1)	FS	06	D19

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
186	733	OU4-SS-06-12(0-1)	FS	06	D19
187	733	OU4-SS-06-13(0-1)	FS	06	D19
188	733	OU4-SS-06-14(0-1)	FS	06	D19
189	733	OU4-SS-06-14(0-1)-DUP	QC		QC
190	733	OU4-SS-EBLANK9-062105	QC		QC
191	733	OU4-SS-MBLANK9-062105	QC		QC
192	733	OU4-SS-CLPSTD9-062105	QC		QC
193	733	OU4-SS-06-10(1-6)	FS	06	D19
194	733	OU4-SS-06-11(1-6)	FS	06	D19
195	733	OU4-SS-06-12(1-6)	FS	06	D19
196	733	OU4-SS-06-13(1-6)	FS	06	D19
197	733	OU4-SS-06-14(1-6)	FS	06	D19
198	733	OU4-SS-06-10(6-12)	FS	06	D19
199	733	OU4-SS-06-11(6-12)	FS	06	D19
200	733	OU4-SS-06-12(6-12)	FS	06	D19
201	733	OU4-SS-06-13(6-12)	FS	06	D19
202	733	OU4-SS-06-14(6-12)	FS	06	D19
203	733	OU4-SS-06-14(6-12)-DUP	QC		QC
204	733	OU4-SS-EBLANK10-062105	QC		QC
205	733	OU4-SS-MBLANK10-062105	QC		QC
206	733	OU4-SS-CLPSTD10-062105	QC		QC
207	733	OU4-SS-06-10(12-18)	FS	06	D19
208	733	OU4-SS-06-11(12-18)	FS	06	D19
209	733	OU4-SS-06-12(12-18)	FS	06	D19
210	733	OU4-SS-06-13(12-18)	FS	06	D19
211	733	OU4-SS-06-14(12-18)	FS	06	D19
212	733	OU4-SS-06-15(0-1)	FS	06	D19
213	733	OU4-SS-06-16(0-1)	FS	06	D19
214	733	OU4-SS-06-17(0-1)	FS	06	D19
215	733	OU4-SS-06-18(0-1)	FS	06	D19
216	733	OU4-SS-06-19(0-1)	FS	06	D19
217	733	OU4-SS-06-15(6-12)	FS	06	D19
218	733	OU4-SS-06-16(6-12)	FS	06	D19
219	733	OU4-SS-06-17(6-12)	FS	06	D19
220	733	OU4-SS-06-18(6-12)	FS	06	D19
221	733	OU4-SS-06-19(6-12)	FS	06	D19
222	733	OU4-SS-06-19(6-12)-DUP	QC		QC

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
223	733	OU4-SS-EBLANK11-062105	QC		QC
224	733	OU4-SS-MBLANK11-062105	QC		QC
225	733	OU4-SS-CLPSTD11-062105	QC		QC
226	733	OU4-SS-EBLANK12-062105	QC		QC
227	733	OU4-SS-MBLANK12-062105	QC		QC
228	733	OU4-SS-06-20(0-1)	FS	06	D19
229	733	OU4-SS-06-21(0-1)	FS	06	D19
230	733	OU4-SS-06-22(0-1)	FS	06	D19
231	733	OU4-SS-06-23(0-1)	FS	06	D19
232	733	OU4-SS-06-20(1-6)	FS	06	D19
233	733	OU4-SS-06-21(1-6)	FS	06	D19
234	733	OU4-SS-06-22(1-6)	FS	06	D19
235	733	OU4-SS-06-23(1-6)	FS	06	D19
236	733	OU4-SS-06-20(6-12)	FS	06	D19
237	733	OU4-SS-06-21(6-12)	FS	06	D19
238	733	OU4-SS-06-22(6-12)	FS	06	D19
239	733	OU4-SS-06-23(6-12)	FS	06	D19
240	733	OU4-SS-06-23(6-12)-DUP	QC	06	QC
241	733	OU4-SS-EBLANK13-062105	QC		QC
242	733	OU4-SS-MBLANK13-062105	QC		QC
243	733	OU4-SS-CLPSTD12-062105	QC		QC
244	733	OU4-SS-07-01(0-1)	FS	07	W02
245	733	OU4-SS-07-02(0-1)	FS	07	W02
246	733	OU4-SS-07-03(0-1)	FS	07	W02
247	733	OU4-SS-07-04(0-1)	FS	07	W02
248	733	OU4-SS-07-05(0-1)	FS	07	W02
249	733	OU4-SS-07-01(1-6)	FS	07	W02
250	733	OU4-SS-07-02(1-6)	FS	07	W02
251	733	OU4-SS-07-03(1-6)	FS	07	W02
252	733	OU4-SS-07-04(1-6)	FS	07	W02
253	733	OU4-SS-STD5-062105	QC		QC
254	733	OU4-SS-07-05(1-6)	FS	07	W02
255	733	OU4-SS-07-01(6-12)	FS	07	W02
256	733	OU4-SS-07-02(6-12)	FS	07	W02
257	733	OU4-SS-07-03(6-12)	FS	07	W02
258	733	OU4-SS-07-04(6-12)	FS	07	W02
259	733	OU4-SS-07-05(6-12)	FS	07	W02

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
260	733	OU4-SS-07-05(6-12)-DUP	QC		QC
261	733	OU4-SS-EBLANK14-062105	QC		QC
262	733	OU4-SS-MBLANK14-062105	QC		QC
263	733	OU4-SS-CLPSTD13-062105	QC		QC
264	733	OU4-SS-07-06(1-6)	FS	07	W02
265	733	OU4-SS-07-07(1-6)	FS	07	W02
266	733	OU4-SS-07-08(1-6)	FS	07	W02
267	733	OU4-SS-07-09(1-6)	FS	07	W02
268	733	OU4-SS-07-06(6-12)	FS	07	W02
269	733	OU4-SS-07-07(6-12)	FS	07	W02
270	733	OU4-SS-07-08(6-12)	FS	07	W02
271	733	OU4-SS-07-09(6-12)	FS	07	W02
272	733	OU4-SS-07-10(0-1)	FS	07	W02
273	733	OU4-SS-07-11(0-1)	FS	07	W02
274	733	OU4-SS-07-12(0-1)	FS	07	W02
275	733	OU4-SS-07-13(0-1)	FS	07	W02
276	733	OU4-SS-07-14(0-1)	FS	07	W02
277	733	OU4-SS-07-10(1-6)	FS	07	W02
278	733	OU4-SS-07-11(1-6)	FS	07	W02
279	733	OU4-SS-07-12(1-6)	FS	07	W02
280	733	OU4-SS-07-13(1-6)	FS	07	W02
281	733	OU4-SS-07-14(1-6)	FS	07	W02
282	733	OU4-SS-07-14(1-6)-DUP	QC		QC
283	733	OU4-SS-EBLANK15-062105	QC		QC
284	733	OU4-SS-MBLANK15-062105	QC		QC
285	733	OU4-SS-CLPSTD14-062105	QC		QC
286	733	OU4-SS-07-10(6-12)	FS	07	W02
287	733	OU4-SS-07-11(6-12)	FS	07	W02
288	733	OU4-SS-07-12(6-12)	FS	07	W02
289	733	OU4-SS-07-13(6-12)	FS	07	W02
290	733	OU4-SS-07-14(6-12)	FS	07	W02
291	733	OU4-SS-07-15(0-1)	FS	07	W02
292	733	OU4-SS-07-16(0-1)	FS	07	W02
293	733	OU4-SS-07-17(0-1)	FS	07	W02
294	733	OU4-SS-07-18(0-1)	FS	07	W02
295	733	OU4-SS-07-19(0-1)	FS	07	W02
296	733	OU4-SS-07-20(0-1)	FS	07	W02

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
297	733	OU4-SS-07-21(0-1)	FS	07	W02
298	733	OU4-SS-07-18(1-6)	FS	07	W02
299	733	OU4-SS-07-19(1-6)	FS	07	W02
300	733	OU4-SS-07-20(1-6)	FS	07	W02
301	733	OU4-SS-07-21(1-6)	FS	07	W02
302	733	OU4-SS-07-18(6-12)	FS	07	W02
303	733	OU4-SS-07-19(6-12)	FS	07	W02
304	733	OU4-SS-07-20(6-12)	FS	07	W02
305	733	OU4-SS-07-21(6-12)	FS	07	W02
306	733	OU4-SS-07-21(6-12)-DUP	QC	07	QC
307	733	OU4-SS-EBLANK16-062105	QC		QC
308	733	OU4-SS-MBLANK16-062105	QC		QC
309	733	OU4-SS-CLPSTD15-062105	QC		QC
310	733	OU4-SS-STD6-062105	QC		QC

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-01(6-12) 6 - 12 06/21/05	OU4-SS-03-02(6-12) 6 - 12 06/21/05	OU4-SS-03-03(6-12) 6 - 12 06/21/05	OU4-SS-03-04(6-12) 6 - 12 06/21/05	OU4-SS-03-05(6-12) 6 - 12 06/21/05	OU4-SS-03-06(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 6200)							
Arsenic	mg/kg	12.8 U	6.47 J	7.98 U	34.76 J	5.17 U	7.54 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-06(1-6) 1 - 6 06/21/05	OU4-SS-03-07(0-1) 0 - 1 06/21/05	OU4-SS-03-07(1-6) 1 - 6 06/21/05	OU4-SS-03-08(0-1) 0 - 1 06/21/05	OU4-SS-03-08(1-6) 1 - 6 06/21/05	OU4-SS-03-09(0-1) 0 - 1 06/21/05	OU4-SS-03-09(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	17.53 J	7.72 U	13.05 U	9.76 U	25.93 J	16.11 U	29.78 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-10(0-1) 0 - 1 06/21/05	OU4-SS-03-10(1-6) 1 - 6 06/21/05	OU4-SS-03-11(0-1) 0 - 1 06/21/05	OU4-SS-03-11(1-6) 1 - 6 06/21/05	OU4-SS-03-11(6-12) 6 - 12 06/21/05	OU4-SS-03-11(12-18) 12 - 18 06/21/05	OU4-SS-03-12(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	24.4 J	31.01 J	24.07 J	16.34 J	12.87 U	18.84 J	18.38 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-12(1-6) 1 - 6 06/21/05	OU4-SS-03-12(6-12) 6 - 12 06/21/05	OU4-SS-03-12(12-18) 12 - 18 06/21/05	OU4-SS-03-13(0-1) 0 - 1 06/21/05	OU4-SS-03-13(1-6) 1 - 6 06/21/05	OU4-SS-03-13(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	25.22 J	16.41 J	32.03 J	13.33 U	21.76 J	29.28 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-13(12-18) 12 - 18 06/02/05	OU4-SS-03-14(0-1) 0 - 1 06/21/05	OU4-SS-03-14(1-6) 1 - 6 06/21/05	OU4-SS-03-14(6-12) 6 - 12 06/21/05	OU4-SS-03-14(12-18) 12 - 18 06/21/05	OU4-SS-03-15(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	59.6 J	17.39 J	20.1 J	24.3 J	13.49 J	19.39 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-15(1-6) 1 - 6 06/21/05	OU4-SS-03-15(6-12) 6 - 12 06/21/05	OU4-SS-03-15(12-18) 12 - 18 06/21/05	OU4-SS-03-16(0-1) 0 - 1 06/21/05	OU4-SS-03-16(12-18) 12 - 18 06/21/05	OU4-SS-03-17(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	31.48 J	32.1 J	15.54 J	20.97 J	16.55 J	25.23 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-17(12-18) 12 - 18 06/21/05	OU4-SS-03-18(0-1) 0 - 1 06/02/05	OU4-SS-03-18(12-18) 12 - 18 06/21/05	OU4-SS-03-19(0-1) 0 - 1 06/21/05	OU4-SS-03-19(12-18) 12 - 18 06/21/05	OU4-SS-04-01(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	19.68 J	45.07 J	5.34 U	18.7 J	11.59 J	8.35 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-02(6-12) 6 - 12 06/21/05	OU4-SS-04-03(6-12) 6 - 12 06/21/05	OU4-SS-04-04(6-12) 6 - 12 06/21/05	OU4-SS-04-05(6-12) 6 - 12 06/21/05	OU4-SS-04-06(0-1) 0 - 1 06/21/05	OU4-SS-04-06(12-18) 12 - 18 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	6.69 J	36.7 J	10.16 J	16.44 J	8.03 J	10.7 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-07(0-1) 0 - 1 06/21/05	OU4-SS-04-07(12-18) 12 - 18 06/21/05	OU4-SS-04-08(0-1) 0 - 1 06/21/05	OU4-SS-04-08(12-18) 12 - 18 06/21/05	OU4-SS-04-09(0-1) 0 - 1 06/21/05	OU4-SS-04-09(12-18) 12 - 18 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	15.31 J	6.32 J	6.89 U	15.84 J	18.85 J	8.07 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-10(0-1) 0 - 1 06/21/05	OU4-SS-04-10(12-18) 12 - 18 06/21/05	OU4-SS-04-11(1-6) 1 - 6 06/21/05	OU4-SS-04-12(1-6) 1 - 6 06/21/05	OU4-SS-04-13(1-6) 1 - 6 06/21/05	OU4-SS-04-14(1-6) 1 - 6 06/21/05	OU4-SS-04-15(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	10.45 U	6.51 J	23.61 J	11.66 U	12.21 J	11.95 J	12.89 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-16(0-1) 0 - 1 06/21/05	OU4-SS-04-17(0-1) 0 - 1 06/21/05	OU4-SS-04-18(0-1) 0 - 1 06/21/05	OU4-SS-04-19(0-1) 0 - 1 06/21/05	OU4-SS-04-20(0-1) 0 - 1 06/21/05	OU4-SS-04-24(0-1) 0 - 1 06/21/05	OU4-SS-04-24(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	16.7 J	8.36 U	8.98 J	8.21 J	10.72 U	9.35 J	19.15 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-25(0-1) 0 - 1 06/21/05	OU4-SS-04-25(1-6) 1 - 6 06/21/05	OU4-SS-04-26(0-1) 0 - 1 06/21/05	OU4-SS-04-26(1-6) 1 - 6 06/21/05	OU4-SS-04-27(0-1) 0 - 1 06/21/05	OU4-SS-04-27(1-6) 1 - 6 06/21/05	OU4-SS-05-01(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	7 U	8.61 U	33.55 J	17.17 J	12.85 U	7.67 J	16.51 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-01(1-6) 1 - 6 06/21/05	OU4-SS-05-02(0-1) 0 - 1 06/21/05	OU4-SS-05-02(1-6) 1 - 6 06/21/05	OU4-SS-05-03(0-1) 0 - 1 06/21/05	OU4-SS-05-03(1-6) 1 - 6 06/21/05	OU4-SS-05-04(0-1) 0 - 1 06/21/05	OU4-SS-05-04(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	13.19 U	13.76 U	17.23 J	16.92 U	11.7 J	10.62 U	7.95 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-05(0-1) 0 - 1 06/21/05	OU4-SS-05-05(1-6) 1 - 6 06/21/05	OU4-SS-05-06(1-6) 1 - 6 06/21/05	OU4-SS-05-06(6-12) 6 - 12 06/21/05	OU4-SS-05-07(1-6) 1 - 6 06/21/05	OU4-SS-05-07(6-12) 6 - 12 06/21/05	OU4-SS-05-08(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	17.9 J	10.48 J	14.59 J	4.27 U	24.69 J	3.99 U	10.91 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-08(6-12) 6 - 12 06/21/05	OU4-SS-05-09(1-6) 1 - 6 06/06/05	OU4-SS-05-09(6-12) 6 - 12 06/06/05	OU4-SS-05-10(1-6) 1 - 6 06/21/05	OU4-SS-05-10(6-12) 6 - 12 06/21/05	OU4-SS-05-11(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	4.48 U	152.09 J	78.73 J	11.6 J	7.76 J	11.15 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-11(6-12) 6 - 12 06/21/05	OU4-SS-05-12(1-6) 1 - 6 06/21/05	OU4-SS-05-12(6-12) 6 - 12 06/21/05	OU4-SS-05-13(1-6) 1 - 6 06/21/05	OU4-SS-05-13(6-12) 6 - 12 06/21/05	OU4-SS-05-14(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	5.22 J	9.3 J	12.37 J	10.39 J	10.09 J	12.35 U J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-14(6-12) 6 - 12 06/21/05	OU4-SS-05-15(0-1) 0 - 1 06/21/05	OU4-SS-05-15(1-6) 1 - 6 06/21/05	OU4-SS-05-15(6-12) 6 - 12 06/21/05	OU4-SS-05-15(12-18) 12 - 18 06/21/05	OU4-SS-05-16(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	9.05 J	10.14 U	16.13 J	8.49 U	9.01 J	23.48 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-05-17(0-1) 0 - 1 06/21/05	OU4-SS-05-18(0-1) 0 - 1 06/21/05	OU4-SS-05-19(0-1) 0 - 1 06/21/05	OU4-SS-06-01(1-6) 1 - 6 06/21/05	OU4-SS-06-02(1-6) 1 - 6 06/21/05	OU4-SS-06-03(1-6) 1 - 6 06/21/05	OU4-SS-06-04(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	13.74 U	19.52 J	12.42 J	24.48	24.78 J	13.32 J	11.35 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-05(0-1) 0 - 1 06/21/05	OU4-SS-06-05(1-6) 1 - 6 06/21/05	OU4-SS-06-05(6-12) 6 - 12 06/21/05	OU4-SS-06-06(0-1) 0 - 1 06/21/05	OU4-SS-06-06(1-6) 1 - 6 06/21/05	OU4-SS-06-06(6-12) 6 - 12 06/21/05	OU4-SS-06-07(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	10.28 J	15.49 J	20.28 J	9.08 J	14.06 J	10.5 U	15.74 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-07(1-6) 1 - 6 06/21/05	OU4-SS-06-07(6-12) 6 - 12 06/21/05	OU4-SS-06-08(0-1) 0 - 1 06/21/05	OU4-SS-06-08(1-6) 1 - 6 06/21/05	OU4-SS-06-08(6-12) 6 - 12 06/21/05	OU4-SS-06-09(0-1) 0 - 1 06/21/05	OU4-SS-06-09(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	21.54 J	10.41 J	9.4 J	17.13 J	12.26 U	9.94 J	11.73 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-09(6-12) 6 - 12 06/21/05	OU4-SS-06-10(0-1) 0 - 1 06/21/05	OU4-SS-06-10(1-6) 1 - 6 06/21/05	OU4-SS-06-10(6-12) 6 - 12 06/21/05	OU4-SS-06-10(12-18) 12 - 18 06/21/05	OU4-SS-06-11(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.99 U	10.25 J	17.91 J	19.64 J	8.96 J	13.48 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-11(1-6) 1 - 6 06/21/05	OU4-SS-06-11(6-12) 6 - 12 06/21/05	OU4-SS-06-11(12-18) 12 - 18 06/21/05	OU4-SS-06-12(0-1) 0 - 1 06/21/05	OU4-SS-06-12(1-6) 1 - 6 06/21/05	OU4-SS-06-12(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	16.13 J	15.31 J	4.75 U	12.03 J	11.46 J	8.52 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-12(12-18) 12 - 18 06/21/05	OU4-SS-06-13(0-1) 0 - 1 06/21/05	OU4-SS-06-13(1-6) 1 - 6 06/21/05	OU4-SS-06-13(6-12) 6 - 12 06/21/05	OU4-SS-06-13(12-18) 12 - 18 06/21/05	OU4-SS-06-14(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	4.91 J	17.62 J	22.65 J	28.14 J	9.88 J	16.28 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-14(1-6) 1 - 6 06/21/05	OU4-SS-06-14(6-12) 6 - 12 06/21/05	OU4-SS-06-14(12-18) 12 - 18 06/21/05	OU4-SS-06-15(0-1) 0 - 1 06/21/05	OU4-SS-06-15(6-12) 6 - 12 06/21/05	OU4-SS-06-16(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	18.21 J	20.79 J	6.29 J	14.71 J	6.3 J	10.74 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-16(6-12) 6 - 12 06/21/05	OU4-SS-06-17(0-1) 0 - 1 06/21/05	OU4-SS-06-17(6-12) 6 - 12 06/21/05	OU4-SS-06-18(0-1) 0 - 1 06/21/05	OU4-SS-06-18(6-12) 6 - 12 06/21/05	OU4-SS-06-19(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	12.97 J	9.57 U	5.99 U	11.21 J	11.26 J	7.18 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-19(6-12) 6 - 12 06/21/05	OU4-SS-06-20(0-1) 0 - 1 06/21/05	OU4-SS-06-20(1-6) 1 - 6 06/21/05	OU4-SS-06-21(0-1) 0 - 1 06/21/05	OU4-SS-06-21(1-6) 1 - 6 06/21/05	OU4-SS-06-22(0-1) 0 - 1 06/21/05	OU4-SS-06-22(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	20.44 J	11.6 J	20.04 J	15.65 J	18.6 J	21.4 J	12.24 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-23(0-1) 0 - 1 06/21/05	OU4-SS-06-23(1-6) 1 - 6 06/21/05	OU4-SS-07-01(0-1) 0 - 1 06/21/05	OU4-SS-07-01(1-6) 1 - 6 06/21/05	OU4-SS-07-01(6-12) 6 - 12 06/21/05	OU4-SS-07-02(0-1) 0 - 1 06/21/05	OU4-SS-07-02(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	8.1 U	27.69 J	19.53 J	24.19 J	6.6 J	15.75 U	21.71 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-23(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 6200)		
Arsenic	mg/kg	10.3 [9.83] J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-02(6-12) 6 - 12 06/21/05	OU4-SS-07-03(0-1) 0 - 1 06/21/05	OU4-SS-07-03(1-6) 1 - 6 06/21/05	OU4-SS-07-03(6-12) 6 - 12 06/21/05	OU4-SS-07-04(0-1) 0 - 1 06/21/05	OU4-SS-07-04(1-6) 1 - 6 06/21/05	OU4-SS-07-04(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	17.32 J	15.36 J	26.42 J	21.37 J	17.19 J	17.74 J	26.27 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-05(0-1) 0 - 1 06/21/05	OU4-SS-07-05(1-6) 1 - 6 06/21/05	OU4-SS-07-05(6-12) 6 - 12 06/21/05	OU4-SS-07-06(1-6) 1 - 6 06/21/05	OU4-SS-07-06(6-12) 6 - 12 06/21/05	OU4-SS-07-07(1-6) 1 - 6 06/21/05	OU4-SS-07-07(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	10.58 U	8.39 U	14.56 J	14.77 J	7.6 J	30.67 J	18.91 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-08(1-6) 1 - 6 06/21/05	OU4-SS-07-08(6-12) 6 - 12 06/21/05	OU4-SS-07-09(1-6) 1 - 6 06/21/05	OU4-SS-07-09(6-12) 6 - 12 06/21/05	OU4-SS-07-10(0-1) 0 - 1 06/21/05	OU4-SS-07-10(1-6) 1 - 6 06/21/05	OU4-SS-07-10(6-12) 6 - 12 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	8.54 U	7.4 U	8.26 U	18.1 J	6.1 J	6.76 J	16.42 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-11(0-1) 0 - 1 06/21/05	OU4-SS-07-11(1-6) 1 - 6 06/21/05	OU4-SS-07-11(6-12) 6 - 12 06/21/05	OU4-SS-07-12(0-1) 0 - 1 06/21/05	OU4-SS-07-12(1-6) 1 - 6 06/21/05	OU4-SS-07-12(6-12) 6 - 12 06/21/05	OU4-SS-07-13(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	12.19 J	11.29 U	10.41 U	15.78 J	18.8 J	15.56 J	10.96 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-13(1-6) 1 - 6 06/21/05	OU4-SS-07-13(6-12) 6 - 12 06/21/05	OU4-SS-07-14(0-1) 0 - 1 06/21/05	OU4-SS-07-14(1-6) 1 - 6 06/21/05	OU4-SS-07-14(6-12) 6 - 12 06/21/05	OU4-SS-07-15(0-1) 0 - 1 06/21/05	OU4-SS-07-16(0-1) 0 - 1 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	22.59 J	11.02 U	12.78 J	13.19 U	9.17 U	15.49 J	10.04 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-17(0-1) 0 - 1 06/21/05	OU4-SS-07-18(0-1) 0 - 1 06/21/05	OU4-SS-07-18(1-6) 1 - 6 06/21/05	OU4-SS-07-19(0-1) 0 - 1 06/21/05	OU4-SS-07-19(1-6) 1 - 6 06/21/05	OU4-SS-07-20(0-1) 0 - 1 06/21/05	OU4-SS-07-20(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	14.75 J	11.02 U	16.04 J	19.15 J	13.08 U	10.11 J	15.04 J

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-07-21(0-1) 0 - 1 06/21/05	OU4-SS-07-21(1-6) 1 - 6 06/21/05
Metals - XRF (USEPA SW-846 62(			
Arsenic	mg/kg	11.46 U	10.85 U

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	213.39	208	102.59	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	209.51	208	100.73	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	243.68	208	117.15	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	209.86	208	100.89	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD5-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.92	208	106.69	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD6-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	251.41	208	120.87	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD7-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.09	208	106.29	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD8-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	263.86	208	126.86	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD9-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	226.3	208	108.80	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD10-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	245.38	208	117.97	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD11-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	245.87	208	118.21	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD12-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	235.19	208	113.07	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD13-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	241.81	208	116.25	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD14-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	246.5	208	118.51	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD15-062105 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	247.44	208	118.96	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS									
Sample ID:		OU4-SS-MBLANK1-062105	OU4-SS-MBLANK2-062105	OU4-SS-MBLANK3-062105	OU4-SS-MBLANK4-062105	OU4-SS-MBLANK5-062105	OU4-SS-MBLANK6-062105	OU4-SS-MBLANK7-062105	OU4-SS-MBLANK8-062105
Date Collected:	Units	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05
Analytes associated with the method blanks were not detected.									

METHOD BLANKS CONTINUED…									
Sample ID:		OU4-SS-MBLANK9-062105	OU4-SS-MBLANK10-062105	OU4-SS-MBLANK11-062105	OU4-SS-MBLANK12-062105	OU4-SS-MBLANK13-062105	OU4-SS-MBLANK14-062105	OU4-SS-MBLANK15-062105	OU4-SS-MBLANK16-062105
Date Collected:	Units	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05	06/21/05
Analytes associated with the method blanks were not detected.									

EQUIPMENT BLANKS
Equipment blanks were not collected.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-01-16(0-1) 0 - 1 6/20/05	OU4-SS-01-16(0-1)-1 0 - 1 6/21/05	OU4-SS-01-16(0-1)-2 0 - 1 6/21/05	OU4-SS-01-16(0-1)-3 0 - 1 6/21/05	OU4-SS-01-16(0-1)-4 0 - 1 6/21/05	OU4-SS-01-16(0-1)-5 0 - 1 6/21/05	OU4-SS-01-16(0-1)-6 0 - 1 6/21/05	OU4-SS-01-16(0-1)-7 0 - 1 6/21/05
Metals - XRF (USEPA SW-846 6200)										
Arsenic	mg/kg	8 6	24.56	92.65	92.17	87.7	81 96	81.73	94 36	85.69

The data are not adjusted for percent solids.

	Arsenic
STD	22 94823725
MEAN	80.1025
RSD	28 64859056

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF062205

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF062205 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-08-01(0-1)	Soil	6/22/2005				X	
OU4-SS-08-02(0-1)	Soil	6/22/2005				X	
OU4-SS-08-03(0-1)	Soil	6/22/2005				X	
OU4-SS-08-04(0-1)	Soil	6/22/2005				X	
OU4-SS-08-05(0-1)	Soil	6/22/2005				X	
OU4-SS-08-01(6-12)	Soil	6/22/2005				X	
OU4-SS-08-02(6-12)	Soil	6/22/2005				X	
OU4-SS-08-03(6-12)	Soil	6/22/2005				X	
OU4-SS-08-04(6-12)	Soil	6/22/2005				X	
OU4-SS-08-05(6-12)	Soil	6/22/2005				X	
OU4-SS-08-06(1-6)	Soil	6/22/2005				X	
OU4-SS-08-07(1-6)	Soil	6/22/2005				X	
OU4-SS-08-08(1-6)	Soil	6/22/2005				X	
OU4-SS-08-09(1-6)	Soil	6/22/2005				X	
OU4-SS-08-10(1-6)	Soil	6/22/2005				X	
OU4-SS-08-10(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-08-11(6-12)	Soil	6/22/2005				X	
OU4-SS-08-12(6-12)	Soil	6/22/2005				X	
OU4-SS-08-13(6-12)	Soil	6/22/2005				X	
OU4-SS-08-14(6-12)	Soil	6/22/2005				X	
OU4-SS-08-15(6-12)	Soil	6/22/2005				X	
OU4-SS-08-16(0-1)	Soil	6/22/2005				X	
OU4-SS-08-17(0-1)	Soil	6/22/2005				X	
OU4-SS-08-18(0-1)	Soil	6/22/2005				X	
OU4-SS-08-19(0-1)	Soil	6/22/2005				X	
OU4-SS-08-19(0-1)-DUP	Soil	6/22/2005				X	
OU4-SS-08-16(1-6)	Soil	6/22/2005				X	
OU4-SS-08-17(1-6)	Soil	6/22/2005				X	
OU4-SS-08-18(1-6)	Soil	6/22/2005				X	
OU4-SS-08-19(1-6)	Soil	6/22/2005				X	
OU4-SS-08-16(6-12)	Soil	6/22/2005				X	
OU4-SS-08-17(6-12)	Soil	6/22/2005				X	
OU4-SS-08-18(6-12)	Soil	6/22/2005				X	
OU4-SS-08-19(6-12)	Soil	6/22/2005				X	
OU4-SS-08-16(12-18)	Soil	6/22/2005				X	
OU4-SS-08-17(12-18)	Soil	6/22/2005				X	
OU4-SS-08-18(12-18)	Soil	6/22/2005				X	
OU4-SS-08-19(12-18)	Soil	6/22/2005				X	
OU4-SS-09-01(0-1)	Soil	6/22/2005				X	
OU4-SS-09-02(0-1)	Soil	6/22/2005				X	
OU4-SS-09-03(0-1)	Soil	6/22/2005				X	
OU4-SS-09-04(0-1)	Soil	6/22/2005				X	
OU4-SS-09-05(0-1)	Soil	6/22/2005				X	
OU4-SS-09-05(0-1)-DUP	Soil	6/22/2005				X	
OU4-SS-09-01(1-6)	Soil	6/22/2005				X	
OU4-SS-09-02(1-6)	Soil	6/22/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-09-03(1-6)	Soil	6/22/2005				X	
OU4-SS-09-04(1-6)	Soil	6/22/2005				X	
OU4-SS-09-05(1-6)	Soil	6/22/2005				X	
OU4-SS-09-01(6-12)	Soil	6/22/2005				X	
OU4-SS-09-02(6-12)	Soil	6/22/2005				X	
OU4-SS-09-03(6-12)	Soil	6/22/2005				X	
OU4-SS-09-04(6-12)	Soil	6/22/2005				X	
OU4-SS-09-05(6-12)	Soil	6/22/2005				X	
OU4-SS-09-06(0-1)	Soil	6/22/2005				X	
OU4-SS-09-07(0-1)	Soil	6/22/2005				X	
OU4-SS-09-08(0-1)	Soil	6/22/2005				X	
OU4-SS-09-09(0-1)	Soil	6/22/2005				X	
OU4-SS-09-10(0-1)	Soil	6/22/2005				X	
OU4-SS-09-06(1-6)	Soil	6/22/2005				X	
OU4-SS-09-07(1-6)	Soil	6/22/2005				X	
OU4-SS-09-08(1-6)	Soil	6/22/2005				X	
OU4-SS-09-09(1-6)	Soil	6/22/2005				X	
OU4-SS-09-10(1-6)	Soil	6/22/2005				X	
OU4-SS-09-10(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-09-06(6-12)	Soil	6/22/2005				X	
OU4-SS-09-07(6-12)	Soil	6/22/2005				X	
OU4-SS-09-08(6-12)	Soil	6/22/2005				X	
OU4-SS-09-09(6-12)	Soil	6/22/2005				X	
OU4-SS-09-10(6-12)	Soil	6/22/2005				X	
OU4-SS-09-11(0-1)	Soil	6/22/2005				X	
OU4-SS-09-12(0-1)	Soil	6/22/2005				X	
OU4-SS-09-13(0-1)	Soil	6/22/2005				X	
OU4-SS-09-14(0-1)	Soil	6/22/2005				X	
OU4-SS-09-15(0-1)	Soil	6/22/2005				X	
OU4-SS-09-11(1-6)	Soil	6/22/2005				X	
OU4-SS-09-12(1-6)	Soil	6/22/2005				X	
OU4-SS-09-13(1-6)	Soil	6/22/2005				X	
OU4-SS-09-14(1-6)	Soil	6/22/2005				X	
OU4-SS-09-15(1-6)	Soil	6/22/2005				X	
OU4-SS-09-15(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-09-11(6-12)	Soil	6/22/2005				X	
OU4-SS-09-12(6-12)	Soil	6/22/2005				X	
OU4-SS-09-13(6-12)	Soil	6/22/2005				X	
OU4-SS-09-14(6-12)	Soil	6/22/2005				X	
OU4-SS-09-15(6-12)	Soil	6/22/2005				X	
OU4-SS-09-16(0-1)	Soil	6/22/2005				X	
OU4-SS-09-17(0-1)	Soil	6/22/2005				X	
OU4-SS-09-18(0-1)	Soil	6/22/2005				X	
OU4-SS-09-19(0-1)	Soil	6/22/2005				X	
OU4-SS-09-16(1-6)	Soil	6/22/2005				X	
OU4-SS-09-17(1-6)	Soil	6/22/2005				X	
OU4-SS-09-18(1-6)	Soil	6/22/2005				X	
OU4-SS-09-19(1-6)	Soil	6/22/2005				X	
OU4-SS-09-20(1-6)	Soil	6/22/2005				X	
OU4-SS-09-21(1-6)	Soil	6/22/2005				X	
OU4-SS-09-22(1-6)	Soil	6/22/2005				X	
OU4-SS-09-23(1-6)	Soil	6/22/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-09-23(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-10-01(0-1)	Soil	6/22/2005				X	
OU4-SS-10-02(0-1)	Soil	6/22/2005				X	
OU4-SS-10-03(0-1)	Soil	6/22/2005				X	
OU4-SS-10-04(0-1)	Soil	6/22/2005				X	
OU4-SS-10-01(1-6)	Soil	6/22/2005				X	
OU4-SS-10-02(1-6)	Soil	6/22/2005				X	
OU4-SS-10-03(1-6)	Soil	6/22/2005				X	
OU4-SS-10-04(1-6)	Soil	6/22/2005				X	
OU4-SS-10-05(0-1)	Soil	6/22/2005				X	
OU4-SS-10-06(0-1)	Soil	6/22/2005				X	
OU4-SS-10-07(0-1)	Soil	6/22/2005				X	
OU4-SS-10-08(0-1)	Soil	6/22/2005				X	
OU4-SS-10-05(1-6)	Soil	6/22/2005				X	
OU4-SS-10-06(1-6)	Soil	6/22/2005				X	
OU4-SS-10-07(1-6)	Soil	6/22/2005				X	
OU4-SS-10-08(1-6)	Soil	6/22/2005				X	
OU4-SS-10-11(1-6)	Soil	6/22/2005				X	
OU4-SS-10-12(1-6)	Soil	6/22/2005				X	
OU4-SS-10-13(1-6)	Soil	6/22/2005				X	
OU4-SS-10-14(1-6)	Soil	6/22/2005				X	
OU4-SS-10-14(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-11-01(0-1)	Soil	6/22/2005				X	
OU4-SS-11-02(0-1)	Soil	6/22/2005				X	
OU4-SS-11-03(0-1)	Soil	6/22/2005				X	
OU4-SS-11-04(0-1)	Soil	6/22/2005				X	
OU4-SS-11-01(6-12)	Soil	6/22/2005				X	
OU4-SS-11-02(6-12)	Soil	6/22/2005				X	
OU4-SS-11-03(6-12)	Soil	6/22/2005				X	
OU4-SS-11-04(6-12)	Soil	6/22/2005				X	
OU4-SS-11-01(12-18)	Soil	6/22/2005				X	
OU4-SS-11-02(12-18)	Soil	6/22/2005				X	
OU4-SS-11-03(12-18)	Soil	6/22/2005				X	
OU4-SS-11-04(12-18)	Soil	6/22/2005				X	
OU4-SS-11-05(0-1)	Soil	6/22/2005				X	
OU4-SS-11-06(0-1)	Soil	6/22/2005				X	
OU4-SS-11-07(0-1)	Soil	6/22/2005				X	
OU4-SS-11-08(0-1)	Soil	6/22/2005				X	
OU4-SS-11-09(0-1)	Soil	6/22/2005				X	
OU4-SS-11-09(0-1)-DUP	Soil	6/22/2005				X	
OU4-SS-11-05(1-6)	Soil	6/22/2005				X	
OU4-SS-11-06(1-6)	Soil	6/22/2005				X	
OU4-SS-11-07(1-6)	Soil	6/22/2005				X	
OU4-SS-11-08(1-6)	Soil	6/22/2005				X	
OU4-SS-11-09(1-6)	Soil	6/22/2005				X	
OU4-SS-11-05(6-12)	Soil	6/22/2005				X	
OU4-SS-11-06(6-12)	Soil	6/22/2005				X	
OU4-SS-11-07(6-12)	Soil	6/22/2005				X	
OU4-SS-11-08(6-12)	Soil	6/22/2005				X	
OU4-SS-11-09(6-12)	Soil	6/22/2005				X	
OU4-SS-11-05(12-18)	Soil	6/22/2005				X	
OU4-SS-11-06(12-18)	Soil	6/22/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-11-07(12-18)	Soil	6/22/2005				X	
OU4-SS-11-08(12-18)	Soil	6/22/2005				X	
OU4-SS-11-09(12-18)	Soil	6/22/2005				X	
OU4-SS-11-10(0-1)	Soil	6/22/2005				X	
OU4-SS-11-11(0-1)	Soil	6/22/2005				X	
OU4-SS-11-12(0-1)	Soil	6/22/2005				X	
OU4-SS-11-13(0-1)	Soil	6/22/2005				X	
OU4-SS-11-13(0-1)-DUP	Soil	6/22/2005				X	
OU4-SS-11-10(1-6)	Soil	6/22/2005				X	
OU4-SS-11-11(1-6)	Soil	6/22/2005				X	
OU4-SS-11-12(1-6)	Soil	6/22/2005				X	
OU4-SS-11-13(1-6)	Soil	6/22/2005				X	
OU4-SS-11-10(6-12)	Soil	6/22/2005				X	
OU4-SS-11-11(6-12)	Soil	6/22/2005				X	
OU4-SS-11-12(6-12)	Soil	6/22/2005				X	
OU4-SS-11-13(6-12)	Soil	6/22/2005				X	
OU4-SS-11-10(12-18)	Soil	6/22/2005				X	
OU4-SS-11-11(12-18)	Soil	6/22/2005				X	
OU4-SS-11-12(12-18)	Soil	6/22/2005				X	
OU4-SS-11-13(12-18)	Soil	6/22/2005				X	
OU4-SS-12-01(0-1)	Soil	6/22/2005				X	
OU4-SS-12-02(0-1)	Soil	6/22/2005				X	
OU4-SS-12-03(0-1)	Soil	6/22/2005				X	
OU4-SS-12-04(0-1)	Soil	6/22/2005				X	
OU4-SS-12-05(0-1)	Soil	6/22/2005				X	
OU4-SS-12-05(0-1)-DUP	Soil	6/22/2005				X	
OU4-SS-12-01(1-6)	Soil	6/22/2005				X	
OU4-SS-12-02(1-6)	Soil	6/22/2005				X	
OU4-SS-12-03(1-6)	Soil	6/22/2005				X	
OU4-SS-12-04(1-6)	Soil	6/22/2005				X	
OU4-SS-12-05(1-6)	Soil	6/22/2005				X	
OU4-SS-12-06(0-1)	Soil	6/22/2005				X	
OU4-SS-12-07(0-1)	Soil	6/22/2005				X	
OU4-SS-12-08(0-1)	Soil	6/22/2005				X	
OU4-SS-12-09(0-1)	Soil	6/22/2005				X	
OU4-SS-12-10(0-1)	Soil	6/22/2005				X	
OU4-SS-12-11(0-1)	Soil	6/22/2005				X	
OU4-SS-12-12(0-1)	Soil	6/22/2005				X	
OU4-SS-12-13(0-1)	Soil	6/22/2005				X	
OU4-SS-12-14(0-1)	Soil	6/22/2005				X	
OU4-SS-12-11(1-6)	Soil	6/22/2005				X	
OU4-SS-12-12(1-6)	Soil	6/22/2005				X	
OU4-SS-12-13(1-6)	Soil	6/22/2005				X	
OU4-SS-12-14(1-6)	Soil	6/22/2005				X	
OU4-SS-12-14(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-13-01(0-1)	Soil	6/22/2005				X	
OU4-SS-13-02(0-1)	Soil	6/22/2005				X	
OU4-SS-13-03(0-1)	Soil	6/22/2005				X	
OU4-SS-13-04(0-1)	Soil	6/22/2005				X	
OU4-SS-13-05(0-1)	Soil	6/22/2005				X	
OU4-SS-13-01(1-6)	Soil	6/22/2005				X	
OU4-SS-13-02(1-6)	Soil	6/22/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-13-03(1-6)	Soil	6/22/2005				X	
OU4-SS-13-04(1-6)	Soil	6/22/2005				X	
OU4-SS-13-05(1-6)	Soil	6/22/2005				X	
OU4-SS-13-01(12-18)	Soil	6/22/2005				X	
OU4-SS-13-02(12-18)	Soil	6/22/2005				X	
OU4-SS-13-03(12-18)	Soil	6/22/2005				X	
OU4-SS-13-04(12-18)	Soil	6/22/2005				X	
OU4-SS-13-05(12-18)	Soil	6/22/2005				X	
OU4-SS-13-06(0-1)	Soil	6/22/2005				X	
OU4-SS-13-07(0-1)	Soil	6/22/2005				X	
OU4-SS-13-08(0-1)	Soil	6/22/2005				X	
OU4-SS-13-09(0-1)	Soil	6/22/2005				X	
OU4-SS-13-10(0-1)	Soil	6/22/2005				X	
OU4-SS-13-06(1-6)	Soil	6/22/2005				X	
OU4-SS-13-07(1-6)	Soil	6/22/2005				X	
OU4-SS-13-08(1-6)	Soil	6/22/2005				X	
OU4-SS-13-09(1-6)	Soil	6/22/2005				X	
OU4-SS-13-10(1-6)-DUP	Soil	6/22/2005				X	
OU4-SS-13-06(12-18)	Soil	6/22/2005				X	
OU4-SS-13-07(12-18)	Soil	6/22/2005				X	
OU4-SS-13-08(12-18)	Soil	6/22/2005				X	
OU4-SS-13-09(12-18)	Soil	6/22/2005				X	
OU4-SS-13-10(12-18)	Soil	6/22/2005				X	
OU4-SS-13-11(0-1)	Soil	6/22/2005				X	
OU4-SS-13-12(0-1)	Soil	6/22/2005				X	
OU4-SS-13-13(0-1)	Soil	6/22/2005				X	
OU4-SS-13-14(0-1)	Soil	6/22/2005				X	
OU4-SS-13-11(1-6)	Soil	6/22/2005				X	
OU4-SS-13-12(1-6)	Soil	6/22/2005				X	
OU4-SS-13-13(1-6)	Soil	6/22/2005				X	
OU4-SS-13-14(1-6)	Soil	6/22/2005				X	
OU4-SS-13-14(1-6)-DUP	Soil	6/22/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

No target analytes were detected in the associated blanks.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

All associated calibration standards exhibited acceptable recoveries.

4. Precision Measurement

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-07-18(6-12). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-08-10(1-6)/ OU4-SS-08-10(1-6)-DUP	Arsenic	10.2		11.98		16.1
OU4-SS-08-19(0-1)/OU4-SS-08-19(0-1)-DUP	Arsenic	10.4		9.56	U	AC

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-09-05(0-1)/OU4-SS-09-05(0-1)-DUP	Arsenic	18.61		16.03		14.9
OU4-SS-09-10(1-6)/OU4-SS-09-10(1-6)-DUP	Arsenic	20.65		11.86	U	AC
OU4-SS-09-15(1-6)/OU4-SS-09-15(1-6)-DUP	Arsenic	22.82		17.61		25.8
OU4-SS-09-23(1-6)/OU4-SS-09-23(1-6)-DUP	Arsenic	31.73		29.42		7.6
OU4-SS-10-14(1-6)/OU4-SS-10-14(1-6)-DUP	Arsenic	18.23	U	18.34	U	AC
OU4-SS-11-09(0-1)/OU4-SS-11-09(0-1)-DUP	Arsenic	13.46		11.89	U	AC
OU4-SS-11-13(0-1)/OU4-SS-11-13(0-1)-DUP	Arsenic	14.65		11.11	U	AC
OU4-SS-12-05(0-1)/OU4-SS-12-05(0-1)-DUP	Arsenic	14.25		13.2		7.7
OU4-SS-12-14(1-6)/OU4-SS-12-14(1-6)-DUP	Arsenic	9.77	U	10.02	U	AC
OU4-SS-13-10(1-6)/OU4-SS-13-10(1-6)-DUP	Arsenic	7.78	U	7.82	U	AC
OU4-SS-13-14(1-6)/OU4-SS-13-14(1-6)-DUP	Arsenic	13.22		9.49	U	AC

ND not detected.
AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/22/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-062205	QC		QC
2	733	OU4-SS-EBLANK1-062205	QC		QC
3	733	OU4-SS-MBLANK1-062205	QC		QC
4	733	OU4-SS-CLPSTD1-062205	QC		QC
5	733	OU4-SS-07-18(6-12)-1	QC		QC
6	733	OU4-SS-07-18(6-12)-2	QC		QC
7	733	OU4-SS-07-18(6-12)-3	QC		QC
8	733	OU4-SS-07-18(6-12)-4	QC		QC
9	733	OU4-SS-07-18(6-12)-5	QC		QC
10	733	OU4-SS-07-18(6-12)-6	QC		QC
11	733	OU4-SS-07-18(6-12)-7	QC		QC
12	733	OU4-SS-08-01(0-1)	FS	08	D11
13	733	OU4-SS-08-02(0-1)	FS	08	D11
14	733	OU4-SS-08-03(0-1)	FS	08	D11
15	733	OU4-SS-08-04(0-1)	FS	08	D11
16	733	OU4-SS-08-05(0-1)	FS	08	D11
17	733	OU4-SS-08-01(6-12)	FS	08	D11
18	733	OU4-SS-08-02(6-12)	FS	08	D11
19	733	OU4-SS-08-03(6-12)	FS	08	D11
20	733	OU4-SS-08-04(6-12)	FS	08	D11
21	733	OU4-SS-08-05(6-12)	FS	08	D11
22	733	OU4-SS-08-06(1-6)	FS	08	D11
23	733	OU4-SS-08-07(1-6)	FS	08	D11
24	733	OU4-SS-08-08(1-6)	FS	08	D11
25	733	OU4-SS-08-09(1-6)	FS	08	D11
26	733	OU4-SS-08-10(1-6)	FS	08	D11
27	733	OU4-SS-08-10(1-6)-DUP	QC		QC
28	733	OU4-SS-EBLANK2-062205	QC		QC
29	733	OU4-SS-MBLANK2-062205	QC		QC
30	733	OU4-SS-CLPSTD2-062205	QC		QC
31	733	OU4-SS-08-11(6-12)	FS	08	D11
32	733	OU4-SS-08-12(6-12)	FS	08	D11
33	733	OU4-SS-08-13(6-12)	FS	08	D11
34	733	OU4-SS-08-14(6-12)	FS	08	D11
35	733	OU4-SS-08-15(6-12)	FS	08	D11
36	733	OU4-SS-08-16(0-1)	FS	08	D11
37	733	OU4-SS-08-17(0-1)	FS	08	D11

Electronic Log for 06/22/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-08-18(0-1)	FS	08	D11
39	733	OU4-SS-08-19(0-1)	FS	08	D11
40	733	OU4-SS-08-19(0-1)-DUP	QC		QC
41	733	OU4-SS-EBLANK3-062205	QC		QC
42	733	OU4-SS-MBLANK3-062205	QC		QC
43	733	OU4-SS-CLPSTD3-062205	QC		QC
44	733	OU4-SS-08-16(1-6)	FS	08	D11
45	733	OU4-SS-08-17(1-6)	FS	08	D11
46	733	OU4-SS-08-18(1-6)	FS	08	D11
47	733	OU4-SS-08-19(1-6)	FS	08	D11
48	733	OU4-SS-08-16(6-12)	FS	08	D11
49	733	OU4-SS-08-17(6-12)	FS	08	D11
50	733	OU4-SS-08-18(6-12)	FS	08	D11
51	733	OU4-SS-08-19(6-12)	FS	08	D11
52	733	OU4-SS-08-16(12-18)	FS	08	D11
53	733	OU4-SS-08-17(12-18)	FS	08	D11
54	733	OU4-SS-08-18(12-18)	FS	08	D11
55	733	OU4-SS-08-19(12-18)	FS	08	D11
56	733	OU4-SS-09-01(0-1)	FS	09	S13
57	733	OU4-SS-09-02(0-1)	FS	09	S13
58	733	OU4-SS-09-03(0-1)	FS	09	S13
59	733	OU4-SS-09-04(0-1)	FS	09	S13
60	733	OU4-SS-09-05(0-1)	FS	09	S13
61	733	OU4-SS-09-05(0-1)-DUP	QC		QC
62	733	OU4-SS-EBLANK4-062205	QC		QC
63	733	OU4-SS-MBLANK4-062205	QC		QC
64	733	OU4-SS-CLPSTD4-062205	QC		QC
65	733	OU4-SS-09-01(1-6)	FS	09	S13
66	733	OU4-SS-09-02(1-6)	FS	09	S13
67	733	OU4-SS-09-03(1-6)	FS	09	S13
68	733	OU4-SS-09-04(1-6)	FS	09	S13
69	733	OU4-SS-09-05(1-6)	FS	09	S13
70	733	OU4-SS-09-01(6-12)	FS	09	S13
71	733	OU4-SS-09-02(6-12)	FS	09	S13
72	733	OU4-SS-09-03(6-12)	FS	09	S13
73	733	OU4-SS-09-04(6-12)	FS	09	S13
74	733	OU4-SS-09-05(6-12)	FS	09	S13

Electronic Log for 06/22/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-09-06(0-1)	FS	09	S13
76	733	OU4-SS-09-07(0-1)	FS	09	S13
77	733	OU4-SS-09-08(0-1)	FS	09	S13
78	733	OU4-SS-09-09(0-1)	FS	09	S13
79	733	OU4-SS-09-10(0-1)	FS	09	S13
80	733	OU4-SS-09-06(1-6)	FS	09	S13
81	733	OU4-SS-09-07(1-6)	FS	09	S13
82	733	OU4-SS-09-08(1-6)	FS	09	S13
83	733	OU4-SS-09-09(1-6)	FS	09	S13
84	733	OU4-SS-09-10(1-6)	FS	09	S13
85	733	OU4-SS-09-10(1-6)-DUP	QC		QC
86	733	OU4-SS-STD2-062205	QC		QC
87	733	OU4-SS-EBLANK5-062205	QC		QC
88	733	OU4-SS-MBLANK5-062205	QC		QC
89	733	OU4-SS-CLPSTD5-062205	QC		QC
90	733	OU4-SS-09-06(6-12)	FS	09	S13
91	733	OU4-SS-09-07(6-12)	FS	09	S13
92	733	OU4-SS-09-08(6-12)	FS	09	S13
93	733	OU4-SS-09-09(6-12)	FS	09	S13
94	733	OU4-SS-09-10(6-12)	FS	09	S13
95	733	OU4-SS-09-11(0-1)	FS	09	S13
96	733	OU4-SS-09-12(0-1)	FS	09	S13
97	733	OU4-SS-09-13(0-1)	FS	09	S13
98	733	OU4-SS-09-14(0-1)	FS	09	S13
99	733	OU4-SS-09-15(0-1)	FS	09	S13
100	733	OU4-SS-09-11(1-6)	FS	09	S13
101	733	OU4-SS-09-12(1-6)	FS	09	S13
102	733	OU4-SS-09-13(1-6)	FS	09	S13
103	733	OU4-SS-09-14(1-6)	FS	09	S13
104	733	OU4-SS-09-15(1-6)	FS	09	S13
105	733	OU4-SS-09-15(1-6)-DUP	QC		QC
106	733	OU4-SS-EBLANK6-062205	QC		QC
107	733	OU4-SS-MBLANK6-062205	QC		QC
108	733	OU4-SS-CLPSTD6-062205	QC		QC
109	733	OU4-SS-09-11(6-12)	FS	09	S13
110	733	OU4-SS-09-12(6-12)	FS	09	S13
111	733	OU4-SS-09-13(6-12)	FS	09	S13

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
112	733	OU4-SS-09-14(6-12)	FS	09	S13
113	733	OU4-SS-09-15(6-12)	FS	09	S13
114	733	OU4-SS-09-16(0-1)	FS	09	S13
115	733	OU4-SS-09-17(0-1)	FS	09	S13
116	733	OU4-SS-09-18(0-1)	FS	09	S13
117	733	OU4-SS-09-19(0-1)	FS	09	S13
118	733	OU4-SS-09-16(1-6)	FS	09	S13
119	733	OU4-SS-09-17(1-6)	FS	09	S13
120	733	OU4-SS-09-18(1-6)	FS	09	S13
121	733	OU4-SS-09-19(1-6)	FS	09	S13
122	733	OU4-SS-09-20(1-6)	FS	09	S13
123	733	OU4-SS-09-21(1-6)	FS	09	S13
124	733	OU4-SS-09-22(1-6)	FS	09	S13
125	733	OU4-SS-09-23(1-6)	FS	09	S13
126	733	OU4-SS-09-23(1-6)-DUP	QC		QC
127	733	OU4-SS-EBLANK7-062205	QC		QC
128	733	OU4-SS-MBLANK7-062205	QC		QC
129	733	OU4-SS-CLPSTD7-062205	QC		QC
130	733	OU4-SS-10-01(0-1)	FS	10	S21
131	733	OU4-SS-10-02(0-1)	FS	10	S21
132	733	OU4-SS-10-03(0-1)	FS	10	S21
133	733	OU4-SS-10-04(0-1)	FS	10	S21
134	733	OU4-SS-10-01(1-6)	FS	10	S21
135	733	OU4-SS-10-02(1-6)	FS	10	S21
136	733	OU4-SS-10-03(1-6)	FS	10	S21
137	733	OU4-SS-10-04(1-6)	FS	10	S21
138	733	OU4-SS-10-05(0-1)	FS	10	S21
139	733	OU4-SS-10-06(0-1)	FS	10	S21
140	733	OU4-SS-10-07(0-1)	FS	10	S21
141	733	OU4-SS-10-08(0-1)	FS	10	S21
142	733	OU4-SS-10-05(1-6)	FS	10	S21
143	733	OU4-SS-10-06(1-6)	FS	10	S21
144	733	OU4-SS-10-07(1-6)	FS	10	S21
145	733	OU4-SS-10-08(1-6)	FS	10	S21
146	733	OU4-SS-10-11(1-6)	FS	10	S21
147	733	OU4-SS-10-12(1-6)	FS	10	S21
148	733	OU4-SS-10-13(1-6)	FS	10	S21

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
149	733	OU4-SS-10-14(1-6)	FS	10	S21
150	733	OU4-SS-10-14(1-6)-DUP	QC		QC
151	733	OU4-SS-EBLANK8-062205	QC		QC
152	733	OU4-SS-MBLANK8-062205	QC		QC
153	733	OU4-SS-CLPSTD8-062205	QC		QC
154	733	OU4-SS-11-01(0-1)	FS	11	D16
155	733	OU4-SS-11-02(0-1)	FS	11	D16
156	733	OU4-SS-11-03(0-1)	FS	11	D16
157	733	OU4-SS-11-04(0-1)	FS	11	D16
158	733	OU4-SS-11-01(6-12)	FS	11	D16
159	733	OU4-SS-11-02(6-12)	FS	11	D16
160	733	OU4-SS-11-03(6-12)	FS	11	D16
161	733	OU4-SS-11-04(6-12)	FS	11	D16
162	733	OU4-SS-11-01(12-18)	FS	11	D16
163	733	OU4-SS-11-02(12-18)	FS	11	D16
164	733	OU4-SS-11-03(12-18)	FS	11	D16
165	733	OU4-SS-11-04(12-18)	FS	11	D16
166	733	OU4-SS-11-05(0-1)	FS	11	D16
167	733	OU4-SS-11-06(0-1)	FS	11	D16
168	733	OU4-SS-11-07(0-1)	FS	11	D16
169	733	OU4-SS-11-08(0-1)	FS	11	D16
170	733	OU4-SS-11-09(0-1)	FS	11	D16
171	733	OU4-SS-11-09(0-1)-DUP	QC		QC
172	733	OU4-SS-EBLANK9-062205	QC		QC
173	733	OU4-SS-MBLANK9-062205	QC		QC
174	733	OU4-SS-CLPSTD9-062205	QC		QC
175	733	OU4-SS-STD3-062205	QC		QC
176	733	OU4-SS-11-05(1-6)	FS	11	D16
177	733	OU4-SS-11-06(1-6)	FS	11	D16
178	733	OU4-SS-11-07(1-6)	FS	11	D16
179	733	OU4-SS-11-08(1-6)	FS	11	D16
180	733	OU4-SS-11-09(1-6)	FS	11	D16
181	733	OU4-SS-11-05(6-12)	FS	11	D16
182	733	OU4-SS-11-06(6-12)	FS	11	D16
183	733	OU4-SS-11-07(6-12)	FS	11	D16
184	733	OU4-SS-11-08(6-12)	FS	11	D16
185	733	OU4-SS-11-09(6-12)	FS	11	D16

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
186	733	OU4-SS-11-05(12-18)	FS	11	D16
187	733	OU4-SS-11-06(12-18)	FS	11	D16
188	733	OU4-SS-11-07(12-18)	FS	11	D16
189	733	OU4-SS-11-08(12-18)	FS	11	D16
190	733	OU4-SS-11-09(12-18)	FS	11	D16
191	733	OU4-SS-11-10(0-1)	FS	11	D16
192	733	OU4-SS-11-11(0-1)	FS	11	D16
193	733	OU4-SS-11-12(0-1)	FS	11	D16
194	733	OU4-SS-11-13(0-1)	FS	11	D16
195	733	OU4-SS-11-13(0-1)-DUP	QC		QC
196	733	OU4-SS-EBLANK10-062205	QC		QC
197	733	OU4-SS-MBLANK10-062205	QC		QC
198	733	OU4-SS-CLPSTD10-062205	QC		QC
199	733	OU4-SS-11-10(1-6)	FS	11	D16
200	733	OU4-SS-11-11(1-6)	FS	11	D16
201	733	OU4-SS-11-12(1-6)	FS	11	D16
202	733	OU4-SS-11-13(1-6)	FS	11	D16
203	733	OU4-SS-11-10(6-12)	FS	11	D16
204	733	OU4-SS-11-11(6-12)	FS	11	D16
205	733	OU4-SS-11-12(6-12)	FS	11	D16
206	733	OU4-SS-11-13(6-12)	FS	11	D16
207	733	OU4-SS-11-10(12-18)	FS	11	D16
208	733	OU4-SS-11-11(12-18)	FS	11	D16
209	733	OU4-SS-11-12(12-18)	FS	11	D16
210	733	OU4-SS-11-13(12-18)	FS	11	D16
211	733	OU4-SS-12-01(0-1)	FS	12	S19
212	733	OU4-SS-12-02(0-1)	FS	12	S19
213	733	OU4-SS-12-03(0-1)	FS	12	S19
214	733	OU4-SS-12-04(0-1)	FS	12	S19
215	733	OU4-SS-12-05(0-1)	FS	12	S19
216	733	OU4-SS-12-05(0-1)-DUP	QC		QC
217	733	OU4-SS-EBLANK11-062205	QC		QC
218	733	OU4-SS-MBLANK11-062205	QC		QC
219	733	OU4-SS-CLPSTD11-062205	QC		QC
220	733	OU4-SS-12-01(1-6)	FS	12	S19
221	733	OU4-SS-12-02(1-6)	FS	12	S19
222	733	OU4-SS-12-03(1-6)	FS	12	S19

Electronic Log for 06/22/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
223	733	OU4-SS-12-04(1-6)	FS	12	S19
224	733	OU4-SS-12-05(1-6)	FS	12	S19
225	733	OU4-SS-12-06(0-1)	FS	12	S19
226	733	OU4-SS-12-07(0-1)	FS	12	S19
227	733	OU4-SS-12-08(0-1)	FS	12	S19
228	733	OU4-SS-12-09(0-1)	FS	12	S19
229	733	OU4-SS-12-10(0-1)	FS	12	S19
230	733	OU4-SS-12-11(0-1)	FS	12	S19
231	733	OU4-SS-12-12(0-1)	FS	12	S19
232	733	OU4-SS-12-13(0-1)	FS	12	S19
233	733	OU4-SS-12-14(0-1)	FS	12	S19
234	733	OU4-SS-12-11(1-6)	FS	12	S19
235	733	OU4-SS-12-12(1-6)	FS	12	S19
236	733	OU4-SS-12-13(1-6)	FS	12	S19
237	733	OU4-SS-12-14(1-6)	FS	12	S19
238	733	OU4-SS-12-14(1-6)-DUP	QC		QC
239	733	OU4-SS-EBLANK12-062205	QC		QC
240	733	OU4-SS-MBLANK12-062205	QC		QC
241	733	OU4-SS-CLPSTD12-062205	QC		QC
242	733	OU4-SS-13-01(0-1)	FS	13	S02
243	733	OU4-SS-13-02(0-1)	FS	13	S02
244	733	OU4-SS-13-03(0-1)	FS	13	S02
245	733	OU4-SS-13-04(0-1)	FS	13	S02
246	733	OU4-SS-13-05(0-1)	FS	13	S02
247	733	OU4-SS-13-01(1-6)	FS	13	S02
248	733	OU4-SS-13-02(1-6)	FS	13	S02
249	733	OU4-SS-13-03(1-6)	FS	13	S02
250	733	OU4-SS-13-04(1-6)	FS	13	S02
251	733	OU4-SS-13-05(1-6)	FS	13	S02
252	733	OU4-SS-13-01(12-18)	FS	13	S02
253	733	OU4-SS-13-02(12-18)	FS	13	S02
254	733	OU4-SS-13-03(12-18)	FS	13	S02
255	733	OU4-SS-13-04(12-18)	FS	13	S02
256	733	OU4-SS-13-05(12-18)	FS	13	S02
257	733	OU4-SS-13-06(0-1)	FS	13	S02
258	733	OU4-SS-13-07(0-1)	FS	13	S02
259	733	OU4-SS-13-08(0-1)	FS	13	S02

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
260	733	OU4-SS-13-09(0-1)	FS	13	S02
261	733	OU4-SS-13-10(0-1)	FS	13	S02
262	733	OU4-SS-13-06(1-6)	FS	13	S02
263	733	OU4-SS-13-07(1-6)	FS	13	S02
264	733	OU4-SS-13-08(1-6)	FS	13	S02
265	733	OU4-SS-13-09(1-6)	FS	13	S02
266	733	OU4-SS-STD4-062205	QC		QC
267	733	OU4-SS-13-10(1-6)	FS	13	S02
268	733	OU4-SS-EBLANK13-062205	QC		QC
269	733	OU4-SS-MBLANK13-062205	QC		QC
270	733	OU4-SS-CLPSTD13-062205	QC		QC
271	733	OU4-SS-13-10(1-6)-DUP	QC		QC
272	733	OU4-SS-13-06(12-18)	FS	13	S02
273	733	OU4-SS-13-07(12-18)	FS	13	S02
274	733	OU4-SS-13-08(12-18)	FS	13	S02
275	733	OU4-SS-13-09(12-18)	FS	13	S02
276	733	OU4-SS-13-10(12-18)	FS	13	S02
277	733	OU4-SS-13-11(0-1)	FS	13	S02
278	733	OU4-SS-13-12(0-1)	FS	13	S02
279	733	OU4-SS-13-13(0-1)	FS	13	S02
280	733	OU4-SS-13-14(0-1)	FS	13	S02
281	733	OU4-SS-13-11(1-6)	FS	13	S02
282	733	OU4-SS-13-12(1-6)	FS	13	S02
283	733	OU4-SS-13-13(1-6)	FS	13	S02
284	733	OU4-SS-13-14(1-6)	FS	13	S02
285	733	OU4-SS-13-14(1-6)-DUP	QC		QC
286	733	OU4-SS-EBLANK14-062205	QC		QC
287	733	OU4-SS-MBLANK14-062205	QC		QC
288	733	OU4-SS-CLPSTD14-062205	QC		QC
289	733	OU4-SS-STD5-062205	QC		QC

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-01(0-1) 0 - 1 06/22/05	OU4-SS-08-01(6-12) 6 - 12 06/22/05	OU4-SS-08-02(0-1) 0 - 1 06/22/05	OU4-SS-08-02(6-12) 6 - 12 06/22/05	OU4-SS-08-03(0-1) 0 - 1 06/22/05	OU4-SS-08-03(6-12) 6 - 12 06/22/05	OU4-SS-08-04(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	mg/kg	11.99	6.26 U	13.16	6.46 U	7.51 U	18.11	9.17 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-04(6-12) 6 - 12 06/22/05	OU4-SS-08-05(0-1) 0 - 1 06/22/05	OU4-SS-08-05(6-12) 6 - 12 06/22/05	OU4-SS-08-06(1-6) 1 - 6 06/22/05	OU4-SS-08-07(1-6) 1 - 6 06/22/05	OU4-SS-08-08(1-6) 1 - 6 06/22/05	OU4-SS-08-09(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	5.69 U	11.19	5.96	9.31	26.1	32.96	8.43

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-10(1-6) 1 - 6 06/22/05	OU4-SS-08-11(6-12) 6 - 12 06/22/05	OU4-SS-08-12(6-12) 6 - 12 06/22/05	OU4-SS-08-13(6-12) 6 - 12 06/22/05	OU4-SS-08-14(6-12) 6 - 12 06/22/05	OU4-SS-08-15(6-12) 6 - 12 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.2	15.5	25.38	7.81 U	5.24 U	6.82 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-16(0-1) 0 - 1 06/22/05	OU4-SS-08-16(1-6) 1 - 6 06/22/05	OU4-SS-08-16(6-12) 6 - 12 06/22/05	OU4-SS-08-16(12-18) 12 - 18 06/22/05	OU4-SS-08-17(0-1) 0 - 1 06/22/05	OU4-SS-08-17(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	13.44	19.1	5.89 U	4.9 U	11.8 U	24.46

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-17(6-12) 6 - 12 06/22/05	OU4-SS-08-17(12-18) 12 - 18 06/22/05	OU4-SS-08-18(0-1) 0 - 1 06/22/05	OU4-SS-08-18(1-6) 1 - 6 06/22/05	OU4-SS-08-18(6-12) 6 - 12 06/22/05	OU4-SS-08-18(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	7.13	11.58	13.64	8.42 U	10.71	5.42 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-19(0-1) 0 - 1 06/22/05	OU4-SS-08-19(1-6) 1 - 6 06/22/05	OU4-SS-08-19(6-12) 6 - 12 06/22/05	OU4-SS-08-19(12-18) 12 - 18 06/22/05	OU4-SS-09-01(0-1) 0 - 1 06/22/05	OU4-SS-09-01(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.4	8.45 U	13.53	15.46 U	7	11.75

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-01(6-12) 6 - 12 06/22/05	OU4-SS-09-02(0-1) 0 - 1 06/22/05	OU4-SS-09-02(1-6) 1 - 6 06/22/05	OU4-SS-09-02(6-12) 6 - 12 06/22/05	OU4-SS-09-03(0-1) 0 - 1 06/22/05	OU4-SS-09-03(1-6) 1 - 6 06/22/05	OU4-SS-09-03(6-12) 6 - 12 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	5.72	10.11 U	15.78	21.23	16.6	18.57	9.72

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-04(0-1) 0 - 1 06/22/05	OU4-SS-09-04(1-6) 1 - 6 06/22/05	OU4-SS-09-04(6-12) 6 - 12 06/22/05	OU4-SS-09-05(0-1) 0 - 1 06/22/05	OU4-SS-09-05(1-6) 1 - 6 06/08/05	OU4-SS-09-05(6-12) 6 - 12 06/22/05	OU4-SS-09-06(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	15.22	31.89	14.69	18.61	49.62	7.07	10.34 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-06(1-6) 1 - 6 06/22/05	OU4-SS-09-06(6-12) 6 - 12 06/22/05	OU4-SS-09-07(0-1) 0 - 1 06/08/05	OU4-SS-09-07(1-6) 1 - 6 06/08/05	OU4-SS-09-07(6-12) 6 - 12 06/22/05	OU4-SS-09-08(0-1) 0 - 1 06/22/05	OU4-SS-09-08(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	16.08	10.89	45.64	64.45	8.59	10.49	20.16

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-08(6-12) 6 - 12 06/22/05	OU4-SS-09-09(0-1) 0 - 1 06/22/05	OU4-SS-09-09(1-6) 1 - 6 06/22/05	OU4-SS-09-09(6-12) 6 - 12 06/22/05	OU4-SS-09-10(0-1) 0 - 1 06/22/05	OU4-SS-09-10(1-6) 1 - 6 06/22/05	OU4-SS-09-10(6-12) 6 - 12 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	12.89	10.1 U	22.46	15	10.23	20.65	10.07

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-11(6-12) 6 - 12 06/22/05	OU4-SS-09-12(6-12) 6 - 12 06/22/05	OU4-SS-09-13(6-12) 6 - 12 06/22/05	OU4-SS-09-14(6-12) 6 - 12 06/22/05	OU4-SS-09-15(6-12) 6 - 12 06/22/05	OU4-SS-09-16(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	9.32 U	16.93	10.48	10.6	9.89	8.07

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-16(1-6) 1 - 6 06/22/05	OU4-SS-09-17(0-1) 0 - 1 06/22/05	OU4-SS-09-17(1-6) 1 - 6 06/22/05	OU4-SS-09-18(0-1) 0 - 1 06/22/05	OU4-SS-09-18(1-6) 1 - 6 06/22/05	OU4-SS-09-19(0-1) 0 - 1 06/22/05	OU4-SS-09-19(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	8.02	18.76	9.16 U	9.76	17.98	18.14	13.74

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-09-20(1-6) 1 - 6 06/22/05	OU4-SS-09-21(1-6) 1 - 6 06/22/05	OU4-SS-09-22(1-6) 1 - 6 06/22/05	OU4-SS-09-23(1-6) 1 - 6 06/22/05	OU4-SS-10-01(0-1) 0 - 1 06/22/05	OU4-SS-10-01(1-6) 1 - 6 06/22/05	OU4-SS-10-02(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	23.3	11.15	11.98 U	31.73	12.96 U	14.45	17.46

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-10-02(1-6) 1 - 6 06/22/05	OU4-SS-10-03(0-1) 0 - 1 06/22/05	OU4-SS-10-03(1-6) 1 - 6 06/22/05	OU4-SS-10-04(0-1) 0 - 1 06/22/05	OU4-SS-10-04(1-6) 1 - 6 06/22/05	OU4-SS-10-05(0-1) 0 - 1 06/22/05	OU4-SS-10-05(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	21.41	19.73	24.05	14.05	15.83	14.1	16.6

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-10-06(0-1) 0 - 1 06/22/05	OU4-SS-10-06(1-6) 1 - 6 06/22/05	OU4-SS-10-07(0-1) 0 - 1 06/22/05	OU4-SS-10-07(1-6) 1 - 6 06/22/05	OU4-SS-10-08(0-1) 0 - 1 06/22/05	OU4-SS-10-08(1-6) 1 - 6 06/22/05	OU4-SS-10-11(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	32.95	19.85	21.68	28.69	40.22	13.8 U	11.49 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-10-12(1-6) 1 - 6 06/22/05	OU4-SS-10-13(1-6) 1 - 6 06/22/05	OU4-SS-10-14(1-6) 1 - 6 06/22/05	OU4-SS-11-01(0-1) 0 - 1 06/22/05	OU4-SS-11-01(6-12) 6 - 12 06/22/05	OU4-SS-11-01(12-18) 12 - 18 06/09/05	OU4-SS-11-02(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	15.17 U	22.73	18.23 U	13.8	21.94	62.88	19.17

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-02(6-12) 6 - 12 06/22/05	OU4-SS-11-02(12-18) 12 - 18 06/09/05	OU4-SS-11-03(0-1) 0 - 1 06/22/05	OU4-SS-11-03(6-12) 6 - 12 06/22/05	OU4-SS-11-03(12-18) 12 - 18 06/22/05	OU4-SS-11-04(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	20.1	87.2	13.69	14.35	6.35 U	13.79 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-04(6-12) 6 - 12 06/22/05	OU4-SS-11-04(12-18) 12 - 18 06/22/05	OU4-SS-11-05(0-1) 0 - 1 06/22/05	OU4-SS-11-05(1-6) 1 - 6 06/22/05	OU4-SS-11-05(6-12) 6 - 12 06/22/05	OU4-SS-11-05(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	25.19	16.26	13.24	15.31	14.09	11.66

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-06(0-1) 0 - 1 06/22/05	OU4-SS-11-06(1-6) 1 - 6 06/22/05	OU4-SS-11-06(6-12) 6 - 12 06/22/05	OU4-SS-11-06(12-18) 12 - 18 06/22/05	OU4-SS-11-07(0-1) 0 - 1 06/22/05	OU4-SS-11-07(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	13.23	12.79 U	18.87	17.36	19.83	17.31

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-07(6-12) 6 - 12 06/22/05	OU4-SS-11-07(12-18) 12 - 18 06/22/05	OU4-SS-11-08(0-1) 0 - 1 06/22/05	OU4-SS-11-08(1-6) 1 - 6 06/22/05	OU4-SS-11-08(6-12) 6 - 12 06/22/05	OU4-SS-11-08(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	18.07	12.32	17.14	12.17 U	16.08	22

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-09(0-1) 0 - 1 06/22/05	OU4-SS-11-09(1-6) 1 - 6 06/22/05	OU4-SS-11-09(6-12) 6 - 12 06/22/05	OU4-SS-11-09(12-18) 12 - 18 06/22/05	OU4-SS-11-10(0-1) 0 - 1 06/22/05	OU4-SS-11-10(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	13.46	19.81	11.34 U	9.67 U	19.17	12.09 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-10(6-12) 6 - 12 06/22/05	OU4-SS-11-10(12-18) 12 - 18 06/22/05	OU4-SS-11-11(0-1) 0 - 1 06/22/05	OU4-SS-11-11(1-6) 1 - 6 06/22/05	OU4-SS-11-11(6-12) 6 - 12 06/22/05	OU4-SS-11-11(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	9.3 U	15.06	12 U	17.47	14.78	38.73

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-12(0-1) 0 - 1 06/22/05	OU4-SS-11-12(1-6) 1 - 6 06/22/05	OU4-SS-11-12(6-12) 6 - 12 06/22/05	OU4-SS-11-12(12-18) 12 - 18 06/09/05	OU4-SS-11-13(0-1) 0 - 1 06/22/05	OU4-SS-11-13(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	15.68	11.72	19.98	59.69	14.65	11.39 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-13(6-12) 6 - 12 06/22/05	OU4-SS-11-13(12-18) 12 - 18 06/22/05	OU4-SS-12-01(0-1) 0 - 1 06/22/05	OU4-SS-12-01(1-6) 1 - 6 06/22/05	OU4-SS-12-02(0-1) 0 - 1 06/22/05	OU4-SS-12-02(1-6) 1 - 6 06/22/05	OU4-SS-12-03(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	8.27 U	16.21 U	10.8	10.99 U	7.9 U	15.63	7.41 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-12-03(1-6) 1 - 6 06/22/05	OU4-SS-12-04(0-1) 0 - 1 06/22/05	OU4-SS-12-04(1-6) 1 - 6 06/22/05	OU4-SS-12-05(0-1) 0 - 1 06/22/05	OU4-SS-12-05(1-6) 1 - 6 06/22/05	OU4-SS-12-06(0-1) 0 - 1 06/22/05	OU4-SS-12-07(0-1) 0 - 1 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	12.09 U	10.12	20.39	14.25	17.1	9.82 U	9.73

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-12-08(0-1) 0 - 1 06/22/05	OU4-SS-12-09(0-1) 0 - 1 06/22/05	OU4-SS-12-10(0-1) 0 - 1 06/22/05	OU4-SS-12-11(0-1) 0 - 1 06/22/05	OU4-SS-12-11(1-6) 1 - 6 06/22/05	OU4-SS-12-12(0-1) 0 - 1 06/22/05	OU4-SS-12-12(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	12.4	16.41	7.94 U	14.11	24.31	16.8 U	15.59

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-12-13(0-1) 0 - 1 06/22/05	OU4-SS-12-13(1-6) 1 - 6 06/22/05	OU4-SS-12-14(0-1) 0 - 1 06/22/05	OU4-SS-12-14(1-6) 1 - 6 06/22/05	OU4-SS-13-01(0-1) 0 - 1 06/22/05	OU4-SS-13-01(1-6) 1 - 6 06/22/05	OU4-SS-13-01(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	10.52 U	7.9 U	12.44	9.77 U	13.41	27.33	4.66 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-02(0-1) 0 - 1 06/22/05	OU4-SS-13-02(1-6) 1 - 6 06/22/05	OU4-SS-13-02(12-18) 12 - 18 06/22/05	OU4-SS-13-03(0-1) 0 - 1 06/22/05	OU4-SS-13-03(1-6) 1 - 6 06/22/05	OU4-SS-13-03(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	12.4 U	7.75	16.12	12.19 U	7.65	12.06

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-04(0-1) 0 - 1 06/22/05	OU4-SS-13-04(1-6) 1 - 6 06/22/05	OU4-SS-13-04(12-18) 12 - 18 06/22/05	OU4-SS-13-05(0-1) 0 - 1 06/22/05	OU4-SS-13-05(1-6) 1 - 6 06/22/05	OU4-SS-13-05(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	9.45 U	8.81 U	16.8	11.69 U	15.72	11.68

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-06(0-1) 0 - 1 06/22/05	OU4-SS-13-06(1-6) 1 - 6 06/22/05	OU4-SS-13-06(12-18) 12 - 18 06/22/05	OU4-SS-13-07(0-1) 0 - 1 06/22/05	OU4-SS-13-07(1-6) 1 - 6 06/22/05	OU4-SS-13-07(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.29 U	11.53 U	24.19	8.95 U	27.09	8.8 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-08(0-1) 0 - 1 06/22/05	OU4-SS-13-08(1-6) 1 - 6 06/22/05	OU4-SS-13-08(12-18) 12 - 18 06/22/05	OU4-SS-13-09(0-1) 0 - 1 06/22/05	OU4-SS-13-09(1-6) 1 - 6 06/22/05	OU4-SS-13-09(12-18) 12 - 18 06/22/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.59	7.68 U	22.66	12.28	10.56	9.54 U

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-10(0-1) 0 - 1 06/22/05	OU4-SS-13-10(1-6) 1 - 6 06/22/05	OU4-SS-13-10(12-18) 12 - 18 06/22/05	OU4-SS-13-11(0-1) 0 - 1 06/22/05	OU4-SS-13-11(1-6) 1 - 6 06/22/05	OU4-SS-13-12(0-1) 0 - 1 06/22/05	OU4-SS-13-12(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	17.45	7.78 U	8.47	14.99	5.56 U	18.11	22.39

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-13(0-1) 0 - 1 06/22/05	OU4-SS-13-13(1-6) 1 - 6 06/22/05	OU4-SS-13-14(0-1) 0 - 1 06/22/05	OU4-SS-13-14(1-6) 1 - 6 06/22/05
Metals - XRF (USEPA SW-846 62(					
Arsenic	mg/kg	11.49 U	13.63	9.46	13.22

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.15	208	106.32	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	212.97	208	102.39	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	241.23	208	115.98	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	232.93	208	111.99	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD5-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	224.85	208	108.10	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD6-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	200.19	208	96.25	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD7-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	212.49	208	102.16	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD8-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	226.19	208	108.75	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD9-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	211.49	208	101.68	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD10-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	220.82	208	106.16	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD11-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	230.72	208	110.92	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD12-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	217.8	208	104.71	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD13-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.92	208	106.69	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD14-062205 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	217.7	208	104.66	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS								
Sample ID:		OU4-SS-MBLANK1-062205	OU4-SS-MBLANK2-062205	OU4-SS-MBLANK3-062205	OU4-SS-MBLANK4-062205	OU4-SS-MBLANK5-062205	OU4-SS-MBLANK6-062205	OU4-SS-MBLANK7-062205
Date Collected:	Units	06/22/05	06/22/05	06/22/05	06/22/05	06/22/05	06/22/05	06/22/05
Analytes associated with the method blanks were not detected.								

METHOD BLANKS CONTINUED…								
Sample ID:		OU4-SS-MBLANK8-062205	OU4-SS-MBLANK9-062205	OU4-SS-MBLANK10-062205	OU4-SS-MBLANK11-062205	OU4-SS-MBLANK12-062205	OU4-SS-MBLANK13-062205	OU4-SS-MBLANK14-062205
Date Collected:	Units	06/22/05	06/22/05	06/22/05	06/22/05	06/22/05	06/22/05	06/22/05
Analytes associated with the method blanks were not detected.								

EQUIPMENT BLANKS
Equipment blanks were not collected.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-07-18(6-12) 6 - 12 6/21/05	OU4-SS-07-18(6-12)-1 6 - 12 6/22/05	OU4-SS-07-18(6-12)-2 6 - 12 6/22/05	OU4-SS-07-18(6-12)-3 6 - 12 6/22/05	OU4-SS-07-18(6-12)-4 6 - 12 6/22/05	OU4-SS-07-18(6-12)-5 6 - 12 6/22/05	OU4-SS-07-18(6-12)-6 6 - 12 6/22/05	OU4-SS-07-18(6-12)-7 6 - 12 6/22/05
Metals - XRF (USEPA SW-846 6200)										
Arsenic	mg/kg	8 6	28 81	39.87	40.73	42.35	39.44	44 28	41.12	34.7

The data are not adjusted for percent solids.

	Arsenic
STD	4.925205579
MEAN	38.9125
RSD	12 65712966

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# XRF062305

XRF METALS ANALYSES

Analyses performed by:

Blasland, Bouck & Lee, Inc

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the summary data package for sample delivery group (SDG) # XRF062305 for sampling from the DePue Site, DePue, Illinois. Included with this assessment are a summary of the data review and corrected sample results. Analyses were performed on the samples listed in the table below.

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-14-01(0-1)	Soil	6/23/2005				X	
OU4-SS-14-02(0-1)	Soil	6/23/2005				X	
OU4-SS-14-03(0-1)	Soil	6/23/2005				X	
OU4-SS-14-04(0-1)	Soil	6/23/2005				X	
OU4-SS-14-05(0-1)	Soil	6/23/2005				X	
OU4-SS-14-01(1-6)	Soil	6/23/2005				X	
OU4-SS-14-02(1-6)	Soil	6/23/2005				X	
OU4-SS-14-03(1-6)	Soil	6/23/2005				X	
OU4-SS-14-04(1-6)	Soil	6/23/2005				X	
OU4-SS-14-05(1-6)	Soil	6/23/2005				X	
OU4-SS-14-01(6-12)	Soil	6/23/2005				X	
OU4-SS-14-02(6-12)	Soil	6/23/2005				X	
OU4-SS-14-03(6-12)	Soil	6/23/2005				X	
OU4-SS-14-04(6-12)	Soil	6/23/2005				X	
OU4-SS-14-05(6-12)	Soil	6/23/2005				X	
OU4-SS-14-05(6-12)-DUP	Soil	6/23/2005				X	
OU4-SS-14-06(1-6)	Soil	6/23/2005				X	
OU4-SS-14-07(1-6)	Soil	6/23/2005				X	
OU4-SS-14-08(1-6)	Soil	6/23/2005				X	
OU4-SS-14-09(1-6)	Soil	6/23/2005				X	
OU4-SS-14-10(1-6)	Soil	6/23/2005				X	
OU4-SS-14-06(6-12)	Soil	6/23/2005				X	
OU4-SS-14-07(6-12)	Soil	6/23/2005				X	
OU4-SS-14-08(6-12)	Soil	6/23/2005				X	
OU4-SS-14-09(6-12)	Soil	6/23/2005				X	
OU4-SS-14-10(6-12)	Soil	6/23/2005				X	
OU4-SS-14-10(6-12)-DUP	Soil	6/23/2005				X	
OU4-SS-14-06(12-18)	Soil	6/23/2005				X	
OU4-SS-14-07(12-18)	Soil	6/23/2005				X	
OU4-SS-14-08(12-18)	Soil	6/23/2005				X	
OU4-SS-14-09(12-18)	Soil	6/23/2005				X	
OU4-SS-14-10(12-18)	Soil	6/23/2005				X	
OU4-SS-14-11(0-1)	Soil	6/23/2005				X	
OU4-SS-14-12(0-1)	Soil	6/23/2005				X	
OU4-SS-14-13(0-1)	Soil	6/23/2005				X	
OU4-SS-14-14(0-1)	Soil	6/23/2005				X	
OU4-SS-14-15(0-1)	Soil	6/23/2005				X	
OU4-SS-14-11(1-6)	Soil	6/23/2005				X	
OU4-SS-14-12(1-6)	Soil	6/23/2005				X	
OU4-SS-14-13(1-6)	Soil	6/23/2005				X	
OU4-SS-14-14(1-6)	Soil	6/23/2005				X	
OU4-SS-14-15(1-6)	Soil	6/23/2005				X	
OU4-SS-14-15(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-14-11(6-12)	Soil	6/23/2005				X	
OU4-SS-14-12(6-12)	Soil	6/23/2005				X	
OU4-SS-14-13(6-12)	Soil	6/23/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-14-14(6-12)	Soil	6/23/2005				X	
OU4-SS-14-15(6-12)	Soil	6/23/2005				X	
OU4-SS-14-11(12-18)	Soil	6/23/2005				X	
OU4-SS-14-12(12-18)	Soil	6/23/2005				X	
OU4-SS-14-13(12-18)	Soil	6/23/2005				X	
OU4-SS-14-14(12-18)	Soil	6/23/2005				X	
OU4-SS-14-15(12-18)	Soil	6/23/2005				X	
OU4-SS-14-18(0-1)	Soil	6/23/2005				X	
OU4-SS-14-19(0-1)	Soil	6/23/2005				X	
OU4-SS-14-20(0-1)	Soil	6/23/2005				X	
OU4-SS-14-21(0-1)	Soil	6/23/2005				X	
OU4-SS-14-18(1-6)	Soil	6/23/2005				X	
OU4-SS-14-19(1-6)	Soil	6/23/2005				X	
OU4-SS-14-20(1-6)	Soil	6/23/2005				X	
OU4-SS-14-21(1-6)	Soil	6/23/2005				X	
OU4-SS-14-21(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-14-18(6-12)	Soil	6/23/2005				X	
OU4-SS-14-19(6-12)	Soil	6/23/2005				X	
OU4-SS-14-20(6-12)	Soil	6/23/2005				X	
OU4-SS-14-21(6-12)	Soil	6/23/2005				X	
OU4-SS-15-01(0-1)	Soil	6/23/2005				X	
OU4-SS-15-02(0-1)	Soil	6/23/2005				X	
OU4-SS-15-03(0-1)	Soil	6/23/2005				X	
OU4-SS-15-04(0-1)	Soil	6/23/2005				X	
OU4-SS-15-05(0-1)	Soil	6/23/2005				X	
OU4-SS-15-01(1-6)	Soil	6/23/2005				X	
OU4-SS-15-02(1-6)	Soil	6/23/2005				X	
OU4-SS-15-03(1-6)	Soil	6/23/2005				X	
OU4-SS-15-04(1-6)	Soil	6/23/2005				X	
OU4-SS-15-05(1-6)	Soil	6/23/2005				X	
OU4-SS-15-01(6-12)	Soil	6/23/2005				X	
OU4-SS-15-02(6-12)	Soil	6/23/2005				X	
OU4-SS-15-03(6-12)	Soil	6/23/2005				X	
OU4-SS-15-04(6-12)	Soil	6/23/2005				X	
OU4-SS-14-18(6-12)	Soil	6/23/2005				X	
OU4-SS-14-19(6-12)	Soil	6/23/2005				X	
OU4-SS-14-20(6-12)	Soil	6/23/2005				X	
OU4-SS-14-21(6-12)	Soil	6/23/2005				X	
OU4-SS-15-01(0-1)	Soil	6/23/2005				X	
OU4-SS-15-02(0-1)	Soil	6/23/2005				X	
OU4-SS-15-03(0-1)	Soil	6/23/2005				X	
OU4-SS-15-04(0-1)	Soil	6/23/2005				X	
OU4-SS-15-05(0-1)	Soil	6/23/2005				X	
OU4-SS-15-01(1-6)	Soil	6/23/2005				X	
OU4-SS-15-02(1-6)	Soil	6/23/2005				X	
OU4-SS-15-03(1-6)	Soil	6/23/2005				X	
OU4-SS-15-04(1-6)	Soil	6/23/2005				X	
OU4-SS-15-05(1-6)	Soil	6/23/2005				X	
OU4-SS-15-01(6-12)	Soil	6/23/2005				X	
OU4-SS-15-02(6-12)	Soil	6/23/2005				X	
OU4-SS-15-03(6-12)	Soil	6/23/2005				X	
OU4-SS-15-04(6-12)	Soil	6/23/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-15-14(1-6)	Soil	6/23/2005				X	
OU4-SS-15-15(1-6)	Soil	6/23/2005				X	
OU4-SS-15-11(6-12)	Soil	6/23/2005				X	
OU4-SS-15-12(6-12)	Soil	6/23/2005				X	
OU4-SS-15-13(6-12)	Soil	6/23/2005				X	
OU4-SS-15-14(6-12)	Soil	6/23/2005				X	
OU4-SS-15-15(6-12)	Soil	6/23/2005				X	
OU4-SS-15-15(6-12)-DUP	Soil	6/23/2005				X	
OU4-SS-15-11(12-18)	Soil	6/23/2005				X	
OU4-SS-15-12(12-18)	Soil	6/23/2005				X	
OU4-SS-15-13(12-18)	Soil	6/23/2005				X	
OU4-SS-15-14(12-18)	Soil	6/23/2005				X	
OU4-SS-15-15(12-18)	Soil	6/23/2005				X	
OU4-SS-15-16(0-1)	Soil	6/23/2005				X	
OU4-SS-15-17(0-1)	Soil	6/23/2005				X	
OU4-SS-15-18(0-1)	Soil	6/23/2005				X	
OU4-SS-15-19(0-1)	Soil	6/23/2005				X	
OU4-SS-15-16(1-6)	Soil	6/23/2005				X	
OU4-SS-15-17(1-6)	Soil	6/23/2005				X	
OU4-SS-15-18(1-6)	Soil	6/23/2005				X	
OU4-SS-15-19(1-6)	Soil	6/23/2005				X	
OU4-SS-16-01(0-1)	Soil	6/23/2005				X	
OU4-SS-16-02(0-1)	Soil	6/23/2005				X	
OU4-SS-16-03(0-1)	Soil	6/23/2005				X	
OU4-SS-16-04(0-1)	Soil	6/23/2005				X	
OU4-SS-16-05(0-1)	Soil	6/23/2005				X	
OU4-SS-16-05(0-1)-DUP	Soil	6/23/2005				X	
OU4-SS-16-01(1-6)	Soil	6/23/2005				X	
OU4-SS-16-02(1-6)	Soil	6/23/2005				X	
OU4-SS-16-03(1-6)	Soil	6/23/2005				X	
OU4-SS-16-04(1-6)	Soil	6/23/2005				X	
OU4-SS-16-05(1-6)	Soil	6/23/2005				X	
OU4-SS-16-01(6-12)	Soil	6/23/2005				X	
OU4-SS-16-02(6-12)	Soil	6/23/2005				X	
OU4-SS-16-03(6-12)	Soil	6/23/2005				X	
OU4-SS-16-04(6-12)	Soil	6/23/2005				X	
OU4-SS-16-05(6-12)	Soil	6/23/2005				X	
OU4-SS-16-06(0-1)	Soil	6/23/2005				X	
OU4-SS-16-07(0-1)	Soil	6/23/2005				X	
OU4-SS-16-08(0-1)	Soil	6/23/2005				X	
OU4-SS-16-09(0-1)	Soil	6/23/2005				X	
OU4-SS-16-10(0-1)	Soil	6/23/2005				X	
OU4-SS-16-06(1-6)	Soil	6/23/2005				X	
OU4-SS-16-07(1-6)	Soil	6/23/2005				X	
OU4-SS-16-08(1-6)	Soil	6/23/2005				X	
OU4-SS-16-09(1-6)	Soil	6/23/2005				X	
OU4-SS-16-10(1-6)	Soil	6/23/2005				X	
OU4-SS-16-10(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-16-06(6-12)	Soil	6/23/2005				X	
OU4-SS-16-07(6-12)	Soil	6/23/2005				X	
OU4-SS-16-08(6-12)	Soil	6/23/2005				X	
OU4-SS-16-09(6-12)	Soil	6/23/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-16-10(6-12)	Soil	6/23/2005				X	
OU4-SS-16-06(12-18)	Soil	6/23/2005				X	
OU4-SS-16-07(12-18)	Soil	6/23/2005				X	
OU4-SS-16-08(12-18)	Soil	6/23/2005				X	
OU4-SS-16-09(12-18)	Soil	6/23/2005				X	
OU4-SS-16-10(12-18)	Soil	6/23/2005				X	
OU4-SS-16-11(0-1)	Soil	6/23/2005				X	
OU4-SS-16-12(0-1)	Soil	6/23/2005				X	
OU4-SS-16-13(0-1)	Soil	6/23/2005				X	
OU4-SS-16-14(0-1)	Soil	6/23/2005				X	
OU4-SS-16-15(0-1)	Soil	6/23/2005				X	
OU4-SS-16-11(1-6)	Soil	6/23/2005				X	
OU4-SS-16-12(1-6)	Soil	6/23/2005				X	
OU4-SS-16-13(1-6)	Soil	6/23/2005				X	
OU4-SS-16-14(1-6)	Soil	6/23/2005				X	
OU4-SS-16-15(1-6)	Soil	6/23/2005				X	
OU4-SS-16-15(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-16-11(6-12)	Soil	6/23/2005				X	
OU4-SS-16-12(6-12)	Soil	6/23/2005				X	
OU4-SS-16-13(6-12)	Soil	6/23/2005				X	
OU4-SS-16-14(6-12)	Soil	6/23/2005				X	
OU4-SS-16-15(6-12)	Soil	6/23/2005				X	
OU4-SS-16-16(0-1)	Soil	6/23/2005				X	
OU4-SS-16-17(0-1)	Soil	6/23/2005				X	
OU4-SS-16-18(0-1)	Soil	6/23/2005				X	
OU4-SS-16-19(0-1)	Soil	6/23/2005				X	
OU4-SS-16-20(0-1)	Soil	6/23/2005				X	
OU4-SS-16-16(1-6)	Soil	6/23/2005				X	
OU4-SS-16-17(1-6)	Soil	6/23/2005				X	
OU4-SS-16-18(1-6)	Soil	6/23/2005				X	
OU4-SS-16-19(1-6)	Soil	6/23/2005				X	
OU4-SS-16-20(1-6)	Soil	6/23/2005				X	
OU4-SS-16-16(6-12)	Soil	6/23/2005				X	
OU4-SS-16-17(6-12)	Soil	6/23/2005				X	
OU4-SS-16-18(6-12)	Soil	6/23/2005				X	
OU4-SS-16-19(6-12)	Soil	6/23/2005				X	
OU4-SS-16-20(6-12)	Soil	6/23/2005				X	
OU4-SS-16-21(0-1)	Soil	6/23/2005				X	
OU4-SS-16-22(0-1)	Soil	6/23/2005				X	
OU4-SS-16-23(0-1)	Soil	6/23/2005				X	
OU4-SS-16-24(0-1)	Soil	6/23/2005				X	
OU4-SS-16-24(0-1)-DUP	Soil	6/23/2005				X	
OU4-SS-16-21(1-6)	Soil	6/23/2005				X	
OU4-SS-16-22(1-6)	Soil	6/23/2005				X	
OU4-SS-16-23(1-6)	Soil	6/23/2005				X	
OU4-SS-16-24(1-6)	Soil	6/23/2005				X	
OU4-SS-17-01(0-1)	Soil	6/23/2005				X	
OU4-SS-17-02(0-1)	Soil	6/23/2005				X	
OU4-SS-17-03(0-1)	Soil	6/23/2005				X	
OU4-SS-17-04(0-1)	Soil	6/23/2005				X	
OU4-SS-17-05(0-1)	Soil	6/23/2005				X	
OU4-SS-17-01(1-6)	Soil	6/23/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-17-02(1-6)	Soil	6/23/2005				X	
OU4-SS-17-03(1-6)	Soil	6/23/2005				X	
OU4-SS-17-04(1-6)	Soil	6/23/2005				X	
OU4-SS-17-05(1-6)	Soil	6/23/2005				X	
OU4-SS-17-05(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-17-01(6-12)	Soil	6/23/2005				X	
OU4-SS-17-02(6-12)	Soil	6/23/2005				X	
OU4-SS-17-03(6-12)	Soil	6/23/2005				X	
OU4-SS-17-04(6-12)	Soil	6/23/2005				X	
OU4-SS-17-05(6-12)	Soil	6/23/2005				X	
OU4-SS-17-01(12-18)	Soil	6/23/2005				X	
OU4-SS-17-02(12-18)	Soil	6/23/2005				X	
OU4-SS-17-03(12-18)	Soil	6/23/2005				X	
OU4-SS-17-04(12-18)	Soil	6/23/2005				X	
OU4-SS-17-05(12-18)	Soil	6/23/2005				X	
OU4-SS-17-06(0-1)	Soil	6/23/2005				X	
OU4-SS-17-07(0-1)	Soil	6/23/2005				X	
OU4-SS-17-08(0-1)	Soil	6/23/2005				X	
OU4-SS-17-09(0-1)	Soil	6/23/2005				X	
OU4-SS-17-10(0-1)	Soil	6/23/2005				X	
OU4-SS-17-10(0-1)-DUP	Soil	6/23/2005				X	
OU4-SS-17-06(1-6)	Soil	6/23/2005				X	
OU4-SS-17-07(1-6)	Soil	6/23/2005				X	
OU4-SS-17-08(1-6)	Soil	6/23/2005				X	
OU4-SS-17-09(1-6)	Soil	6/23/2005				X	
OU4-SS-17-10(1-6)	Soil	6/23/2005				X	
OU4-SS-17-06(6-12)	Soil	6/23/2005				X	
OU4-SS-17-07(6-12)	Soil	6/23/2005				X	
OU4-SS-17-08(6-12)	Soil	6/23/2005				X	
OU4-SS-17-09(6-12)	Soil	6/23/2005				X	
OU4-SS-17-10(6-12)	Soil	6/23/2005				X	
OU4-SS-17-06(12-18)	Soil	6/23/2005				X	
OU4-SS-17-07(12-18)	Soil	6/23/2005				X	
OU4-SS-17-08(12-18)	Soil	6/23/2005				X	
OU4-SS-17-09(12-18)	Soil	6/23/2005				X	
OU4-SS-17-10(12-18)	Soil	6/23/2005				X	
OU4-SS-17-10(12-18)-DUP	Soil	6/23/2005				X	
OU4-SS-02-05(6-12)	Soil	6/23/2005				X	
OU4-SS-02-06(6-12)	Soil	6/23/2005				X	
OU4-SS-02-07(6-12)	Soil	6/23/2005				X	
OU4-SS-02-08(6-12)	Soil	6/23/2005				X	
OU4-SS-02-09(6-12)	Soil	6/23/2005				X	
OU4-SS-04-01(0-1)	Soil	6/23/2005				X	
OU4-SS-04-02(0-1)	Soil	6/23/2005				X	
OU4-SS-04-03(0-1)	Soil	6/23/2005				X	
OU4-SS-04-04(0-1)	Soil	6/23/2005				X	
OU4-SS-04-05(0-1)	Soil	6/23/2005				X	
OU4-SS-04-01(1-6)	Soil	6/23/2005				X	
OU4-SS-04-02(1-6)	Soil	6/23/2005				X	
OU4-SS-04-03(1-6)	Soil	6/23/2005				X	
OU4-SS-04-04(1-6)	Soil	6/23/2005				X	
OU4-SS-04-05(1-6)	Soil	6/23/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-04-05(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-04-06(1-6)	Soil	6/23/2005				X	
OU4-SS-04-07(1-6)	Soil	6/23/2005				X	
OU4-SS-04-08(1-6)	Soil	6/23/2005				X	
OU4-SS-04-09(1-6)	Soil	6/23/2005				X	
OU4-SS-04-10(1-6)	Soil	6/23/2005				X	
OU4-SS-04-11(0-1)	Soil	6/23/2005				X	
OU4-SS-04-12(0-1)	Soil	6/23/2005				X	
OU4-SS-04-13(0-1)	Soil	6/23/2005				X	
OU4-SS-04-14(0-1)	Soil	6/23/2005				X	
OU4-SS-04-15(0-1)	Soil	6/23/2005				X	
OU4-SS-04-16(1-6)	Soil	6/23/2005				X	
OU4-SS-04-17(1-6)	Soil	6/23/2005				X	
OU4-SS-04-18(1-6)	Soil	6/23/2005				X	
OU4-SS-04-19(1-6)	Soil	6/23/2005				X	
OU4-SS-04-20(1-6)	Soil	6/23/2005				X	
OU4-SS-05-06(0-1)	Soil	6/23/2005				X	
OU4-SS-05-07(0-1)	Soil	6/23/2005				X	
OU4-SS-05-08(0-1)	Soil	6/23/2005				X	
OU4-SS-05-09(0-1)	Soil	6/23/2005				X	
OU4-SS-05-09(0-1)-DUP	Soil	6/23/2005				X	
OU4-SS-02-01(6-12)	Soil	6/23/2005				X	
OU4-SS-02-02(6-12)	Soil	6/23/2005				X	
OU4-SS-02-03(6-12)	Soil	6/23/2005				X	
OU4-SS-02-04(6-12)	Soil	6/23/2005				X	
OU4-SS-01-11(0-1)	Soil	6/23/2005				X	
OU4-SS-01-12(0-1)	Soil	6/23/2005				X	
OU4-SS-01-13(0-1)	Soil	6/23/2005				X	
OU4-SS-01-14(0-1)	Soil	6/23/2005				X	
OU4-SS-01-15(0-1)	Soil	6/23/2005				X	
OU4-SS-01-15(0-1)-DUP	Soil	6/23/2005				X	
OU4-SS-03-01(0-1)	Soil	6/23/2005				X	
OU4-SS-03-02(0-1)	Soil	6/23/2005				X	
OU4-SS-03-03(0-1)	Soil	6/23/2005				X	
OU4-SS-03-04(0-1)	Soil	6/23/2005				X	
OU4-SS-03-05(0-1)	Soil	6/23/2005				X	
OU4-SS-03-01(1-6)	Soil	6/23/2005				X	
OU4-SS-03-02(1-6)	Soil	6/23/2005				X	
OU4-SS-03-03(1-6)	Soil	6/23/2005				X	
OU4-SS-03-04(1-6)	Soil	6/23/2005				X	
OU4-SS-03-05(1-6)	Soil	6/23/2005				X	
OU4-SS-06-15(1-6)	Soil	6/23/2005				X	
OU4-SS-06-16(1-6)	Soil	6/23/2005				X	
OU4-SS-06-17(1-6)	Soil	6/23/2005				X	
OU4-SS-06-18(1-6)	Soil	6/23/2005				X	
OU4-SS-06-19(1-6)	Soil	6/23/2005				X	
OU4-SS-06-19(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-08-06(0-1)	Soil	6/23/2005				X	
OU4-SS-08-07(0-1)	Soil	6/23/2005				X	
OU4-SS-08-08(0-1)	Soil	6/23/2005				X	
OU4-SS-08-09(0-1)	Soil	6/23/2005				X	
OU4-SS-08-10(0-1)	Soil	6/23/2005				X	

Sample ID	Matrix	Analysis Date	Analysis				
			VOC	SVOC	PCB	MET	TOC
OU4-SS-08-11(0-1)	Soil	6/23/2005				X	
OU4-SS-08-12(0-1)	Soil	6/23/2005				X	
OU4-SS-08-13(0-1)	Soil	6/23/2005				X	
OU4-SS-08-14(0-1)	Soil	6/23/2005				X	
OU4-SS-08-15(0-1)	Soil	6/23/2005				X	
OU4-SS-08-11(1-6)	Soil	6/23/2005				X	
OU4-SS-08-12(1-6)	Soil	6/23/2005				X	
OU4-SS-08-13(1-6)	Soil	6/23/2005				X	
OU4-SS-08-14(1-6)	Soil	6/23/2005				X	
OU4-SS-08-15(1-6)	Soil	6/23/2005				X	
OU4-SS-11-01(1-6)	Soil	6/23/2005				X	
OU4-SS-11-02(1-6)	Soil	6/23/2005				X	
OU4-SS-11-03(1-6)	Soil	6/23/2005				X	
OU4-SS-11-04(1-6)	Soil	6/23/2005				X	
OU4-SS-11-04(1-6)-DUP	Soil	6/23/2005				X	
OU4-SS-12-06(1-6)	Soil	6/23/2005				X	
OU4-SS-12-07(1-6)	Soil	6/23/2005				X	
OU4-SS-12-08(1-6)	Soil	6/23/2005				X	
OU4-SS-12-09(1-6)	Soil	6/23/2005				X	
OU4-SS-12-10(1-6)	Soil	6/23/2005				X	
OU4-SS-14-06(0-1)	Soil	6/23/2005				X	
OU4-SS-14-07(0-1)	Soil	6/23/2005				X	
OU4-SS-14-08(0-1)	Soil	6/23/2005				X	
OU4-SS-14-09(0-1)	Soil	6/23/2005				X	
OU4-SS-15-11(0-1)	Soil	6/24/2005				X	
OU4-SS-15-12(0-1)	Soil	6/24/2005				X	
OU4-SS-15-13(0-1)	Soil	6/24/2005				X	
OU4-SS-15-14(0-1)	Soil	6/24/2005				X	
OU4-SS-15-15(0-1)	Soil	6/24/2005				X	
OU4-SS-15-15(0-1)-DUP	Soil	6/24/2005				X	
OU4-SS-13-01(6-12)	Soil	6/24/2005				X	
OU4-SS-13-02(6-12)	Soil	6/24/2005				X	
OU4-SS-13-03(6-12)	Soil	6/24/2005				X	
OU4-SS-13-04(6-12)	Soil	6/24/2005				X	
OU4-SS-13-05(6-12)	Soil	6/24/2005				X	
OU4-SS-13-06(6-12)	Soil	6/24/2005				X	
OU4-SS-13-07(6-12)	Soil	6/24/2005				X	
OU4-SS-13-08(6-12)	Soil	6/24/2005				X	
OU4-SS-13-09(6-12)	Soil	6/24/2005				X	
OU4-SS-13-10(6-12)	Soil	6/24/2005				X	
OU4-SS-16-16(12-18)	Soil	6/24/2005				X	
OU4-SS-16-17(12-18)	Soil	6/24/2005				X	
OU4-SS-16-18(12-18)	Soil	6/24/2005				X	
OU4-SS-16-19(12-18)	Soil	6/24/2005				X	
OU4-SS-16-20(12-18)	Soil	6/24/2005				X	
OU4-SS-16-20(12-18)-DUP	Soil	6/24/2005				X	

METALS ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was subjected to adequate and sufficient quality review prior to submission.

During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit (MDL); therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days from sample receipt with the exception of mercury, which has a holding time of 28 days.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks) measure laboratory contamination. Equipment blanks measure contamination of samples during field operations.

The cadmium was detected in the associated blanks. A blank action level of five times the concentration detected in the associated blanks was calculated. Sample results exhibiting a concentration less than the blank action level were qualified as nondetect (U). No method and/or rinse blank for mercury associated with sample results of reading numbers collected form June24, 2005 were recorded.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

The analyte mercury exhibited unacceptable recovery. Associated sample results were qualified as follows:

- Sample results associated with a calibration standard exhibiting a recovery greater than 120% were qualified as estimated.

No calibration standards reading were recorded for mercury associated with reading numbers collected form June24, 2005. All associated detected mercury data were qualified as estimated.

4. Precision Measurement

Precision measurements were determined by the relative standard deviation (RSD) of seven replicates of a selected field sample analyzed in the prior SDG for XRF- metals. A control limit of 20% for all metals, with the exception of 30% for chromium, was used to determine compliance.

The precision measurement was performed on sample location OU4-SS-13-07(1-6). The results of the precision measurements conducted are provided in the associated QA/QC section of this SDG.

5. Field Duplicate

Results for duplicate samples are summarized as follows:

Sample ID / Duplicate ID	Analyte	Sample Result		Duplicate Result		RPD
OU4-SS-14-05(6-12)/OU4-SS-14-05(6-12)-DUP	Arsenic	11.74		16.06		31.1
OU4-SS-14-10(6-12)/OU4-SS-14-10(6-12)-DUP	Arsenic	24.68		25.45		3.1
OU4-SS-14-15(1-6)/OU4-SS-14-15(1-6)-DUP	Arsenic	17.45		18.63		6.5
OU4-SS-14-21(1-6)/OU4-SS-14-21(1-6)-DUP	Arsenic	18.96		19.15		1.0
OU4-SS-15-15(6-12)/OU4-SS-15-15(6-12)-DUP	Arsenic	11.8		16.48		33.1
OU4-SS-16-05(0-1)/OU4-SS-16-05(0-1)-DUP	Arsenic	17.49		13.06	U	AC
OU4-SS-16-10(1-6)/OU4-SS-16-10(1-6)-DUP	Arsenic	18.22		13.83	U	AC
OU4-SS-16-15(1-6)/OU4-SS-16-15(1-6)-DUP	Arsenic	20.15		25.06		21.7
OU4-SS-16-24(0-1)/OU4-SS-16-24(0-1)-DUP	Arsenic	13.19	U	14.5	U	AC
OU4-SS-17-05(1-6)/OU4-SS-17-05(1-6)-DUP	Arsenic	37.11		33.94		8.9
OU4-SS-17-10(0-1)/OU4-SS-17-10(0-1)-DUP	Arsenic	15.47		15.58		0.7
OU4-SS-17-10(12-18)/OU4-SS-17-10(12-18)-DUP	Arsenic	76.08		87.44		13.9
OU4-SS-04-05(1-6)/ OU4-SS-04-05(1-6)-DUP	Arsenic	19.54		14.28		31.1
OU4-SS-05-09(0-1)/ OU4-SS-05-09(0-1)-DUP	Arsenic	14.44		15.89		9.6
OU4-SS-01-15(0-1)/OU4-SS-01-15(0-1)-DUP	Arsenic	10.41		12.67		19.6
	Cadmium	34	U	33.98	U	AC
OU4-SS-06-19(1-6)/ OU4-SS-06-19(1-6)-DUP	Arsenic	11.19		12.71		12.7
	Cadmium	40.88		57.02		33
OU4-SS-11-04(1-6)/OU4-SS-11-04(1-6)-DUP	Arsenic	34.99		29.14		18.2
	Cadmium	81.77		92.33		12.1
OU4-SS-15-15(0-1)/OU4-SS-15-15(0-1)-DUP	Arsenic	20.75		19.16		8.0
	Cadmium	106.17		107.63		1.4
OU4-SS-16-20(12-18)/OU4-SS-16-20(12-18)-DUP	Arsenic	9.38		11.04		16.3
	Mercury	7.93	U	8.08	U	AC

ND not detected.
AC The field duplicate relative percent difference (RPD) is acceptable when the RPD between parent sample and field duplicate sample is less than two times the reporting limit (RL) and where the parent sample and/or duplicate concentration is less than five times RL.

The duplicate results are acceptable.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

7. General Comments

Sample results documented in the proceeding tables are reported as mg/kg wet weight.

SAMPLE ANALYSIS RUN LOG

Electronic Log for 06/23/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-STD1-062305	QC		QC
2	733	OU4-SS-EBLANK1-062305	QC		QC
3	733	OU4-SS-MBLANK1-062305	QC		QC
4	733	OU4-SS-CLPSTD1-062305	QC		QC
5	733	OU4-SS-13-07(1-6)-1	QC		QC
6	733	OU4-SS-13-07(1-6)-2	QC		QC
7	733	OU4-SS-13-07(1-6)-3	QC		QC
8	733	OU4-SS-13-07(1-6)-4	QC		QC
9	733	OU4-SS-13-07(1-6)-5	QC		QC
10	733	OU4-SS-13-07(1-6)-6	QC		QC
11	733	OU4-SS-13-07(1-6)-7	QC		QC
12	733	OU4-SS-14-01(0-1)	FS	14	W14
13	733	OU4-SS-14-02(0-1)	FS	14	W14
14	733	OU4-SS-14-03(0-1)	FS	14	W14
15	733	OU4-SS-14-04(0-1)	FS	14	W14
16	733	OU4-SS-14-05(0-1)	FS	14	W14
17	733	OU4-SS-14-01(1-6)	FS	14	W14
18	733	OU4-SS-14-02(1-6)	FS	14	W14
19	733	OU4-SS-14-03(1-6)	FS	14	W14
20	733	OU4-SS-14-04(1-6)	FS	14	W14
21	733	OU4-SS-14-05(1-6)	FS	14	W14
22	733	OU4-SS-14-01(6-12)	FS	14	W14
23	733	OU4-SS-14-02(6-12)	FS	14	W14
24	733	OU4-SS-14-03(6-12)	FS	14	W14
25	733	OU4-SS-14-04(6-12)	FS	14	W14
26	733	OU4-SS-14-05(6-12)	FS	14	W14
27	733	OU4-SS-14-05(6-12)-DUP	QC		QC
28	733	OU4-SS-EBLANK2-062305	QC		QC
29	733	OU4-SS-MBLANK2-062305	QC		QC
30	733	OU4-SS-CLPSTD2-062305	QC		QC
31	733	OU4-SS-14-06(1-6)	FS	14	W14
32	733	OU4-SS-14-07(1-6)	FS	14	W14
33	733	OU4-SS-14-08(1-6)	FS	14	W14
34	733	OU4-SS-14-09(1-6)	FS	14	W14
35	733	OU4-SS-14-10(1-6)	FS	14	W14
36	733	OU4-SS-14-06(6-12)	FS	14	W14
37	733	OU4-SS-14-07(6-12)	FS	14	W14

Electronic Log for 06/23/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
38	733	OU4-SS-14-08(6-12)	FS	14	W14
39	733	OU4-SS-14-09(6-12)	FS	14	W14
40	733	OU4-SS-14-10(6-12)	FS	14	W14
41	733	OU4-SS-14-10(6-12)-DUP	QC		QC
42	733	OU4-SS-EBLANK3-062305	QC		QC
43	733	OU4-SS-MBLANK3-062305	QC		QC
44	733	OU4-SS-CLPSTD3-062305	QC		QC
45	733	OU4-SS-14-06(12-18)	FS	14	W14
46	733	OU4-SS-14-07(12-18)	FS	14	W14
47	733	OU4-SS-14-08(12-18)	FS	14	W14
48	733	OU4-SS-14-09(12-18)	FS	14	W14
49	733	OU4-SS-14-10(12-18)	FS	14	W14
50	733	OU4-SS-14-11(0-1)	FS	14	W14
51	733	OU4-SS-14-12(0-1)	FS	14	W14
52	733	OU4-SS-14-13(0-1)	FS	14	W14
53	733	OU4-SS-14-14(0-1)	FS	14	W14
54	733	OU4-SS-14-15(0-1)	FS	14	W14
55	733	OU4-SS-14-11(1-6)	FS	14	W14
56	733	OU4-SS-14-12(1-6)	FS	14	W14
57	733	OU4-SS-14-13(1-6)	FS	14	W14
58	733	OU4-SS-14-14(1-6)	FS	14	W14
59	733	OU4-SS-14-15(1-6)	FS	14	W14
60	733	OU4-SS-14-15(1-6)-DUP	QC		QC
61	733	OU4-SS-EBLANK4-062305	QC		QC
62	733	OU4-SS-MBLANK4-062305	QC		QC
63	733	OU4-SS-CLPSTD4-062305	QC		QC
64	733	OU4-SS-14-11(6-12)	FS	14	W14
65	733	OU4-SS-14-12(6-12)	FS	14	W14
66	733	OU4-SS-14-13(6-12)	FS	14	W14
67	733	OU4-SS-14-14(6-12)	FS	14	W14
68	733	OU4-SS-14-15(6-12)	FS	14	W14
69	733	OU4-SS-14-11(12-18)	FS	14	W14
70	733	OU4-SS-14-12(12-18)	FS	14	W14
71	733	OU4-SS-14-13(12-18)	FS	14	W14
72	733	OU4-SS-14-14(12-18)	FS	14	W14
73	733	OU4-SS-14-15(12-18)	FS	14	W14
74	733	OU4-SS-14-18(0-1)	FS	14	W14

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
75	733	OU4-SS-14-19(0-1)	FS	14	W14
76	733	OU4-SS-14-20(0-1)	FS	14	W14
77	733	OU4-SS-14-21(0-1)	FS	14	W14
78	733	OU4-SS-14-18(1-6)	FS	14	W14
79	733	OU4-SS-14-19(1-6)	FS	14	W14
80	733	OU4-SS-14-20(1-6)	FS	14	W14
81	733	OU4-SS-14-21(1-6)	FS	14	W14
82	733	OU4-SS-14-21(1-6)-DUP	QC		QC
83	733	OU4-SS-EBLANK5-062305	QC		QC
84	733	OU4-SS-MBLANK5-062305	QC		QC
85	733	OU4-SS-CLPSTD5-062305	QC		QC
86	733	OU4-SS-14-18(6-12)	FS	14	W14
87	733	OU4-SS-14-19(6-12)	FS	14	W14
88	733	OU4-SS-14-20(6-12)	FS	14	W14
89	733	OU4-SS-14-21(6-12)	FS	14	W14
90	733	OU4-SS-15-01(0-1)	FS	15	S18
91	733	OU4-SS-15-02(0-1)	FS	15	S18
92	733	OU4-SS-15-03(0-1)	FS	15	S18
93	733	OU4-SS-15-04(0-1)	FS	15	S18
94	733	OU4-SS-15-05(0-1)	FS	15	S18
95	733	OU4-SS-15-01(1-6)	FS	15	S18
96	733	OU4-SS-15-02(1-6)	FS	15	S18
97	733	OU4-SS-15-03(1-6)	FS	15	S18
98	733	OU4-SS-15-04(1-6)	FS	15	S18
99	733	OU4-SS-15-05(1-6)	FS	15	S18
100	733	OU4-SS-15-01(6-12)	FS	15	S18
101	733	OU4-SS-15-02(6-12)	FS	15	S18
102	733	OU4-SS-15-03(6-12)	FS	15	S18
103	733	OU4-SS-15-04(6-12)	FS	15	S18
104	733	OU4-SS-STD2-062305	QC	15	QC
105	733	OU4-SS-15-05(6-12)	FS	15	S18
106	733	OU4-SS-EBLANK6-062305	QC		QC
107	733	OU4-SS-MBLANK6-062305	QC		QC
108	733	OU4-SS-CLPSTD6-062305	QC		QC
109	733	OU4-SS-15-05(6-12)-DUP	QC		QC
110	733	OU4-SS-15-06(0-1)	FS	15	S18
111	733	OU4-SS-15-07(0-1)	FS	15	S18

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
112	733	OU4-SS-15-08(0-1)	FS	15	S18
113	733	OU4-SS-15-09(0-1)	FS	15	S18
114	733	OU4-SS-15-10(0-1)	FS	15	S18
115	733	OU4-SS-15-06(1-6)	FS	15	S18
116	733	OU4-SS-15-07(1-6)	FS	15	S18
117	733	OU4-SS-15-08(1-6)	FS	15	S18
118	733	OU4-SS-15-09(1-6)	FS	15	S18
119	733	OU4-SS-15-10(1-6)	FS	15	S18
120	733	OU4-SS-15-11(1-6)	FS	15	S18
121	733	OU4-SS-15-12(1-6)	FS	15	S18
122	733	OU4-SS-15-13(1-6)	FS	15	S18
123	733	OU4-SS-15-14(1-6)	FS	15	S18
124	733	OU4-SS-15-15(1-6)	FS	15	S18
125	733	OU4-SS-15-11(6-12)	FS	15	S18
126	733	OU4-SS-15-12(6-12)	FS	15	S18
127	733	OU4-SS-15-13(6-12)	FS	15	S18
128	733	OU4-SS-15-14(6-12)	FS	15	S18
129	733	OU4-SS-15-15(6-12)	FS	15	S18
130	733	OU4-SS-15-15(6-12)-DUP	QC		QC
131	733	OU4-SS-EBLANK7-062305	QC		QC
132	733	OU4-SS-MBLANK7-062305	QC		QC
133	733	OU4-SS-CLPSTD7-062305	QC		QC
134	733	OU4-SS-15-11(12-18)	FS	15	S18
135	733	OU4-SS-15-12(12-18)	FS	15	S18
136	733	OU4-SS-15-13(12-18)	FS	15	S18
137	733	OU4-SS-15-14(12-18)	FS	15	S18
138	733	OU4-SS-15-15(12-18)	FS	15	S18
139	733	OU4-SS-15-16(0-1)	FS	15	S18
140	733	OU4-SS-15-17(0-1)	FS	15	S18
141	733	OU4-SS-15-18(0-1)	FS	15	S18
142	733	OU4-SS-15-19(0-1)	FS	15	S18
143	733	OU4-SS-15-16(1-6)	FS	15	S18
144	733	OU4-SS-15-17(1-6)	FS	15	S18
145	733	OU4-SS-15-18(1-6)	FS	15	S18
146	733	OU4-SS-15-19(1-6)	FS	15	S18
147	733	OU4-SS-16-01(0-1)	FS	16	S12
148	733	OU4-SS-16-02(0-1)	FS	16	S12

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
149	733	OU4-SS-16-03(0-1)	FS	16	S12
150	733	OU4-SS-16-04(0-1)	FS	16	S12
151	733	OU4-SS-16-05(0-1)	FS	16	S12
152	733	OU4-SS-16-05(0-1)-DUP	QC	16	QC
153	733	OU4-SS-EBLANK8-062305	QC		QC
154	733	OU4-SS-MBLANK8-062305	QC		QC
155	733	OU4-SS-CLPSTD8-062305	QC		QC
156	733	OU4-SS-16-01(1-6)	FS	16	S12
157	733	OU4-SS-16-02(1-6)	FS	16	S12
158	733	OU4-SS-16-03(1-6)	FS	16	S12
159	733	OU4-SS-16-04(1-6)	FS	16	S12
160	733	OU4-SS-16-05(1-6)	FS	16	S12
161	733	OU4-SS-16-01(6-12)	FS	16	S12
162	733	OU4-SS-16-02(6-12)	FS	16	S12
163	733	OU4-SS-16-03(6-12)	FS	16	S12
164	733	OU4-SS-16-04(6-12)	FS	16	S12
165	733	OU4-SS-16-05(6-12)	FS	16	S12
166	733	OU4-SS-16-06(0-1)	FS	16	S12
167	733	OU4-SS-16-07(0-1)	FS	16	S12
168	733	OU4-SS-16-08(0-1)	FS	16	S12
169	733	OU4-SS-16-09(0-1)	FS	16	S12
170	733	OU4-SS-16-10(0-1)	FS	16	S12
171	733	OU4-SS-16-06(1-6)	FS	16	S12
172	733	OU4-SS-16-07(1-6)	FS	16	S12
173	733	OU4-SS-16-08(1-6)	FS	16	S12
174	733	OU4-SS-16-09(1-6)	FS	16	S12
175	733	OU4-SS-16-10(1-6)	FS	16	S12
176	733	OU4-SS-16-10(1-6)-DUP	QC		QC
177	733	OU4-SS-EBLANK9-062305	QC		QC
178	733	OU4-SS-MBLANK9-062305	QC		QC
179	733	OU4-SS-CLPSTD9-062305	QC		QC
180	733	OU4-SS-16-06(6-12)	FS	16	S12
181	733	OU4-SS-16-07(6-12)	FS	16	S12
182	733	OU4-SS-16-08(6-12)	FS	16	S12
183	733	OU4-SS-16-09(6-12)	FS	16	S12
184	733	OU4-SS-16-10(6-12)	FS	16	S12
185	733	OU4-SS-16-06(12-18)	FS	16	S12

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
186	733	OU4-SS-16-07(12-18)	FS	16	S12
187	733	OU4-SS-16-08(12-18)	FS	16	S12
188	733	OU4-SS-16-09(12-18)	FS	16	S12
189	733	OU4-SS-16-10(12-18)	FS	16	S12
190	733	OU4-SS-16-11(0-1)	FS	16	S12
191	733	OU4-SS-16-12(0-1)	FS	16	S12
192	733	OU4-SS-16-13(0-1)	FS	16	S12
193	733	OU4-SS-16-14(0-1)	FS	16	S12
194	733	OU4-SS-16-15(0-1)	FS	16	S12
195	733	OU4-SS-16-11(1-6)	FS	16	S12
196	733	OU4-SS-16-12(1-6)	FS	16	S12
197	733	OU4-SS-16-13(1-6)	FS	16	S12
198	733	OU4-SS-16-14(1-6)	FS	16	S12
199	733	OU4-SS-16-15(1-6)	FS	16	S12
200	733	OU4-SS-16-15(1-6)-DUP	QC		QC
201	733	OU4-SS-EBLANK10-062305	QC		QC
202	733	OU4-SS-MBLANK10-062305	QC		QC
203	733	OU4-SS-CLPSTD10-062305	QC		QC
204	733	OU4-SS-16-11(6-12)	FS	16	S12
205	733	OU4-SS-16-12(6-12)	FS	16	S12
206	733	OU4-SS-16-13(6-12)	FS	16	S12
207	733	OU4-SS-16-14(6-12)	FS	16	S12
208	733	OU4-SS-16-15(6-12)	FS	16	S12
209	733	OU4-SS-STD3-062305	QC		QC
210	733	OU4-SS-16-16(0-1)	FS	16	S12
211	733	OU4-SS-16-17(0-1)	FS	16	S12
212	733	OU4-SS-16-18(0-1)	FS	16	S12
213	733	OU4-SS-16-19(0-1)	FS	16	S12
214	733	OU4-SS-16-20(0-1)	FS	16	S12
215	733	OU4-SS-16-16(1-6)	FS	16	S12
216	733	OU4-SS-16-17(1-6)	FS	16	S12
217	733	OU4-SS-16-18(1-6)	FS	16	S12
218	733	OU4-SS-16-19(1-6)	FS	16	S12
219	733	OU4-SS-16-20(1-6)	FS	16	S12
220	733	OU4-SS-16-16(6-12)	FS	16	S12
221	733	OU4-SS-16-17(6-12)	FS	16	S12
222	733	OU4-SS-16-18(6-12)	FS	16	S12

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
223	733	OU4-SS-16-19(6-12)	FS	16	S12
224	733	OU4-SS-16-20(6-12)	FS	16	S12
225	733	OU4-SS-16-21(0-1)	FS	16	S12
226	733	OU4-SS-16-22(0-1)	FS	16	S12
227	733	OU4-SS-16-23(0-1)	FS	16	S12
228	733	OU4-SS-16-24(0-1)	FS	16	S12
229	733	OU4-SS-16-24(0-1)-DUP	QC		QC
230	733	OU4-SS-EBLANK11-062305	QC		QC
231	733	OU4-SS-MBLANK11-062305	QC		QC
232	733	OU4-SS-CLPSTD11-062305	QC		QC
233	733	OU4-SS-16-21(1-6)	FS	16	S12
234	733	OU4-SS-16-22(1-6)	FS	16	S12
235	733	OU4-SS-16-23(1-6)	FS	16	S12
236	733	OU4-SS-16-24(1-6)	FS	16	S12
237	733	OU4-SS-17-01(0-1)	FS	17	W06
238	733	OU4-SS-17-02(0-1)	FS	17	W06
239	733	OU4-SS-17-03(0-1)	FS	17	W06
240	733	OU4-SS-17-04(0-1)	FS	17	W06
241	733	OU4-SS-17-05(0-1)	FS	17	W06
242	733	OU4-SS-17-01(1-6)	FS	17	W06
243	733	OU4-SS-17-02(1-6)	FS	17	W06
244	733	OU4-SS-17-03(1-6)	FS	17	W06
245	733	OU4-SS-17-04(1-6)	FS	17	W06
246	733	OU4-SS-17-05(1-6)	FS	17	W06
247	733	OU4-SS-17-05(1-6)-DUP	QC		QC
248	733	OU4-SS-EBLANK12-062305	QC		QC
249	733	OU4-SS-MBLANK12-062305	QC		QC
250	733	OU4-SS-CLPSTD12-062305	QC		QC
251	733	OU4-SS-17-01(6-12)	FS	17	W06
252	733	OU4-SS-17-02(6-12)	FS	17	W06
253	733	OU4-SS-17-03(6-12)	FS	17	W06
254	733	OU4-SS-17-04(6-12)	FS	17	W06
255	733	OU4-SS-17-05(6-12)	FS	17	W06
256	733	OU4-SS-17-01(12-18)	FS	17	W06
257	733	OU4-SS-17-02(12-18)	FS	17	W06
258	733	OU4-SS-17-03(12-18)	FS	17	W06
259	733	OU4-SS-17-04(12-18)	FS	17	W06

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
260	733	OU4-SS-17-05(12-18)	FS	17	W06
261	733	OU4-SS-17-06(0-1)	FS	17	W06
262	733	OU4-SS-17-07(0-1)	FS	17	W06
263	733	OU4-SS-17-08(0-1)	FS	17	W06
264	733	OU4-SS-17-09(0-1)	FS	17	W06
265	733	OU4-SS-17-10(0-1)	FS	17	W06
266	733	OU4-SS-17-10(0-1)-DUP	QC		QC
267	733	OU4-SS-EBLANK13-062305	QC		QC
268	733	OU4-SS-MBLANK13-062305	QC		QC
269	733	OU4-SS-CLPSTD13-062305	QC		QC
270	733	OU4-SS-17-06(1-6)	FS	17	W06
271	733	OU4-SS-17-07(1-6)	FS	17	W06
272	733	OU4-SS-17-08(1-6)	FS	17	W06
273	733	OU4-SS-17-09(1-6)	FS	17	W06
274	733	OU4-SS-17-10(1-6)	FS	17	W06
275	733	OU4-SS-17-06(6-12)	FS	17	W06
276	733	OU4-SS-17-07(6-12)	FS	17	W06
277	733	OU4-SS-17-08(6-12)	FS	17	W06
278	733	OU4-SS-17-09(6-12)	FS	17	W06
279	733	OU4-SS-17-10(6-12)	FS	17	W06
280	733	OU4-SS-17-06(12-18)	FS	17	W06
281	733	OU4-SS-17-07(12-18)	FS	17	W06
282	733	OU4-SS-17-08(12-18)	FS	17	W06
283	733	OU4-SS-17-09(12-18)	FS	17	W06
284	733	OU4-SS-17-10(12-18)	FS	17	W06
285	733	OU4-SS-17-10(12-18)-DUP	QC		QC
286	733	OU4-SS-EBLANK14-062305	QC		QC
287	733	OU4-SS-MBLANK14-062305	QC		QC
288	733	OU4-SS-CLPSTD14-062305	QC		QC
289	733	OU4-SS-02-05(6-12)	FS	02	S11
290	733	OU4-SS-02-06(6-12)	FS	02	S11
291	733	OU4-SS-02-07(6-12)	FS	02	S11
292	733	OU4-SS-02-08(6-12)	FS	02	S11
293	733	OU4-SS-02-09(6-12)	FS	02	S11
294	733	OU4-SS-04-01(0-1)	FS	04	E06
295	733	OU4-SS-04-02(0-1)	FS	04	E06
296	733	OU4-SS-04-03(0-1)	FS	04	E06

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
297	733	OU4-SS-04-04(0-1)	FS	04	E06
298	733	OU4-SS-04-05(0-1)	FS	04	E06
299	733	OU4-SS-04-01(1-6)	FS	04	E06
300	733	OU4-SS-04-02(1-6)	FS	04	E06
301	733	OU4-SS-04-03(1-6)	FS	04	E06
302	733	OU4-SS-04-04(1-6)	FS	04	E06
303	733	OU4-SS-04-05(1-6)	FS	04	E06
304	733	OU4-SS-04-05(1-6)-DUP	QC		QC
305	733	OU4-SS-EBLANK15-062305	QC		QC
306	733	OU4-SS-MBLANK15-062305	QC		QC
307	733	OU4-SS-CLPSTD15-062305	QC		QC
308	733	OU4-SS-STD4-062305	QC		QC
309	733	OU4-SS-04-06(1-6)	FS	04	E06
310	733	OU4-SS-04-07(1-6)	FS	04	E06
311	733	OU4-SS-04-08(1-6)	FS	04	E06
312	733	OU4-SS-04-09(1-6)	FS	04	E06
313	733	OU4-SS-04-10(1-6)	FS	04	E06
314	733	OU4-SS-04-11(0-1)	FS	04	E06
315	733	OU4-SS-04-12(0-1)	FS	04	E06
316	733	OU4-SS-04-13(0-1)	FS	04	E06
317	733	OU4-SS-04-14(0-1)	FS	04	E06
318	733	OU4-SS-04-15(0-1)	FS	04	E06
319	733	OU4-SS-04-16(1-6)	FS	04	E06
320	733	OU4-SS-04-17(1-6)	FS	04	E06
321	733	OU4-SS-04-18(1-6)	FS	04	E06
322	733	OU4-SS-04-19(1-6)	FS	04	E06
323	733	OU4-SS-04-20(1-6)	FS	04	E06
324	733	OU4-SS-05-06(0-1)	FS	05	W05
325	733	OU4-SS-05-07(0-1)	FS	05	W05
326	733	OU4-SS-05-08(0-1)	FS	05	W05
327	733	OU4-SS-05-09(0-1)	FS	05	W05
328	733	OU4-SS-05-09(0-1)-DUP	QC		QC
329	733	OU4-SS-EBLANK16-062305	QC		QC
330	733	OU4-SS-MBLANK16-062305	QC		QC
331	733	OU4-SS-CLPSTD16-062305	QC		QC
332	733	OU4-SS-02-01(6-12)	FS	02	S11
333	733	OU4-SS-02-02(6-12)	FS	02	S11

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Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
334	733	OU4-SS-02-03(6-12)	FS	02	S11
335	733	OU4-SS-02-04(6-12)	FS	02	S11
336	733	OU4-SS-01-11(0-1)	FS	01	W11
337	733	OU4-SS-01-12(0-1)	FS	01	W11
338	733	OU4-SS-01-13(0-1)	FS	01	W11
339	733	OU4-SS-01-14(0-1)	FS	01	W11
340	733	OU4-SS-01-15(0-1)	FS	01	W11
341	733	OU4-SS-01-15(0-1)-DUP	QC		QC
342	733	OU4-SS-EBLANK17-062305	QC		QC
343	733	OU4-SS-MBLANK17-062305	QC		QC
344	733	OU4-SS-CLPSTD17-062305	QC		QC
345	733	OU4-SS-03-01(0-1)	FS	03	S16
346	733	OU4-SS-03-02(0-1)	FS	03	S16
347	733	OU4-SS-03-03(0-1)	FS	03	S16
348	733	OU4-SS-03-04(0-1)	FS	03	S16
349	733	OU4-SS-03-05(0-1)	FS	03	S16
350	733	OU4-SS-03-01(1-6)	FS	03	S16
351	733	OU4-SS-03-02(1-6)	FS	03	S16
352	733	OU4-SS-03-03(1-6)	FS	03	S16
353	733	OU4-SS-03-04(1-6)	FS	03	S16
354	733	OU4-SS-03-05(1-6)	FS	03	S16
355	733	OU4-SS-06-15(1-6)	FS	06	D19
356	733	OU4-SS-06-16(1-6)	FS	06	D19
357	733	OU4-SS-06-17(1-6)	FS	06	D19
358	733	OU4-SS-06-18(1-6)	FS	06	D19
359	733	OU4-SS-06-19(1-6)	FS	06	D19
360	733	OU4-SS-06-19(1-6)-DUP	QC		QC
361	733	OU4-SS-EBLANK18-062305	QC		QC
362	733	OU4-SS-MBLANK18-062305	QC		QC
363	733	OU4-SS-CLPSTD18-062305	QC		QC
364	733	OU4-SS-08-06(0-1)	FS	08	D11
365	733	OU4-SS-08-07(0-1)	FS	08	D11
366	733	OU4-SS-08-08(0-1)	FS	08	D11
367	733	OU4-SS-08-09(0-1)	FS	08	D11
368	733	OU4-SS-08-10(0-1)	FS	08	D11
369	733	OU4-SS-08-11(0-1)	FS	08	D11
370	733	OU4-SS-08-12(0-1)	FS	08	D11

No MBor Cal for cal.

Electronic Log for 06/23/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
371	733	OU4-SS-08-13(0-1)	FS	08	D11
372	733	OU4-SS-08-14(0-1)	FS	08	D11
373	733	OU4-SS-08-15(0-1)	FS	08	D11
374	733	OU4-SS-08-11(1-6)	FS	08	D11
375	733	OU4-SS-08-12(1-6)	FS	08	D11
376	733	OU4-SS-08-13(1-6)	FS	08	D11
377	733	OU4-SS-08-14(1-6)	FS	08	D11
378	733	OU4-SS-08-15(1-6)	FS	08	D11
379	733	OU4-SS-11-01(1-6)	FS	11	D16
380	733	OU4-SS-11-02(1-6)	FS	11	D16
381	733	OU4-SS-11-03(1-6)	FS	11	D16
382	733	OU4-SS-11-04(1-6)	FS	11	D16
383	733	OU4-SS-11-04(1-6)-DUP	QC		QC
384	733	OU4-SS-EBLANK19-062305	QC		QC
385	733	OU4-SS-MBLANK19-062305	QC		QC
386	733	OU4-SS-CLPSTD19-062305	QC		QC
387	733	OU4-SS-12-06(1-6)	FS	12	S19
388	733	OU4-SS-12-07(1-6)	FS	12	S19
389	733	OU4-SS-12-08(1-6)	FS	12	S19
390	733	OU4-SS-12-09(1-6)	FS	12	S19
391	733	OU4-SS-12-10(1-6)	FS	12	S19
392	733	OU4-SS-14-06(0-1)	FS	14	W14
393	733	OU4-SS-14-07(0-1)	FS	14	W14
394	733	OU4-SS-14-08(0-1)	FS	14	W14
395	733	OU4-SS-14-09(0-1)	FS	14	W14

Electronic Log for 06/24/2005

Reading Number	Instrument Number	Sample Name	Sample Type	Property	Location ID
1	733	OU4-SS-14-10(0-1)	FS	14	W14
2	733	OU4-SS-STD1-062405	QC		QC
3	733	OU4-SS-15-11(0-1)	FS	15	S18
4	733	OU4-SS-15-12(0-1)	FS	15	S18
5	733	OU4-SS-15-13(0-1)	FS	15	S18
6	733	OU4-SS-15-14(0-1)	FS	15	S18
7	733	OU4-SS-15-15(0-1)	FS	15	S18
8	733	OU4-SS-15-15(0-1)-DUP	QC	15	QC
9	733	OU4-SS-EBLANK1-062405	QC		QC
10	733	OU4-SS-MBLANK1-062405	QC		QC
11	733	OU4-SS-STD2-062405	QC		QC
12	733	OU4-SS-CLPSTD1-062405	QC		QC
13	733	OU4-SS-13-01(6-12)	FS	13	S02
14	733	OU4-SS-13-02(6-12)	FS	13	S02
15	733	OU4-SS-13-03(6-12)	FS	13	S02
16	733	OU4-SS-13-04(6-12)	FS	13	S02
17	733	OU4-SS-13-05(6-12)	FS	13	S02
18	733	OU4-SS-13-06(6-12)	FS	13	S02
19	733	OU4-SS-13-07(6-12)	FS	13	S02
20	733	OU4-SS-13-08(6-12)	FS	13	S02
21	733	OU4-SS-13-09(6-12)	FS	13	S02
22	733	OU4-SS-13-10(6-12)	FS	13	S02
23	733	OU4-SS-16-16(12-18)	FS	16	S12
24	733	OU4-SS-16-17(12-18)	FS	16	S12
25	733	OU4-SS-16-18(12-18)	FS	16	S12
26	733	OU4-SS-16-19(12-18)	FS	16	S12
27	733	OU4-SS-16-20(12-18)	FS	16	S12
28	733	OU4-SS-16-20(12-18)-DUP	QC		QC
29	733	OU4-SS-EBLANK2-062405	QC		QC
30	733	OU4-SS-STD3-062405	QC		QC
31	733	OU4-SS-MBLANK2-062405	QC		QC
32	733	OU4-SS-CLPSTD2-062405	QC		QC
33	733	OU4-SS-STD4-062405	QC		QC

No MB for Hg or Cal?

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-01-11(0-1) 0 - 1 06/23/05	OU4-SS-01-12(0-1) 0 - 1 06/23/05	OU4-SS-01-13(0-1) 0 - 1 06/23/05	OU4-SS-01-14(0-1) 0 - 1 06/23/05	OU4-SS-01-15(0-1) 0 - 1 06/23/05	OU4-SS-02-01(6-12) 6 - 12 06/23/05	OU4-SS-02-02(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 6200)								
Arsenic	mg/kg	21.56 J	20.4 J	12.35 U	10.91 J	10.41 J	NA	NA
Cadmium	mg/kg	60.44 U	66.66 U	40.96 U	68.98 U	34 U	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	23260.89	91382.88

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-03(6-12) 6 - 12 06/23/05	OU4-SS-02-04(6-12) 6 - 12 06/23/05	OU4-SS-02-05(6-12) 6 - 12 06/23/05	OU4-SS-02-06(6-12) 6 - 12 06/23/05	OU4-SS-02-07(6-12) 6 - 12 06/23/05	OU4-SS-02-08(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	NA	NA	6.18 J	13.97 J	21.37 J	10.25 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	23131.55	20380.82	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-02-09(6-12) 6 - 12 06/23/05	OU4-SS-03-01(0-1) 0 - 1 06/23/05	OU4-SS-03-01(1-6) 1 - 6 06/23/05	OU4-SS-03-02(0-1) 0 - 1 06/23/05	OU4-SS-03-02(1-6) 1 - 6 06/23/05	OU4-SS-03-03(0-1) 0 - 1 06/23/05	OU4-SS-03-03(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	8.15 J	13.74 U	25.85 J	17.22 U	17.72 J	21.64 J	13.4 J
Cadmium	mg/kg	NA	67.44 U	80.14 U	116.25 U	35.74 U	108.53 U	56.4 U
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-03-04(0-1) 0 - 1 06/23/05	OU4-SS-03-04(1-6) 1 - 6 06/23/05	OU4-SS-03-05(0-1) 0 - 1 06/23/05	OU4-SS-03-05(1-6) 1 - 6 06/23/05	OU4-SS-04-01(0-1) 0 - 1 06/23/05	OU4-SS-04-01(1-6) 1 - 6 06/23/05	OU4-SS-04-02(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	20.25 J	24.11 J	40.07 J	17.76 J	26.41 J	13.72 U	16.07 J
Cadmium	mg/kg	74.56 U	114.15 U	228	52.02 U	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-02(1-6) 1 - 6 06/23/05	OU4-SS-04-03(0-1) 0 - 1 06/23/05	OU4-SS-04-03(1-6) 1 - 6 06/23/05	OU4-SS-04-04(0-1) 0 - 1 06/23/05	OU4-SS-04-04(1-6) 1 - 6 06/23/05	OU4-SS-04-05(0-1) 0 - 1 06/23/05	OU4-SS-04-05(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	11.52 U	11 U	11.31 U	17.98 J	32.26 J	15.2 J	19.54 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-06(1-6) 1 - 6 06/23/05	OU4-SS-04-07(1-6) 1 - 6 06/23/05	OU4-SS-04-08(1-6) 1 - 6 06/23/05	OU4-SS-04-09(1-6) 1 - 6 06/23/05	OU4-SS-04-10(1-6) 1 - 6 06/23/05	OU4-SS-04-11(0-1) 0 - 1 06/23/05	OU4-SS-04-12(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	5.11 J	16.35 J	15.43 J	10.19 U	11.51 U	26.21 J	9.14 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-13(0-1) 0 - 1 06/23/05	OU4-SS-04-14(0-1) 0 - 1 06/23/05	OU4-SS-04-15(0-1) 0 - 1 06/23/05	OU4-SS-04-16(1-6) 1 - 6 06/23/05	OU4-SS-04-17(1-6) 1 - 6 06/23/05	OU4-SS-04-18(1-6) 1 - 6 06/23/05	OU4-SS-04-19(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	22.99 J	13.27 J	12.06 U	19.06 J	17.94 J	10.14 U	8.06 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-04-20(1-6) 1 - 6 06/23/05	OU4-SS-05-06(0-1) 0 - 1 06/23/05	OU4-SS-05-07(0-1) 0 - 1 06/23/05	OU4-SS-05-08(0-1) 0 - 1 06/23/05	OU4-SS-05-09(0-1) 0 - 1 06/23/05	OU4-SS-06-15(1-6) 1 - 6 06/23/05	OU4-SS-06-16(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	10.96 U	13.59 J	25.2 J	11.13 U	14.44 J	27.12 J	23.01 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	107.42 J	99.2 J
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-06-17(1-6) 1 - 6 06/23/05	OU4-SS-06-18(1-6) 1 - 6 06/23/05	OU4-SS-06-19(1-6) 1 - 6 06/23/05	OU4-SS-08-06(0-1) 0 - 1 06/23/05	OU4-SS-08-07(0-1) 0 - 1 06/23/05	OU4-SS-08-08(0-1) 0 - 1 06/23/05	OU4-SS-08-09(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	29.34 J	32.38 J	11.19 J	10.33 J	13.29 U	12.32 J	10.86 U
Cadmium	mg/kg	85.4 U	85.76 U	40.88 U	34.43 U	98.78 U	97.08 U	49.41 U
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-10(0-1) 0 - 1 06/23/05	OU4-SS-08-11(0-1) 0 - 1 06/23/05	OU4-SS-08-11(1-6) 1 - 6 06/23/05	OU4-SS-08-12(0-1) 0 - 1 06/23/05	OU4-SS-08-12(1-6) 1 - 6 06/23/05	OU4-SS-08-13(0-1) 0 - 1 06/23/05	OU4-SS-08-13(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	15.78 U	24.41 J	26.92 J	20.15 J	56.61 J	23.15 J	18.62 U
Cadmium	mg/kg	172.34	149.21	95.02	173.06	235.31	125.26	107.07
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-08-14(0-1) 0 - 1 06/23/05	OU4-SS-08-14(1-6) 1 - 6 06/23/05	OU4-SS-08-15(0-1) 0 - 1 06/23/05	OU4-SS-08-15(1-6) 1 - 6 06/23/05	OU4-SS-11-01(1-6) 1 - 6 06/23/05	OU4-SS-11-02(1-6) 1 - 6 06/23/05	OU4-SS-11-03(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	23.76 J	23.58 J	21.33 J	34.37 J	12.64 J	14.4 U	32.68 J
Cadmium	mg/kg	202.22	88.45	169.02	112.73	89.2	113.31	136
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-11-04(1-6) 1 - 6 06/23/05	OU4-SS-12-06(1-6) 1 - 6 06/23/05	OU4-SS-12-07(1-6) 1 - 6 06/23/05	OU4-SS-12-08(1-6) 1 - 6 06/23/05	OU4-SS-12-09(1-6) 1 - 6 06/23/05	OU4-SS-12-10(1-6) 1 - 6 06/23/05	OU4-SS-14-01(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	34.99 J	29.64 J	25.84 J	16.94 J	24.52 J	25.78 J	11.9 J
Cadmium	mg/kg	81.77	73.7	88.31	61.34	46.69	61.27	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-01(1-6) 1 - 6 06/23/05	OU4-SS-14-01(6-12) 6 - 12 06/23/05	OU4-SS-14-02(0-1) 0 - 1 06/23/05	OU4-SS-14-02(1-6) 1 - 6 06/23/05	OU4-SS-14-02(6-12) 6 - 12 06/23/05	OU4-SS-14-03(0-1) 0 - 1 06/23/05	OU4-SS-14-03(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	20.26 J	17.92 J	15.81 J	9.25 J	9.36 U	17.82 J	22.76 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-03(6-12) 6 - 12 06/23/05	OU4-SS-14-04(0-1) 0 - 1 06/23/05	OU4-SS-14-04(1-6) 1 - 6 06/23/05	OU4-SS-14-04(6-12) 6 - 12 06/23/05	OU4-SS-14-05(0-1) 0 - 1 06/23/05	OU4-SS-14-05(1-6) 1 - 6 06/23/05	OU4-SS-14-05(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	12.21 J	14.18 J	15.89 J	15.93 J	14.28 J	27.72 J	11.74 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-06(0-1) 0 - 1 06/23/05	OU4-SS-14-06(1-6) 1 - 6 06/23/05	OU4-SS-14-06(6-12) 6 - 12 06/23/05	OU4-SS-14-06(12-18) 12 - 18 06/23/05	OU4-SS-14-07(0-1) 0 - 1 06/23/05	OU4-SS-14-07(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.56 U	24.35 J	12.71 J	8.19 J	18.11 J	12.28 J
Cadmium	mg/kg	64.84	NA	NA	NA	65.33	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-07(6-12) 6 - 12 06/23/05	OU4-SS-14-07(12-18) 12 - 18 06/23/05	OU4-SS-14-08(0-1) 0 - 1 06/23/05	OU4-SS-14-08(1-6) 1 - 6 06/23/05	OU4-SS-14-08(6-12) 6 - 12 06/23/05	OU4-SS-14-08(12-18) 12 - 18 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	11.25 J	7.14 J	9.01 U	9.46 U	12.55 J	13.09 J
Cadmium	mg/kg	NA	NA	41.06	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-09(0-1) 0 - 1 06/23/05	OU4-SS-14-09(1-6) 1 - 6 06/23/05	OU4-SS-14-09(6-12) 6 - 12 06/23/05	OU4-SS-14-09(12-18) 12 - 18 06/23/05	OU4-SS-14-10(1-6) 1 - 6 06/23/05	OU4-SS-14-10(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	8.72 U	9.36 U	11.84 J	6.47 U	22.03 J	24.68 J
Cadmium	mg/kg	36.9	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-10(12-18) 12 - 18 06/23/05	OU4-SS-14-11(0-1) 0 - 1 06/23/05	OU4-SS-14-11(1-6) 1 - 6 06/23/05	OU4-SS-14-11(6-12) 6 - 12 06/23/05	OU4-SS-14-11(12-18) 12 - 18 06/23/05	OU4-SS-14-12(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	16.56 J	12.15 J	28.57 J	4.86 U	20.59 J	33.41 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-12(1-6) 1 - 6 06/23/05	OU4-SS-14-12(6-12) 6 - 12 06/23/05	OU4-SS-14-12(12-18) 12 - 18 06/23/05	OU4-SS-14-13(0-1) 0 - 1 06/23/05	OU4-SS-14-13(1-6) 1 - 6 06/23/05	OU4-SS-14-13(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	43.1 J	18.75 J	10.58 J	19.8 J	29.37 J	24.02 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-13(12-18) 12 - 18 06/23/05	OU4-SS-14-14(0-1) 0 - 1 06/23/05	OU4-SS-14-14(1-6) 1 - 6 06/23/05	OU4-SS-14-14(6-12) 6 - 12 06/23/05	OU4-SS-14-14(12-18) 12 - 18 06/23/05	OU4-SS-14-15(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	9.33 J	12.6 U	38.89 J	28.59 J	6.18 U	14.72 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-15(1-6) 1 - 6 06/23/05	OU4-SS-14-15(6-12) 6 - 12 06/23/05	OU4-SS-14-15(12-18) 12 - 18 06/23/05	OU4-SS-14-18(0-1) 0 - 1 06/23/05	OU4-SS-14-18(1-6) 1 - 6 06/23/05	OU4-SS-14-18(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	17.45 J	11.94 J	9.16 U	23.93 U	62.87 J	18.69 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-19(0-1) 0 - 1 06/23/05	OU4-SS-14-19(1-6) 1 - 6 06/23/05	OU4-SS-14-19(6-12) 6 - 12 06/23/05	OU4-SS-14-20(0-1) 0 - 1 06/23/05	OU4-SS-14-20(1-6) 1 - 6 06/23/05	OU4-SS-14-20(6-12) 6 - 12 06/23/05	OU4-SS-14-21(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	44.26 J	23.26 U	11.04 U	55.07 J	26.73 J	14.6 J	14.4 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-21(1-6) 1 - 6 06/23/05	OU4-SS-14-21(6-12) 6 - 12 06/23/05	OU4-SS-15-01(0-1) 0 - 1 06/23/05	OU4-SS-15-01(1-6) 1 - 6 06/23/05	OU4-SS-15-01(6-12) 6 - 12 06/23/05	OU4-SS-15-02(0-1) 0 - 1 06/23/05	OU4-SS-15-02(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	18.96 J	6 U	16.21 J	18.58 J	8.12 J	11.96 J	20.37 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-02(6-12) 6 - 12 06/23/05	OU4-SS-15-03(0-1) 0 - 1 06/23/05	OU4-SS-15-03(1-6) 1 - 6 06/23/05	OU4-SS-15-03(6-12) 6 - 12 06/23/05	OU4-SS-15-04(0-1) 0 - 1 06/23/05	OU4-SS-15-04(1-6) 1 - 6 06/23/05	OU4-SS-15-04(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	9.47 J	14.49 J	14.8 J	5.69 J	22.74 J	11.44 J	15.88 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-05(0-1) 0 - 1 06/23/05	OU4-SS-15-05(1-6) 1 - 6 06/23/05	OU4-SS-15-05(6-12) 6 - 12 06/23/05	OU4-SS-15-06(0-1) 0 - 1 06/23/05	OU4-SS-15-06(1-6) 1 - 6 06/23/05	OU4-SS-15-07(0-1) 0 - 1 06/23/05	OU4-SS-15-07(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	8.88 U	10.51 U	14.92 J	16.75 U	13.6 J	14.18 J	8.03 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-08(0-1) 0 - 1 06/23/05	OU4-SS-15-08(1-6) 1 - 6 06/23/05	OU4-SS-15-09(0-1) 0 - 1 06/23/05	OU4-SS-15-09(1-6) 1 - 6 06/23/05	OU4-SS-15-10(0-1) 0 - 1 06/23/05	OU4-SS-15-10(1-6) 1 - 6 06/23/05	OU4-SS-15-11(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	58.53 J	15.69 J	12.06 U	15.41 J	14.38 J	11.94 J	12.63 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-11(6-12) 6 - 12 06/23/05	OU4-SS-15-11(12-18) 12 - 18 06/23/05	OU4-SS-15-12(1-6) 1 - 6 06/23/05	OU4-SS-15-12(6-12) 6 - 12 06/23/05	OU4-SS-15-12(12-18) 12 - 18 06/23/05	OU4-SS-15-13(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	7.93 J	7.7 J	15.07 J	10.35 J	10.66 J	12.5 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-13(6-12) 6 - 12 06/23/05	OU4-SS-15-13(12-18) 12 - 18 06/23/05	OU4-SS-15-14(1-6) 1 - 6 06/23/05	OU4-SS-15-14(6-12) 6 - 12 06/23/05	OU4-SS-15-14(12-18) 12 - 18 06/23/05	OU4-SS-15-15(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	5.66 U	9.75 J	5.3 U	5.2 J	8.32 J	31.93 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-15(6-12) 6 - 12 06/23/05	OU4-SS-15-15(12-18) 12 - 18 06/23/05	OU4-SS-15-16(0-1) 0 - 1 06/23/05	OU4-SS-15-16(1-6) 1 - 6 06/23/05	OU4-SS-15-17(0-1) 0 - 1 06/23/05	OU4-SS-15-17(1-6) 1 - 6 06/23/05	OU4-SS-15-18(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	11.8 J	5.71 J	22.31 J	17.2 U	36.87 J	73.3 J	13 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-18(1-6) 1 - 6 06/23/05	OU4-SS-15-19(0-1) 0 - 1 06/23/05	OU4-SS-15-19(1-6) 1 - 6 06/23/05	OU4-SS-16-01(0-1) 0 - 1 06/23/05	OU4-SS-16-01(1-6) 1 - 6 06/23/05	OU4-SS-16-01(6-12) 6 - 12 06/23/05	OU4-SS-16-02(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	13.89 J	13.07 U	8.37 J	14.37 U	24.28 J	20.53 U	14.59 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-02(1-6) 1 - 6 06/23/05	OU4-SS-16-02(6-12) 6 - 12 06/23/05	OU4-SS-16-03(0-1) 0 - 1 06/23/05	OU4-SS-16-03(1-6) 1 - 6 06/23/05	OU4-SS-16-03(6-12) 6 - 12 06/23/05	OU4-SS-16-04(0-1) 0 - 1 06/23/05	OU4-SS-16-04(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	20.53 J	15.76 J	11.03 J	20.41 J	6.65 J	34.97 J	25.86 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-04(6-12) 6 - 12 06/23/05	OU4-SS-16-05(0-1) 0 - 1 06/23/05	OU4-SS-16-05(1-6) 1 - 6 06/23/05	OU4-SS-16-05(6-12) 6 - 12 06/23/05	OU4-SS-16-06(0-1) 0 - 1 06/23/05	OU4-SS-16-06(1-6) 1 - 6 06/23/05	OU4-SS-16-06(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	29.71 J	17.49 J	40.69 J	10.68 J	8.54 J	14.74 J	9.22 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-06(12-18) 12 - 18 06/23/05	OU4-SS-16-07(0-1) 0 - 1 06/23/05	OU4-SS-16-07(1-6) 1 - 6 06/23/05	OU4-SS-16-07(6-12) 6 - 12 06/23/05	OU4-SS-16-07(12-18) 12 - 18 06/23/05	OU4-SS-16-08(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	13.12 J	13.51 J	22 J	6.95 J	7.9 U	9.45 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-08(1-6) 1 - 6 06/23/05	OU4-SS-16-08(6-12) 6 - 12 06/23/05	OU4-SS-16-08(12-18) 12 - 18 06/23/05
Metals - XRF (USEPA SW-846 62(				
Arsenic	mg/kg	12.83 U	12.95 J	24.25 J
Cadmium	mg/kg	NA	NA	NA
Iron	mg/kg	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-09(0-1) 0 - 1 06/23/05	OU4-SS-16-09(1-6) 1 - 6 06/23/05	OU4-SS-16-09(6-12) 6 - 12 06/23/05	OU4-SS-16-09(12-18) 12 - 18 06/23/05	OU4-SS-16-10(0-1) 0 - 1 06/23/05	OU4-SS-16-10(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 6200)							
Arsenic	mg/kg	10.31 U	11.93 U	6.39 J	8.09 J	11.91 U	18.22 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-10(6-12) 6 - 12 06/23/05	OU4-SS-16-10(12-18) 12 - 18 06/23/05	OU4-SS-16-11(0-1) 0 - 1 06/23/05	OU4-SS-16-11(1-6) 1 - 6 06/23/05	OU4-SS-16-11(6-12) 6 - 12 06/23/05	OU4-SS-16-12(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	7.03 U	5.72 J	15.67 U	23.15 J	14.42 J	14.24 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-12(1-6) 1 - 6 06/23/05	OU4-SS-16-12(6-12) 6 - 12 06/23/05	OU4-SS-16-13(0-1) 0 - 1 06/23/05	OU4-SS-16-13(1-6) 1 - 6 06/23/05	OU4-SS-16-13(6-12) 6 - 12 06/23/05	OU4-SS-16-14(0-1) 0 - 1 06/23/05	OU4-SS-16-14(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	18.54 J	10.04 U	10.8 U	12.17 U	8.54 J	19.19 J	12.71 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-14(6-12) 6 - 12 06/23/05	OU4-SS-16-15(0-1) 0 - 1 06/23/05	OU4-SS-16-15(1-6) 1 - 6 06/23/05	OU4-SS-16-15(6-12) 6 - 12 06/23/05	OU4-SS-16-16(0-1) 0 - 1 06/23/05	OU4-SS-16-16(1-6) 1 - 6 06/23/05	OU4-SS-16-16(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	6.38 U	18.76 J	20.15 J	50.39 J	16.72 J	22.37 J	48.06 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-17(0-1) 0 - 1 06/23/05	OU4-SS-16-17(1-6) 1 - 6 06/23/05	OU4-SS-16-17(6-12) 6 - 12 06/23/05	OU4-SS-16-18(0-1) 0 - 1 06/23/05	OU4-SS-16-18(1-6) 1 - 6 06/23/05	OU4-SS-16-18(6-12) 6 - 12 06/23/05	OU4-SS-16-19(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	19.06 J	70.65 J	23.69 J	13.62 J	24.83 J	30.68 J	15.88 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-19(1-6) 1 - 6 06/23/05	OU4-SS-16-19(6-12) 6 - 12 06/23/05	OU4-SS-16-20(0-1) 0 - 1 06/23/05	OU4-SS-16-20(1-6) 1 - 6 06/23/05	OU4-SS-16-20(6-12) 6 - 12 06/23/05	OU4-SS-16-21(0-1) 0 - 1 06/23/05	OU4-SS-16-21(1-6) 1 - 6 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	24.31 J	17.96 J	10.82 U	15.24 J	14.17 J	120.34 J	25.67 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-22(0-1) 0 - 1 06/23/05	OU4-SS-16-22(1-6) 1 - 6 06/23/05	OU4-SS-16-23(0-1) 0 - 1 06/23/05	OU4-SS-16-23(1-6) 1 - 6 06/23/05	OU4-SS-16-24(0-1) 0 - 1 06/23/05	OU4-SS-16-24(1-6) 1 - 6 06/23/05	OU4-SS-17-01(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(								
Arsenic	mg/kg	34.68 J	29.61 J	11.22 U	9.47 J	13.19 U	17.86 U	16.71 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-01(1-6) 1 - 6 06/23/05	OU4-SS-17-01(6-12) 6 - 12 06/23/05	OU4-SS-17-01(12-18) 12 - 18 06/23/05	OU4-SS-17-02(0-1) 0 - 1 06/23/05	OU4-SS-17-02(1-6) 1 - 6 06/23/05	OU4-SS-17-02(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	31.42	11.05	5.54 U	8.07 U	6.2 U	5.5 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-02(12-18) 12 - 18 06/23/05	OU4-SS-17-03(0-1) 0 - 1 06/23/05	OU4-SS-17-03(1-6) 1 - 6 06/23/05	OU4-SS-17-03(6-12) 6 - 12 06/23/05	OU4-SS-17-03(12-18) 12 - 18 06/23/05	OU4-SS-17-04(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	4.49 U	10.66 J	9 U	9.36 U	37.64 J	10.77 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-04(1-6) 1 - 6 06/23/05	OU4-SS-17-04(6-12) 6 - 12 06/23/05	OU4-SS-17-04(12-18) 12 - 18 06/23/05	OU4-SS-17-05(0-1) 0 - 1 06/23/05	OU4-SS-17-05(1-6) 1 - 6 06/23/05	OU4-SS-17-05(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	8.98 J	9.36 U	16.06 U	14.65 U	37.11 J	11.89 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-05(12-18) 12 - 18 06/23/05	OU4-SS-17-06(0-1) 0 - 1 06/23/05	OU4-SS-17-06(1-6) 1 - 6 06/23/05	OU4-SS-17-06(6-12) 6 - 12 06/23/05	OU4-SS-17-06(12-18) 12 - 18 06/23/05	OU4-SS-17-07(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	8.61 U	9 U	14.43 U	25.14 J	18.27 U	9.99 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-07(1-6) 1 - 6 06/23/05	OU4-SS-17-07(6-12) 6 - 12 06/23/05	OU4-SS-17-07(12-18) 12 - 18 06/23/05	OU4-SS-17-08(0-1) 0 - 1 06/23/05	OU4-SS-17-08(1-6) 1 - 6 06/23/05	OU4-SS-17-08(6-12) 6 - 12 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	17.3 U	8.35 U	4.93 U	40.81 J	37.16 J	4.65 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-08(12-18) 12 - 18 06/23/05	OU4-SS-17-09(0-1) 0 - 1 06/23/05	OU4-SS-17-09(1-6) 1 - 6 06/23/05	OU4-SS-17-09(6-12) 6 - 12 06/23/05	OU4-SS-17-09(12-18) 12 - 18 06/23/05	OU4-SS-17-10(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	11 U	19.44 U	22.99 J	12.19 U	7.15 U	15.47 U
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Iron	mg/kg	NA	NA	NA	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-17-10(1-6) 1 - 6 06/23/05	OU4-SS-17-10(6-12) 6 - 12 06/23/05	OU4-SS-17-10(12-18) 12 - 18 06/23/05
Metals - XRF (USEPA SW-846 62(				
Arsenic	mg/kg	17.49 U	40.7 J	76.08 J
Cadmium	mg/kg	NA	NA	NA
Iron	mg/kg	NA	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-15-11(0-1) 0 - 1 06/24/05	OU4-SS-15-12(0-1) 0 - 1 06/24/05	OU4-SS-15-13(0-1) 0 - 1 06/24/05	OU4-SS-15-14(0-1) 0 - 1 06/24/05	OU4-SS-15-15(0-1) 0 - 1 06/24/05
Metals - XRF (USEPA SW-846 6200)						
Arsenic	mg/kg	18.2 J	12.6 U	26.5 J	9.71 U	20.8 [19.2] J
Cadmium	mg/kg	96.9	78.6	81.5	36.5	106 [108]

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-01(6-12) 6 - 12 06/24/05	OU4-SS-13-02(6-12) 6 - 12 06/24/05	OU4-SS-13-03(6-12) 6 - 12 06/24/05	OU4-SS-13-04(6-12) 6 - 12 06/24/05	OU4-SS-13-05(6-12) 6 - 12 06/24/05	OU4-SS-13-06(6-12) 6 - 12 06/24/05
Metals - XRF (USEPA SW-846 6200)							
Arsenic	mg/kg	29.2 J	12.43 J	59.91 J	6.87 U	12.08 J	12.75 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	17.67 JQ	7.78 U J	82.28 J	7.88 U J	7.98 U J	19.92 JQ

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-13-07(6-12) 6 - 12 06/24/05	OU4-SS-13-08(6-12) 6 - 12 06/24/05	OU4-SS-13-09(6-12) 6 - 12 06/24/05	OU4-SS-13-10(6-12) 6 - 12 06/24/05	OU4-SS-14-10(0-1) 0 - 1 06/24/05	OU4-SS-14-11(0-1) 0 - 1 06/23/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	10.96 J	12.89 J	7.09 U	11.56 J	18.52 J	12.15 J
Cadmium	mg/kg	NA	NA	NA	NA	48.95	NA
Mercury	mg/kg	8.08 U	10.16 JQ	7.83 U J	7.76 U J	NA	NA

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-14-12(0-1) 0 - 1 06/23/05	OU4-SS-14-13(0-1) 0 - 1 06/23/05	OU4-SS-14-14(0-1) 0 - 1 06/23/05	OU4-SS-14-15(0-1) 0 - 1 06/23/05	OU4-SS-16-16(12-18) 12 - 18 06/24/05	OU4-SS-16-17(12-18) 12 - 18 06/24/05
Metals - XRF (USEPA SW-846 62(							
Arsenic	mg/kg	33.41 J	19.8 J	12.6 U	14.72 U	29.07 U	7.1 J
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	NA	NA	NA	121.1 J	7.42 UJ

Note:
NA- Not Analyzed.

Table
Summary of Soil Sample Analytical Results

Sample ID: Sample Depth(Inches): Date Collected:	Units	OU4-SS-16-18(12-18) 12 - 18 06/24/05	OU4-SS-16-19(12-18) 12 - 18 06/24/05	OU4-SS-16-20(12-18) 12 - 18 06/24/05
Metals - XRF (USEPA SW-846 62(				
Arsenic	mg/kg	7.27 J	9.46 U	9.38 J
Cadmium	mg/kg	NA	NA	NA
Mercury	mg/kg	7.63 U J	7.96 U J	7.93 U J

Note:
NA- Not Analyzed.

Data qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte reporting limit.

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

JQ The analyte was detected above the reported limit but below the method detection limit; therefore the reported value should not be used for quantitative measurement.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

ASSOCIATED QA/QC

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	235.17	208	113.06	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	220.8	208	106.15	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD3-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	227.53	208	109.39	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD4-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	220.28	208	105.90	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD5-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	212.7	208	102.26	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD6-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.04	208	106.27	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD7-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	225.98	208	108.64	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD8-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	225.06	208	108.20	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD9-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	208.35	208	100.17	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD10-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	230.35	208	110.75	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD11-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.95	208	106.71	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD12-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	231.7	208	111.39	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD13-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	219.29	208	105.43	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD14-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	227.4	208	109.33	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD15-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	233.52	208	112.27	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD16-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	231.31	208	111.21	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD17-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	228.92	208	110.06	Acceptable
Cadmium	137.35	141	97.41	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD18-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	231.09	208	111.10	Acceptable
Cadmium	133.84	141	94.92	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD19-062305 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	221.5	208	106.49	Acceptable
Cadmium	135.65	141	96.21	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD1-062405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	215.54	208	103.63	Acceptable
Cadmium	159.53	141	113.14	Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Percent Recovery

Sample Name: OU4-SS-CLPSTD2-062405 **Standard:** CLP D043540

Analyte	Result Value	True Value	Percent Recovery	Acceptable (80 - 120)
Arsenic	225.98	208	108.64	Acceptable
Mercury	98.4	11.2	878.57	Not Acceptable

Note: The concentrations of Co and Hg contained in the reference standard CLP STD are below the level of detection.

Method and Equipment Blank Summary of Soil Sample Analytical Results

METHOD BLANKS										
Sample ID: Sample Depth(): Date Collected:	Units	OU4-SS-MBLANK1-062305 06/23/05	OU4-SS-MBLANK2-062305 06/23/05	OU4-SS-MBLANK3-062305 06/23/05	OU4-SS-MBLANK4-062305 06/23/05	OU4-SS-MBLANK5-062305 06/23/05	OU4-SS-MBLANK6-062305 06/23/05	OU4-SS-MBLANK7-062005 06/20/05	OU4-SS-MBLANK7-062105 06/21/05	OU4-SS-MBLANK7-062205 06/22/05
Metals - XRF										
Arsenic	mg/kg	3.41 U	3.3 U	3 37 U	3.33 U	3.39 U	3.49 U	3.54 U	3.48 U	3.39 U

METHOD BLANKS CONTINUED										
Sample ID: Sample Depth(): Date Collected:	Units	OU4-SS-MBLANK7-062305 06/23/05	OU4-SS-MBLANK8-062305 06/23/05	OU4-SS-MBLANK9-062105 06/21/05	OU4-SS-MBLANK9-062205 06/22/05	OU4-SS-MBLANK9-062305 06/23/05	OU4-SS-MBLANK10-062305 06/23/05	OU4-SS-MBLANK11-062305 06/23/05	OU4-SS-MBLANK12-062105 06/21/05	OU4-SS-MBLANK12-062305 06/23/05
Metals - XRF										
Arsenic	mg/kg	3.39 U	3.43 U	3.4 U	3.38 U	3.47 U	3.38 U	3.36 U	3.5 U	3.4 U

METHOD BLANKS CONTINUED										
Sample ID: Sample Depth(): Date Collected:	Units	OU4-SS-MBLANK13-062305 06/23/05	OU4-SS-MBLANK14-062305 06/23/05	OU4-SS-MBLANK15-062305 06/23/05	OU4-SS-MBLANK16-062305 06/23/05	OU4-SS-MBLANK17-062305 06/23/05	OU4-SS-MBLANK18-062305 06/23/05	OU4-SS-MBLANK19-062305 06/23/05	OU4-SS-MBLANK1-062405 06/24/05	OU4-SS-MBLANK2-062405 06/24/05
Metals - XRF										
Arsenic	mg/kg	3.48 U	**3.99**	3 35 U	3.24 U	3.47 U	3.46 U	3.33 U	3.27 U	3.36 U

EQUIPMENT BLANKS					
Sample ID: Date Collected:	Units	OU4-SS-EBLANK17-062305 06/23/05	OU4-SS-EBLANK18-062305 06/23/05	OU4-SS-EBLANK19-062305 06/23/05	OU4-SS-EBLANK1-062405 06/24/05
Metals - XRF (USEPA SW-846 6200)					
Cadmium	mg/kg	**36.8**	31.8 U	31.8 U	32.4 U

Only detected analytes on specified day of analysis are summarized.

Summary Precision Measurements of Soil Sample Analytical Results

Sample ID Sample Depth(Inches) Date Collected	Units	1/5 RAL	OU4-SS-13-07(1-6) 1 - 6 6/22/05	OU4-SS-13-07(1-6)-1 1 - 6 6/23/05	OU4-SS-13-07(1-6)-2 1 - 6 6/23/05	OU4-SS-13-07(1-6)-3 1 - 6 6/23/05	OU4-SS-13-07(1-6)-4 1 - 6 6/23/05	OU4-SS-13-07(1-6)-5 1 - 6 6/23/05	OU4-SS-13-07(1-6)-6 1 - 6 6/23/05	OU4-SS-13-07(1-6)-7 1 - 6 6/23/05
Metals - XRF (USEPA SW-846 6200)										
Arsenic	mg/kg	8 6	27.09	7.91	7.15	11.43	8 84	7.18	7 23	7 65

	Arsenic
STD	6.830480008
MEAN	10.56
RSD	64.68257584

Note:
Highlighted cells indicate a non-detect sample result which was adjusted to the full detection limit for computation of the RSD.
The data are not adjusted for percent solids.

Appendix E

Laboratory Data Validation Reports (Electronic Data on CD-ROM)

Sample Delivery Group Summary

The following information and summary table provides a list of the criteria for qualifying data and is provided in response to Comment 5e of the Illinois EPA Comments on the Removal Action Limit (RAL) Assessment Report.

Analyses were performed according to USEPA SW-846 Method 6200. Data were reviewed in accordance with USEPA National Functional Guidelines. The quality indicators of this limited data review included holding times, associated blanks, instrument calibration, method detection limit study, precision measurement, and field duplicate relative percent difference.

The data review process is an evaluation of data on a technical basis, rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. During the review process, the data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Data Qualifier	Definition	List of Possible Causes***
U	The analyte was analyzed for but not detected.	• The associated value is the analyte instrument detection limit. • Sample results exhibit a concentration less than the blank action level.
UJ	The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.	• Holding times have been exceeded. • Continuing calibration sample results were outside acceptable limits. • Calibration standard % recoveries were outside control limits. • The associated relative standard deviation is outside the required control limits. • Field duplicate %RPD exceeds acceptable limits. • Calibration standards were not reported.
J	The analyte was positively identified; however, the associated numerical value is an estimated concentration only.	
JQ	The analyte was detected above the reported limit but below the method detection limit (MDL): therefore the reported value should not be used for quantitative measurement.	• Sample results exhibit a concentration less than the MDL. Can be used quantitatively.
R	The reported target compound/analyte concentration was rejected	• Non-detected samples results associated with a calibration standard exhibiting a recovery less than 50%.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not

appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# DPU02

METALS ANALYSES

Analyses performed by:

Lancaster Laboratories, Inc.
Lancaster, Pennsylvania

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York
Summary

The following is an assessment of the data package for SDG#DPU02 for sampling from the RAL DePue Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis					
				VOA	SVOC	PCB	MET	PEST	MISC
OU4-SS-01-COMP1(0-1)	4541870	Soil	5/31/2005				X		
OU4-SS-01-COMP1(1-6)	4541871	Soil	5/31/2005				X		
OU4-SS-01-COMP2(0-1)	4541872	Soil	6/1/2005				X		
OU4-SS-01-COMP2(1-6)	4541873	Soil	6/1/2005				X		
OU4-SS-01-COMP3(0-1)	4541874	Soil	6/1/2005				X		
OU4-SS-01-COMP3(1-6)	4541875	Soil	6/1/2005				X		
OU4-SS-01-COMP3(6-12)	4541876	Soil	6/1/2005				X		
OU4-SS-01-COMP3(12-18)	4541877	Soil	6/1/2005				X		
OU4-SS-01-COMP4(0-1)	4541878	Soil	6/1/2005				X		
OU4-SS-01-COMP4(1-6)	4541879	Soil	6/1/2005				X		
OU4-SS-01-COMP4(12-18)	4541880	Soil	6/1/2005				X		
OU4-SS-01-COMP5(0-1)	4541881	Soil	6/2/2005				X		
OU4-SS-01-COMP5(1-6)	4541882	Soil	6/2/2005				X		
OU4-SS-01-COMP5(6-12)	4541883	Soil	6/2/2005				X		

METALS ANALYSES

Introduction

Analyses were performed according to USEPA 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of February 1994.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

J The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).

Quantitation (Q) qualifiers:

E The reported value is estimated due to the presence of interference.

N Spiked sample recovery not within control limits.

* Duplicate analysis not within control limits.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days and for mercury is 28 days from sample receipt. Samples are required to be preserved at 4°C.

All samples were analyzed within the specified holding times.

Note: Sample temperatures were greater than the required preservation temperature of 4°C.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

Barium, cadmium, calcium, chromium, cooper, iron, magnesium, manganese, potassium and zinc were detected above the method detection limit in the method blank and/or the calibration blank. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

3.1 Initial Calibration

The correct number and type of standards were analyzed and all initial calibration verification standard recoveries were within control limits.

3.2 Continuing Calibration

All continuing calibration verification standard exhibited recoveries within control limits.

3.3 CRDL Standard

All required analytes evaluated by the guidelines exhibited CDRL recoveries within the control limit with the exception of copper and manganese. The CRDL the listed analytes exhibited recoveries greater than the control limits. All associated sample locations exhibited sample result concentrations greater than two times the reporting limit; therefore, none of the data were qualified due to this deviation.

3.3 ICP Interference Control Sample

All ICS exhibited recoveries within control limits.

4. Matrix Spike/ Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

The MS/MSD of sodium exhibited recoveries greater than control limits. All associated sample results for sodium were qualified as estimated.

4.2 Laboratory Duplicate

The laboratory duplicate results were within control limits.

5. Field Duplicate

No field duplicates were associated with this SDG.

6. Laboratory Control Sample (LCS)

LCS exhibited recoveries were within the control limits.

7. Serial Dilution

Serial dilutions exhibited %D within control limits.

8. Furnace QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist

	YES		NO		NA
Data Completeness and Deliverables					
Is there a narrative or cover letter present?	X				
Are the sample numbers included in the narrative?	X				
Are the sample chain-of-custodies present?	X				
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	X				
Is the package paginated?	X				
Are the forms and copies legible?	X				

Form I to IX					
Are all the Form I through Form IX labeled with:					
Laboratory name?	X				
Sample No.?	X				
SDG No.?	X				
Correct units?	X				
Matrix?	X				

Raw Data					
Is the digestion log for flame AA/ICP present?	X				
Is the digestion log for furnace AA present?					X
Is the distillation log for mercury present?	X				
Is the distillation log for cyanides present?					X
Are pH values listed?					
pH for metals analyses <2 (waters)?					X
pH for cyanide analyses >12 (waters)?					X
Percent solids calculation present for soils/sediments?	X				
Are preparation dates present on sample preparation logs/bench sheets?	X				
Are the measurement read out records present for:					
ICP	X				
Flame AA					X
Furnace AA					X
Mercury	X				
Cyanides					X
Is the data legible?	X				
Is the data properly labeled?	X				

Inorganic Data Validation Checklist

	YES		NO		NA
Holding Times					
Were mercury analyses performed within 28 days?	X				
Were cyanide distillations performed within 14 days?					X
Were other metal analysis performed within 6 months?	X				

Form I (Final Data)					
Are all forms complete?	X				
Are correct units indicated on Form I's?	X				
Are soil sample results for each parameter corrected for percent solids?	X				
Are all "less than IDL" values properly coded with "U"?	X				
Are the correct concentration qualifiers on Form 1's?	X				
Is a physical description of samples given on Form I's?	X				

Calibration					
Is a record of at least 2 point calibration present for ICP analysis?	X				
Is a record of 5 point calibration present for Hg analysis?	X				
Is a record of 4 point calibration present for:					
Flame AA?					X
Furnace AA?					X
Cyanides?					X
Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?					X
Is correlation coefficient less than .995 for:					
Mercury Analysis?			X		
Cyanide Analysis?					X
Atomic Absorption Analysis?					X

Form II A (Initial and Continuing Calibration Verification)					
Present and complete for all analytes?	X				
Are all calibration standards (initial and continuing) within control limits for:					
Metals (90-110%)?	X				
Hg (80-120%)?	X				
Cyanides (85-115%)?					X
Was continuing calibration performed every 10 samples or every 2 hours?	X				

Inorganic Data Validation Checklist

	YES		NO		NA
Was the ICV for cyanides distilled?					X

Form II B (CRDL Standards for AA and ICP)					
Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?					X
Was a mid-range calibration verification standard distilled and analyzed for cyanide analysis?					X
Was a 2xCRDL (or 2xIDL when IDL>CRDL) standard (CRI) analyzed for each ICP run?					X
Was CRI analyzed after the ICV/ICB and before the final CCV/CCB, and twice every eight hours for each ICP run?					X
Are CRA and CRI standards within control limits for metals (60-120%)?					X
Is mid-range standard within control limits for cyanide (80-120%)					X

Form III (Initial and Continuing Calibration Blanks)					
Present and complete?	X				
Was an initial calibration blank analyzed?	X				
Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X				
Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X				
Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?	X				

Form III (Preparation Blank)					
Was one prep. blank analyzed for:					
each Sample Delivery Group SDG)?	X				
each batch of digested samples?	X				
each matrix type?	X				
Is concentration of prep. blank value less than the CRDL (when IDL≤CRDL)?	X				
If no, is the concentration of the sample with the least concentrated analyte less than 10 times the prep. blank?					X
Is concentration of prep. blank value less than two times IDL (when IDL>CRDL)?			X		
Is concentration of prep. blank below the negative CRDL?			X		

Form IV (ICP Interference Check Sample)					

Inorganic Data Validation Checklist

	YES		NO		NA
Present and complete?	X				
Was ICS analyzed at beginning and end of run (or at least twice every 8 hours)?	X				
Are all ICS results inside the control limits (±20%)?	X				
If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?					X

Form V A (Spiked Sample Recovery - Pre-Digestion/Pre-Distillation					
Present and complete for:					
each SDG?	X				
each matrix type?	X				
Was field blank used for spiked sample?			X		
Are all recoveries for analytes with sample concentrations less than four times the spike concentration within control limits (75-125)?			X		
Are results outside the control limits (75-125%) flagged with "N" on Form I's and Form VA?					X
Aqueous					
Are any spike recoveries:					
less than 30%?					X
between 30-74%?					X
between 126-150%?					X
greater then 150%?					X
Soil/Sediment					
Are any spike recoveries:					
less than 10%?			X		
between 10-74%?			X		
between 126-200%?	X				
greater than 200%?			X		
Form VI (Lab Duplicates)					
Present and complete for:					
each SDG?	X				
each matrix type?	X				
Was field blank used for duplicate analysis?			X		
Are all values within control limits (RPD 20% or difference ≤ ±CRDL)?	X				
					X

Inorganic Data Validation Checklist

	YES		NO		NA
If no, are all results outside the control limits flagged with an * on Form I's and VI?					
Aqueous					
Is any RPD greater than 20% where sample and duplicate are both greater than or equal to 5 times CRDL?					X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?					X
Soil/Sediment					
Is any RPD (where sample and duplicate are both greater than or equal to 5 times CRDL) >35 %?			X		
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5xCRDL) > 2xCRDL?			X		

Field Duplicates					
Were field duplicates analyzed?			X		
Aqueous					
is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5xCRDL?					X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5xCRDL?					X
Soil/Sediment					
Is any RPD (where sample and duplicate are both greater than 5 times CRDL) > 100%?					X
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL) >2xCRDL?					X

Form VII (Laboratory Control Sample)					
Was one LCS prepared and analyzed for:					
each SDG?	X				
each batch samples digested/distilled?	X				
Aqueous LCS					
Is any LCS recovery:					X
less than 50%?					X
between 50% and 79%?					X
between 121% and 150%?					X
greater than 150%?					X

Inorganic Data Validation Checklist

	YES		NO		NA
Solid LCS					
Is LCS "Found" value higher than the control limits?			X		
Is LCS "Found" lower than the control limits?			X		

Form IX (ICP Serial Dilution)					
Was Serial Dilution analysis performed for:					
each SDG?	X				
each matrix type?	X				
Was field blank(s) used for Serial Dilution Analysis?			X		
Are results outside control limits flagged with an "E"" on Form I's and Form IX when the initial concentration on Form IX is equal to 50 times IDL or greater.			X		
Are any required % difference values:					
> 10%?			X		
≥100%?			X		

Furnace Atomic Absorption (AA) QC Analysis					
Are duplicate injections present in furnace raw data (except during full Method of Standard Addition) for each sample analyzed by GFAA?					X
Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or coefficient of Variation (CV) for concentrations greater than CRDL?					X
Were dilutions analyzed for samples with analytical spike recovery less than 40%?					X
Is analytical spike recovery outside the control limits (85-115%) for any sample?					X

Form VIII (Method of Standard Addition Results)					
Present?					X
If no, is any Form I result coded with "S" or "+"?					X
Was MSA required for any sample but not performed?					X
Is the coefficient of correlation for MSA less than 0.995 for any sample?					X
Is the coefficient of correlation for MSA less than 0.990 for any sample?					X
Was proper quantitation procedure followed?					X

Dissolved/Total for Inorganic/Total Analytes					
Were any analyses performed for dissolved as well as total analytes on the same sample.					X
Is the concentration of any dissolved analyte greater than its total concentration by more than 10%? (if >CRDL)					X
Is the concentration of any dissolved analyte greater than its total concentration by more					X

Inorganic Data Validation Checklist

	YES		NO		NA
than 50%?					
Field Blank					
Is the field blank concentration less than CRDL (or 2xIDL when IDL>CRDL) for all analytes?					X
If no, was field blank value already rejected due to other QC criteria?					X

Form X, XI, XII (Verification of Instrumental Parameters)					
Is verification report present for :					
Instrument Detection Limits (quarterly)?	X				
ICP Interelement Correlation Factors (annually)?	X				
ICP Linear Ranges (quarterly)?	X				
Is IDL greater than CRDL for any analyte?			X		
If yes, are the concentrations of the samples analyzed on the instrument whose IDL exceeds CRDL, greater than 5xIDL.					X
Was any sample result higher than the linear range of ICP.			X		
Was any sample result higher than the highest calibration standard for non-ICP parameters?			X		
If yes for any of the above, was the sample diluted to obtain the result on Form I?					X

Percent Solids					
Are the percent solids in soil/sediment(s):					
< 50%?			X		
< 10%?			X		

Corrected Sample Analysis Data Sheets

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541870

OU4-SS-01-COMP1(0-1) Soil Sample

RAL DePue Site
Collected:05/31/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU101 SDG#: DPU02-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Units	Dilution Factor
00159	Mercury	7439-97-6	0.101	J	0.110	mg/kg	1
01643	Aluminum	7429-90-5	8,330.		22.1	mg/kg	1
01650	Calcium	7440-70-2	8,950.		33.1	mg/kg	1
01654	Iron	7439-89-6	15,200.		22.1	mg/kg	1
01657	Magnesium	7439-95-4	4,280.		27.6	mg/kg	1
01662	Potassium	7440-09-7	1,380.		55.1	mg/kg	1
01667	Sodium	7440-23-5	96.6	J	110.	mg/kg	1
06925	Thallium	7440-28-0	N.D.		1.10	mg/kg	1
06935	Arsenic	7440-38-2	9.05		1.10	mg/kg	1
06936	Selenium	7782-49-2	N.D.		1.10	mg/kg	1
06944	Antimony	7440-36-0	N.D.		6.62	mg/kg	1
06946	Barium	7440-39-3	4,960.		11.0	mg/kg	5
06947	Beryllium	7440-41-7	0.551		0.331	mg/kg	1
06949	Cadmium	7440-43-9	35.3		2.21	mg/kg	1
06951	Chromium	7440-47-3	14.5		4.41	mg/kg	1
06952	Cobalt	7440-48-4	6.97		5.51	mg/kg	1
06953	Copper	7440-50-8	43.5		4.41	mg/kg	1
06955	Lead	7439-92-1	612.		11.0	mg/kg	1
06958	Manganese	7439-96-5	461.		2.21	mg/kg	1
06961	Nickel	7440-02-0	16.4		5.51	mg/kg	1
06966	Silver	7440-22-4	1.04	J	2.21	mg/kg	1
06971	Vanadium	7440-62-2	21.3		2.21	mg/kg	1
06972	Zinc	7440-66-6	2,540.		11.0	mg/kg	5
00111	Moisture Code 086	n.a.	9.3		0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						
00394	pH Code 067	n.a.	7.0		0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.						

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Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

Lancaster Laboratories, Inc.
2425 New Holland Pike
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Analysis Report

Lancaster Laboratories

REVISED

Lancaster Laboratories Sample No. SW 4541871

OU4-SS-01-COMP1(1-6) Soil Sample

RAL DePue Site
Collected:05/31/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU116 SDG#: DPU02-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	8.82	1.06	mg/kg	1
00111	Moisture Code 086	n.a.	5.7	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.1	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 07:26	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0011

MEMBER ACIL
Lancaster Laboratories, Inc.
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717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

REVISED

Lancaster Laboratories Sample No. SW 4541872

OU4-SS-01-COMP2(0-1) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU201 SDG#: DPU02-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	10.3	1.10	mg/kg	1
00111	Moisture Code 086	n.a.	8.8	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	6.6	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 07:30	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0012

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717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541873

OU4-SS-01-COMP2(1-6) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU216 SDG#: DPU02-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Units	Dilution Factor
00159	Mercury	7439-97-6	0.196		0.109	mg/kg	1
01643	Aluminum	7429-90-5	8,360.		21.8	mg/kg	1
01650	Calcium	7440-70-2	5,460.		32.7	mg/kg	1
01654	Iron	7439-89-6	13,400.		21.8	mg/kg	1
01657	Magnesium	7439-95-4	3,680.		27.2	mg/kg	1
01662	Potassium	7440-09-7	1,450.		54.5	mg/kg	1
01667	Sodium	7440-23-5	80.7	J	109.	mg/kg	1
06925	Thallium	7440-28-0	N.D.		1.09	mg/kg	1
06935	Arsenic	7440-38-2	13.8		1.09	mg/kg	1
06936	Selenium	7782-49-2	N.D.		1.09	mg/kg	1
06944	Antimony	7440-36-0	N.D.		6.54	mg/kg	1
06946	Barium	7440-39-3	2,340.		10.9	mg/kg	5
06947	Beryllium	7440-41-7	0.604		0.327	mg/kg	1
06949	Cadmium	7440-43-9	14.6		2.18	mg/kg	1
06951	Chromium	7440-47-3	14.7		4.36	mg/kg	1
06952	Cobalt	7440-48-4	6.72		5.45	mg/kg	1
06953	Copper	7440-50-8	28.4		4.36	mg/kg	1
06955	Lead	7439-92-1	314.		10.9	mg/kg	1
06958	Manganese	7439-96-5	484.		2.18	mg/kg	1
06961	Nickel	7440-02-0	13.9		5.45	mg/kg	1
06966	Silver	7440-22-4	0.387	J	2.18	mg/kg	1
06971	Vanadium	7440-62-2	19.7		2.18	mg/kg	1
06972	Zinc	7440-66-6	1,910.		10.9	mg/kg	5
00111	Moisture Code 086	n.a.	8.2		0.50	%	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

00394	pH Code 067	n.a.	6.7		0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

0013

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541874

OU4-SS-01-COMP3(0-1) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU301 SDG#: DPU02-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Units	Dilution Factor
00159	Mercury	7439-97-6	0.0700	J	0.108	mg/kg	1
01643	Aluminum	7429-90-5	6,160.		21.5	mg/kg	1
01650	Calcium	7440-70-2	6,920.		32.3	mg/kg	1
01654	Iron	7439-89-6	9,980.		21.5	mg/kg	1
01657	Magnesium	7439-95-4	4,060.		26.9	mg/kg	1
01662	Potassium	7440-09-7	1,140.		53.8	mg/kg	1
01667	Sodium	7440-23-5	55.3	J	108.	mg/kg	1
06925	Thallium	7440-28-0	N.D.		1.08	mg/kg	1
06935	Arsenic	7440-38-2	6.30		1.08	mg/kg	1
06936	Selenium	7782-49-2	N.D.		1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.		6.45	mg/kg	1
06946	Barium	7440-39-3	1,340.		10.8	mg/kg	5
06947	Beryllium	7440-41-7	0.362		0.323	mg/kg	1
06949	Cadmium	7440-43-9	17.6		2.15	mg/kg	1
06951	Chromium	7440-47-3	11.3		4.30	mg/kg	1
06952	Cobalt	7440-48-4	4.44	J	5.38	mg/kg	1
06953	Copper	7440-50-8	24.6		4.30	mg/kg	1
06955	Lead	7439-92-1	168.		10.8	mg/kg	1
06958	Manganese	7439-96-5	334.		2.15	mg/kg	1
06961	Nickel	7440-02-0	10.9		5.38	mg/kg	1
06966	Silver	7440-22-4	0.342	J	2.15	mg/kg	1
06971	Vanadium	7440-62-2	14.8		2.15	mg/kg	1
06972	Zinc	7440-66-6	1,420.		10.8	mg/kg	5
00111	Moisture Code 086	n.a.	7.0		0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						
00394	pH Code 067	n.a.	7.1		0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.						

Laboratory Chronicle

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CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

REVISED

Lancaster Laboratories Sample No. SW 4541875

OU4-SS-01-COMP3(1-6) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU316 SDG#: DPU02-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	11.5	1.06	mg/kg	1
00111	Moisture Code 086	n.a.	5.4	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.3	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 07:45	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0817

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717-656-2300 Fax: 717-656-2681

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541876

OU4-SS-01-COMP3(6-12) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU361 SDG#: DPU02-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	23.0	1.07	mg/kg	1
00111	Moisture Code 086	n.a.	6.8	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.5	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 07:49	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0018

MEMBER ACIL
Lancaster Laboratories, Inc.
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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

REVISED

Lancaster Laboratories Sample No. SW 4541877

OU4-SS-01-COMP3(12-18) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU312 SDG#: DPU02-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	12.3	1.09	mg/kg	1
00111	Moisture Code 086	n.a.	8.6	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.7	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 08:03	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0019

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541878

OU4-SS-01-COMP4(0-1) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU401 SDG#: DPU02-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	10.1	1.07	mg/kg	1
00111	Moisture Code 086	n.a.	6.2	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	6.7	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 08:08	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0020

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Analysis Report

Lancaster Laboratories

REVISED

Lancaster Laboratories Sample No. SW 4541879

OU4-SS-01-COMP4(1-6) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU416 SDG#: DPU02-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	10.6	1.06	mg/kg	1
00111	Moisture Code 086	n.a.	5.7	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.0	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 08:13	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0021

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Analysis Report

Lancaster Laboratories

REVISED

Lancaster Laboratories Sample No. SW 4541880

OU4-SS-01-COMP4(12-18) Soil Sample

RAL DePue Site
Collected:06/01/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:37
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU412 SDG#: DPU02-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	11.1	1.08	mg/kg	1
00111	Moisture Code 086	n.a.	7.3	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.9	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 08:17	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

0022

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Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541881

OU4-SS-01-COMP5(0-1) Soil Sample

RAL DePue Site
Collected:06/02/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:38
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU501 SDG#: DPU02-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
00159	Mercury	7439-97-6	0.0755 J	0.108	mg/kg	1
01643	Aluminum	7429-90-5	10,000.	21.6	mg/kg	1
01650	Calcium	7440-70-2	11,700.	32.5	mg/kg	1
01654	Iron	7439-89-6	16,100.	21.6	mg/kg	1
01657	Magnesium	7439-95-4	7,670.	27.1	mg/kg	1
01662	Potassium	7440-09-7	1,460.	54.1	mg/kg	1
01667	Sodium	7440-23-5	126. J	108.	mg/kg	1
06925	Thallium	7440-28-0	N.D.	1.08	mg/kg	1
06935	Arsenic	7440-38-2	8.90	1.08	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.49	mg/kg	1
06946	Barium	7440-39-3	2,050.	10.8	mg/kg	5
06947	Beryllium	7440-41-7	0.482	0.325	mg/kg	1
06949	Cadmium	7440-43-9	16.3	2.16	mg/kg	1
06951	Chromium	7440-47-3	24.5	4.33	mg/kg	1
06952	Cobalt	7440-48-4	7.55	5.41	mg/kg	1
06953	Copper	7440-50-8	36.1	4.33	mg/kg	1
06955	Lead	7439-92-1	613.	10.8	mg/kg	1
06958	Manganese	7439-96-5	478.	2.16	mg/kg	1
06961	Nickel	7440-02-0	19.2	5.41	mg/kg	1
06966	Silver	7440-22-4	0.376 J	2.16	mg/kg	1
06971	Vanadium	7440-62-2	28.8	2.16	mg/kg	1
06972	Zinc	7440-66-6	2,130.	10.8	mg/kg	5
00111	Moisture Code 086	n.a.	7.6	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.3	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

0023

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

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PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541882

OU4-SS-01-COMP5(1-6) Soil Sample

RAL DePue Site
Collected:06/02/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:38
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU516 SDG#: DPU02-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	10.0	1.11	mg/kg	1
00111	Moisture Code 086	n.a.	10.2	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.2	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 08:27	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

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Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541883

OU4-SS-01-COMP5(6-12) Soil Sample

RAL DePue Site
Collected:06/02/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 07/08/2005 at 15:38
Discard: 08/08/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

OU561 SDG#: DPU02-14*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	5.63	1.10	mg/kg	1
00111	Moisture Code 086	n.a.	9.0	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.6	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 08:32	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 18:47	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:20	Annamaria Stipkovits	1

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Chain of Custody

BBL
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engineers, scientists, economists

6723 Towpath Rd
Syracuse, NY 13214-0066
(315) 446-9120

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

acct# 11594 Group# 947014 Sample# 4541870-83

PROJ. NO.	PROJECT NAME	COC Number
85534	RAL DePue Site	2

SAMPLERS: (Signiture)

SAMPLE ID	DATE	TIME	MATRIX	COMP.	GRAB	# Containers	1	2	3	4	5	6	7	HOLD	Remarks
							Requested Analyses								
OU4-SS-01-COMP1(0-1)	5/31/2005	0:00	SO			1	X	X							5/31
OU4-SS-01-COMP1(1-6)	5/31/2005	0:00	SO			1	X	X							5/31
OU4-SS-01-COMP2(0-1)	5/31/2005	0:00	SO			1	X	X							6/1
OU4-SS-01-COMP2(1-6)	5/31/2005	0:00	SO			1	X	X							6/1
OU4-SS-01-COMP3(0-1)	5/31/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP3(1-6)	5/31/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP3(6-12)	5/31/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP3(12-18)	5/31/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP4(0-1)	6/1/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP4(1-6)	6/1/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP4(12-18)	6/1/2005	0:00	SO			1	X	X							
OU4-SS-01-COMP5(0-1)	6/1/2005	0:00	SO			1	X	X							

Remarks:
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
ARSENIC ONLY
6/2

Requested Analyses
1. Metals
2. pH
3.
4.
5.
6.
7.

Special Instructions/ Comments:

☒ Special QA/QC Instructions

Laboratory Information and Receipt

Lab Name: Lancaster Laboratories
Shipping Tracking #
Specify Turnaround Requirements:

☒ Cooler packed with ice
☒ Cooler custody seal intact

Sample Receipt: intact
Condition/Cooler Temp: over 10.5°

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	6-8-05	1500					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
					6-9-05	0855	Kathy Brinkley

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engineers, scientists, economists

6723 Towpath Rd
Syracuse, NY 13214-0066
(315) 446-9120

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Lab Work Order #

acct#11594 Group#947014 Sample#4541870-83

PROJ. NO.	PROJECT NAME	COC Number
85534	RAL DePue Site	2

SAMPLERS: (Signiture)

SAMPLE ID	DATE	TIME	MATRIX	COMP.	GRAB	# Containers	Requested Analyses 1	2	3	4	5	6	7	HOLD	Remarks
OU4-SS-01-COMP5(1-6)	6/1/2005	0:00	SO			1	X	X							ARSENIC ONLY 6/2
OU4-SS-01-COMP5(6-12)	6/1/2005	0:00	SO			1	X	X							ARSENIC ONLY ↓

Requested Analyses
1. Metals
2. pH
3.
4.
5.
6.
7.

Special Instructions/ Comments:

☐ Special QA/QC Instructions

Laboratory Information and Receipt

Lab Name: Lancaster Laboratories

Shipping Tracking #

Specify Turnaround Requirements:

☒ Cooler packed with Ice

☒ Cooler custody seal intact

Sample Receipt: intact

Condition/Cooler Temp: over 10.5°

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
[signature]	6/8/05	1520					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
					6-8-05	0855	Kathy Binkley

DATA REVIEW FOR

DEPUE REMOVAL ACTION LIMIT (RAL) ASSESSMENT
DEPUE, ILLINOIS

SDG# DPU03

METALS ANALYSES

Analyses performed by:

Lancaster Laboratories, Inc.
Lancaster, Pennsylvania

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York
Summary

The following is an assessment of the data package for SDG# DPU03 for sampling from the RAL DePue Site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis					
				VOA	SVOC	PCB	MET	PEST	MISC
OU4-SS-02-COMP1(0-1)	4541884	Soil	6/2/2005				X		
OU4-SS-02-COMP1(1-6)	4541885	Soil	6/2/2005				X		
OU4-SS-02-COMP1(6-12)	4541886	Soil	6/2/2005				X		
OU4-SS-02-COMP2(1-6)	4541887	Soil	6/3/2005				X		
OU4-SS-02-COMP2(6-12)	4541888	Soil	6/3/2005				X		
OU4-SS-02-COMP2(12-18)	4541889	Soil	6/3/2005				X		
OU4-SS-02-COMP3(0-1)	4541890	Soil	6/3/2005				X		
OU4-SS-02-COMP3(1-6)	4541891	Soil	6/3/2005				X		
OU4-SS-02-COMP3(6-12)	4541892	Soil	6/3/2005				X		
OU4-SS-02-COMP4(1-6)	4541893	Soil	6/3/2005				X		
OU4-SS-02-COMP4(6-12)	4541894	Soil	6/3/2005				X		
OU4-SS-02-COMP5(0-1)	4541895	Soil	6/3/2005				X		
OU4-SS-02-COMP5(1-6)	4541896	Soil	6/3/2005				X		
OU4-SS-02-COMP5(6-12)	4541897	Soil	6/3/2005				X		

METALS ANALYSES

Introduction

Analyses were performed according to USEPA 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of February 1994.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) qualifiers:

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

J The reported value was obtained from a reading less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).

Quantitation (Q) qualifiers:

E The reported value is estimated due to the presence of interference.

N Spiked sample recovery not within control limits.

* Duplicate analysis not within control limits.

Validation qualifiers:

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for metals analyses is 180 days and for mercury is 28 days from sample receipt. Samples are required to be preserved at 4°C.

All samples were analyzed within the specified holding times.

Note: Sample temperatures were greater than the required preservation temperature of 4°C.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

Barium, calcium, cooper, potassium, manganese, and selenium were detected above the method detection limit associated with method blank and/or the calibration blank. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Rinse blank (RB060305-2) collected on 6/3/05 and associated with SDG#DPU05 contained Potassium at a concentration detected above the method detection limit. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

Rinse blanks (RB060305-1 and RB060305-2) collected on 6/3/05 and associated with SDG#DPU05 contained Sodium at a concentration detected above the method detection limit. All associated sample results were greater than the blank action limit; therefore, none of the data were qualified.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument continuing performance is satisfactory.

3.1 Initial Calibration

The correct number and type of standards were analyzed and all initial calibration verification standard recoveries were within control limits.

3.2 Continuing Calibration

All continuing calibration verification standard recoveries were within control limits.

3.3 CRDL Standard

All required analytes evaluated by the guidelines exhibited CDRL recoveries within the control limit with the exception of copper. The CRDL of copper exhibited a recovery greater than the control limit. All associated sample locations exhibited concentrations greater than two times the reporting limit; therefore, none of the data were qualified due to this deviation.

3.4 ICP Interference Control Sample

All ICS recoveries were acceptable.

4. Matrix Spike/ Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate

Matrix spike and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

The MS/MSD of barium and potassium exhibited recoveries greater than control limits. All detected associated sample results for barium and potassium were qualified as estimated.

The MS/MSD of cadmium and sodium exhibited recoveries less than control limits. All associated sample results for cadmium and sodium were qualified as estimated.

4.2 Laboratory Duplicate

The laboratory duplicate results of calcium, cooper, iron, and sodium exhibited a %D greater than control limits. All associated sample results for these analytes were qualified as estimated.

5. Field Duplicate

No field duplicates were associated with this SDG.

6. Laboratory Control Sample (LCS)

LCS exhibited recoveries were within the control limits.

7. Serial Dilution

Serial dilutions were within control limits.

8. Furnace QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist

Inorganic Data Validation Checklist

	YES		NO		NA
Data Completeness and Deliverables					
Is there a narrative or cover letter present?	X				
Are the sample numbers included in the narrative?	X				
Are the sample chain-of-custodies present?	X				
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	X				
Is the package paginated?	X				
Are the forms and copies legible?	X				

Form I to IX					
Are all the Form I through Form IX labeled with:					
Laboratory name?	X				
Sample No.?	X				
SDG No.?	X				
Correct units?	X				
Matrix?	X				

Raw Data					
Is the digestion log for flame AA/ICP present?	X				
Is the digestion log for furnace AA present?					X
Is the distillation log for mercury present?					X
Is the distillation log for cyanides present?					X
Are pH values listed?					
pH for metals analyses <2 (waters)?					X
pH for cyanide analyses >12 (waters)?					X
Percent solids calculation present for soils/sediments?	X				
Are preparation dates present on sample preparation logs/bench sheets?	X				
Are the measurement read out records present for:					
ICP	X				
Flame AA					X
Furnace AA					X
Mercury	X				
Cyanides					X
Is the data legible?	X				
Is the data properly labeled?	X				

Holding Times					
Were mercury analyses performed within 28 days?	X				

Inorganic Data Validation Checklist

	YES		NO		NA
Were cyanide distillations performed within 14 days?					X
Were other metal analysis performed within 6 months?	X				

Form I (Final Data)					
Are all forms complete?	X				
Are correct units indicated on Form I's?	X				
Are soil sample results for each parameter corrected for percent solids?	X				
Are all "less than IDL" values properly coded with "U"?	X				
Are the correct concentration qualifiers on Form 1's?	X				
Is a physical description of samples given on Form I's?	X				

Calibration					
Is a record of at least 2 point calibration present for ICP analysis?	X				
Is a record of 5 point calibration present for Hg analysis?	X				
Is a record of 4 point calibration present for:					
Flame AA?					X
Furnace AA?					X
Cyanides?					X
Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?					X
Is correlation coefficient less than .995 for:					
Mercury Analysis?			X		
Cyanide Analysis?					X
Atomic Absorption Analysis?					X

Form II A (Initial and Continuing Calibration Verification)					
Present and complete for all analytes?	X				
Are all calibration standards (initial and continuing) within control limits for:					
Metals (90-110%)?	X				
Hg (80-120%)?	X				
Cyanides (85-115%)?					X
Was continuing calibration performed every 10 samples or every 2 hours?	X				
Was the ICV for cyanides distilled?					X

Form II B (CRDL Standards for AA and ICP)					
Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X				
Was a mid-range calibration verification standard distilled and analyzed for cyanide analysis?					X

Inorganic Data Validation Checklist

	YES		NO		NA
Was a 2xCRDL (or 2xIDL when IDL>CRDL) standard (CRI) analyzed for each ICP run?	X				
Was CRI analyzed after the ICV/ICB and before the final CCV/CCB, and twice every eight hours for each ICP run?	X				X
Are CRA and CRI standards within control limits for metals (70-130%)?			X		

Form III (Initial and Continuing Calibration Blanks)					
Present and complete?	X				
Was an initial calibration blank analyzed?	X				
Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X				
Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X				
Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?	X				

Form III (Preparation Blank)					
Was one prep. blank analyzed for:					
each Sample Delivery Group SDG)?	X				
each batch of digested samples?	X				
each matrix type?	X				
Is concentration of prep. blank value less than the CRDL (when IDL≤CRDL)?	X				
If no, is the concentration of the sample with the least concentrated analyte less than 10 times the prep. blank?					X
Is concentration of prep. blank value less than two times IDL (when IDL>CRDL)?			X		
Is concentration of prep. blank below the negative CRDL?			X		

Form IV (ICP Interference Check Sample)					
Present and complete?	X				
Was ICS analyzed at beginning and end of run (or at least twice every 8 hours)?	X				
Are all ICS results inside the control limits (±20%)?	X				
If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?					X

Form V A (Spiked Sample Recovery - Pre-Digestion/Pre-Distillation					
Present and complete for:					
each SDG?	X				
each matrix type?	X				
Was field blank used for spiked sample?			X		
			X		

Inorganic Data Validation Checklist

	YES		NO		NA
Are all recoveries for analytes with sample concentrations less than four times the spike concentration within control limits (75-125)?					
Are results outside the control limits (75-125%) flagged with "N" on Form I's and Form VA?					X
Aqueous					
Are any spike recoveries:					
less than 30%?					X
between 30-74%?					X
between 126-150%?					X
greater then 150%?					X
Soil/Sediment					
Are any spike recoveries:					
less than 10%?			X		
between 10-74%?	X				
between 126-200%?	X				
greater than 200%?			X		

Form VI (Lab Duplicates)					
Present and complete for:					
each SDG?	X				
each matrix type?	X				
Was field blank used for duplicate analysis?			X		
Are all values within control limits (RPD 20% or difference ≤ ±CRDL)?			X		
If no, are all results outside the control limits flagged with an * on Form I's and VI?	X				
Aqueous					
Is any RPD greater than 20% where sample and duplicate are both greater than or equal to 5 times CRDL?					X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?					X
Soil/Sediment					
Is any RPD (where sample and duplicate are both greater than or equal to 5 times CRDL) >35 %?			X		
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5xCRDL) > 2xCRDL?			X		

Field Duplicates					
Were field duplicates analyzed?			X		
Aqueous					

Inorganic Data Validation Checklist

	YES		NO		NA
is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5xCRDL?					X
Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5xCRDL?					X
Soil/Sediment					
Is any RPD (where sample and duplicate are both greater than 5 times CRDL) > 100%?					X
Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL) >2xCRDL?					X

Form VII (Laboratory Control Sample)					
Was one LCS prepared and analyzed for:					
each SDG?	X				
each batch samples digested/distilled?	X				
Aqueous LCS					
Is any LCS recovery:					X
less than 50%?					X
between 50% and 79%?					X
between 121% and 150%?					X
greater than 150%?					X
Solid LCS					
Is LCS "Found" value higher than the control limits?			X		
Is LCS "Found" lower than the control limits?			X		

Form IX (ICP Serial Dilution)					
Was Serial Dilution analysis performed for:					
each SDG?	X				
each matrix type?	X				
Was field blank(s) used for Serial Dilution Analysis?			X		
Are results outside control limits flagged with an "E"" on Form I's and Form IX when the initial concentration on Form IX is equal to 50 times IDL or greater.			X		
Are any required % difference values:					
> 10%?	X				
≥100%?			X		

Furnace Atomic Absorption (AA) QC Analysis					
Are duplicate injections present in furnace raw data (except during full Method of Standard Addition) for each sample analyzed by GFAA?					X
Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or					X

Inorganic Data Validation Checklist

	YES		NO		NA
coefficient of Variation (CV) for concentrations greater than CRDL?					
Were dilutions analyzed for samples with analytical spike recovery less than 40%?					X
Is analytical spike recovery outside the control limits (85-115%) for any sample?					X

Form VIII (Method of Standard Addition Results)					
Present?					X
If no, is any Form I result coded with "S" or "+"?					X
Was MSA required for any sample but not performed?					X
Is the coefficient of correlation for MSA less than 0.995 for any sample?					X
Is the coefficient of correlation for MSA less than 0.990 for any sample?					X
Was proper quantitation procedure followed?					X

Dissolved/Total for Inorganic/Total Analytes					
Were any analyses performed for dissolved as well as total analytes on the same sample.					X
Is the concentration of any dissolved analyte greater than its total concentration by more than 10%? (if >CRDL)					X
Is the concentration of any dissolved analyte greater than its total concentration by more than 50%?					X

Field Blank					
Is the field blank concentration less than CRDL (or 2xIDL when IDL>CRDL) for all analytes?					X
If no, was field blank value already rejected due to other QC criteria?					X

Form X, XI, XII (Verification of Instrumental Parameters)					
Is verification report present for :					
Instrument Detection Limits (quarterly)?	X				
ICP Interelement Correlation Factors (annually)?	X				
ICP Linear Ranges (quarterly)?	X				
Is IDL greater than CRDL for any analyte?			X		
If yes, are the concentrations of the samples analyzed on the instrument whose IDL exceeds CRDL, greater than 5xIDL.					X
Was any sample result higher than the linear range of ICP.			X		
Was any sample result higher than the highest calibration standard for non-ICP parameters?			X		
If yes for any of the above, was the sample diluted to obtain the result on Form I?					X

Percent Solids					
Are the percent solids in soil/sediment(s):					
< 50%?			X		
< 10%?			X		

Corrected Sample Analysis Data Sheets

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541884

OU4-SS-02-COMP1(0-1) Soil Sample

RAL DePue Site
Collected:06/02/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 06/30/2005 at 15:20
Discard: 07/31/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

O2101 SDG#: DPU03-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
06935	Arsenic	7440-38-2	9.03	1.10	mg/kg	1
00111	Moisture Code 086	n.a.	9.1	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	6.5	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	06/14/2005 07:22	Joanne M Gates	1
00111	Moisture Code 086	EPA 160.3 modified	1	06/13/2005 17:48	Scott W Freisher	1
00394	pH Code 067	SW-846 9045C (modified)	1	06/14/2005 01:45	Daniel S Smith	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	06/13/2005 20:00	Annamaria Stipkovits	1

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Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541885

OU4-SS-02-COMP1(1-6) Soil Sample

RAL DePue Site
Collected:06/02/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 06/30/2005 at 15:20
Discard: 07/31/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

02116 SDG#: DPU03-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
00159	Mercury	7439-97-6	0.165	0.107	mg/kg	1
01643	Aluminum	7429-90-5	13,700.	21.3	mg/kg	1
01650	Calcium	7440-70-2	15,700. J	32.0	mg/kg	1
01654	Iron	7439-89-6	25,700. J	21.3	mg/kg	1
01657	Magnesium	7439-95-4	10,300.	26.7	mg/kg	1
01662	Potassium	7440-09-7	1,990. J	53.3	mg/kg	1
01667	Sodium	7440-23-5	301. J	107.	mg/kg	1
06925	Thallium	7440-28-0	2.07	1.07	mg/kg	1
06935	Arsenic	7440-38-2	16.0	1.07	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.07	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.40	mg/kg	1
06946	Barium	7440-39-3	3,190. J	10.7	mg/kg	5
06947	Beryllium	7440-41-7	0.925	0.320	mg/kg	1
06949	Cadmium	7440-43-9	38.3 J	2.13	mg/kg	1
06951	Chromium	7440-47-3	23.2	4.26	mg/kg	1
06952	Cobalt	7440-48-4	8.58	5.33	mg/kg	1
06953	Copper	7440-50-8	60.2 J	4.26	mg/kg	1
06955	Lead	7439-92-1	527.	10.7	mg/kg	1
06958	Manganese	7439-96-5	745.	2.13	mg/kg	1
06961	Nickel	7440-02-0	23.4	5.33	mg/kg	1
06966	Silver	7440-22-4	1.48 J	2.13	mg/kg	1
06971	Vanadium	7440-62-2	41.6	2.13	mg/kg	1
06972	Zinc	7440-66-6	3,380.	10.7	mg/kg	1
00111	Moisture Code 086	n.a.	6.2	0.50	%	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

00394	pH Code 067	n.a.	7.1	0.010	Std. Units	1

The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	[illegible]	Dilution Factor

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Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Report

Lancaster Laboratories

Lancaster Laboratories Sample No. SW 4541886

OU4-SS-02-COMP1(6-12) Soil Sample

RAL DePue Site
Collected:06/02/2005

Account Number: 11594

Submitted: 06/10/2005 08:55
Reported: 06/30/2005 at 15:20
Discard: 07/31/2005

Blasland, Bouck & Lee
6723 Towpath Road, Box 66
Syracuse NY 13214-0066

02161 SDG#: DPU03-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Units	Dilution Factor
00159	Mercury	7439-97-6	0.0699 J	0.108	mg/kg	1
01643	Aluminum	7429-90-5	12,200.	21.6	mg/kg	1
01650	Calcium	7440-70-2	11,900. J	32.3	mg/kg	1
01654	Iron	7439-89-6	30,700. J	21.6	mg/kg	1
01657	Magnesium	7439-95-4	6,260.	26.9	mg/kg	1
01662	Potassium	7440-09-7	1,890. J	53.9	mg/kg	1
01667	Sodium	7440-23-5	346. J	108.	mg/kg	1
06925	Thallium	7440-28-0	2.33	1.08	mg/kg	1
06935	Arsenic	7440-38-2	12.4	1.08	mg/kg	1
06936	Selenium	7782-49-2	N.D.	1.08	mg/kg	1
06944	Antimony	7440-36-0	N.D.	6.47	mg/kg	1
06946	Barium	7440-39-3	511. J	10.8	mg/kg	1
06947	Beryllium	7440-41-7	1.30	0.323	mg/kg	1
06949	Cadmium	7440-43-9	7.51 J	2.16	mg/kg	1
06951	Chromium	7440-47-3	20.6	4.31	mg/kg	1
06952	Cobalt	7440-48-4	8.46	5.39	mg/kg	1
06953	Copper	7440-50-8	30.2 J	4.31	mg/kg	1
06955	Lead	7439-92-1	117.	10.8	mg/kg	1
06958	Manganese	7439-96-5	658.	2.16	mg/kg	1
06961	Nickel	7440-02-0	22.7	5.39	mg/kg	1
06966	Silver	7440-22-4	0.409 J	2.16	mg/kg	1
06971	Vanadium	7440-62-2	33.9	2.16	mg/kg	1
06972	Zinc	7440-66-6	1,140.	10.8	mg/kg	1
00111	Moisture Code 086	n.a.	7.2	0.50	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					
00394	pH Code 067	n.a.	7.3	0.010	Std. Units	1
	The pH was performed on a 1:1 slurry (25 gms. of sample and 25 ml. of deionized water) after being tumbled for 30 min.					

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst		Dilution Factor

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