

# Memo



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**Date:** December 5, 2023  
**Subject:** Background Soil Screening Criteria for the Former DuPont Barksdale Works Facility  
BRRTS Nos. 02-04-000156 and 02-04-550402; FID No. 804009140

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The purpose of this technical memorandum is to identify background levels for The Chemours Company, FC, LLC (Chemours), formerly E.I. du Pont de Nemours and Company (DuPont), Former Barksdale Works Facility (Barksdale Works) in Barksdale, Wisconsin (see Figure 1). Background levels of metals will be used in combination with site-specific direct contact residual contaminant levels (RCLs) to evaluate analytical data from the recreational portion of the site in order to identify areas where no further investigation is required, areas suitable for closure, and constituents of potential concern (COPCs). This document accompanies the *Derivation of Site-Specific Soil Residual Contaminants for the Former DuPont Barksdale Works Facility* report submitted separately (PIONEER 2023).

## Introduction

The following sections describe the process used to determine background soil concentrations of inorganic constituents. Inorganic constituents are naturally present in soil at Barksdale Works. In addition, some inorganic constituents may be present at the Barksdale Works as a result of manufacturing-related activities. Therefore, representative background soil quality was established in order to evaluate inorganic constituent concentrations. These background concentrations will be used to eliminate sampling results from further consideration if the site characterization results are below the background values. Wisconsin Administrative Code NR 720.07(3) allows for a background concentration to be used as the RCL for the direct contact pathway for a substance if the background concentration is higher than the RCL.

## Background Evaluation

The data used to determine background levels of inorganic constituents were obtained from undisturbed areas at the Barksdale Works. These areas met the requirements presented in Wisconsin Administrative Code NR 700.03(2) and are consistent with WDNR guidance (WDNR 2005). Specifically, the samples that were used to represent background concentrations were collected from areas that had not been impacted by manufacturing related activities, as indicated by historical records and visual inspections. The soil in the vicinity of these samples, for instance, did not contain visible industrial contaminants, nor was it in the former building footprints, transportation corridors (i.e., roads, railroads, and parking lots), or areas used for burning, dumping etc. Samples from the following areas were used in the derivation of background concentrations (see Figure 2):

- UAA
- UAC
- UAN
- UAO

- UAP

### ***Outlier Evaluation***

The analytical results from six background soil samples were excluded from the evaluation as the results were not considered to be representative of background due to elevated concentrations of some metals. The results from these six samples are provided near the end of Table 1.

### ***Summary of Background Data***

The data set used for calculation of background concentrations consisted of several hundred samples that were obtained from surface soil collected from between zero and two feet below ground surface, which is consistent with the depth of on-site soil used to evaluate potential exposures associated with site use. The depth of the background soil samples is also consistent with Wisconsin Administrative Code NR 700.03(2), which states that background soil samples should be collected “. . . at a depth comparable to the area to be remediated, in the same soil layer and in an area unaffected by hazardous substances discharges or the discharge of pollutants.” Table 1 provides a complete list of samples used for the derivation of background values.

### ***Determination of Background Concentrations***

Maximum concentrations were determined to be representative as they were carefully selected to eliminate the potential for any site-related impacts and were from a robust dataset (see Table 1). The maximum concentrations were considered in combination with the state assigned Background Threshold Values listed in the WDNR NR 720 RR Soil RCL Worksheets, as shown in Table 2. The larger of the constituent-specific maximum concentration and the WDNR Background Threshold Value will be used for evaluating metals (WDNR 2018).

### **References**

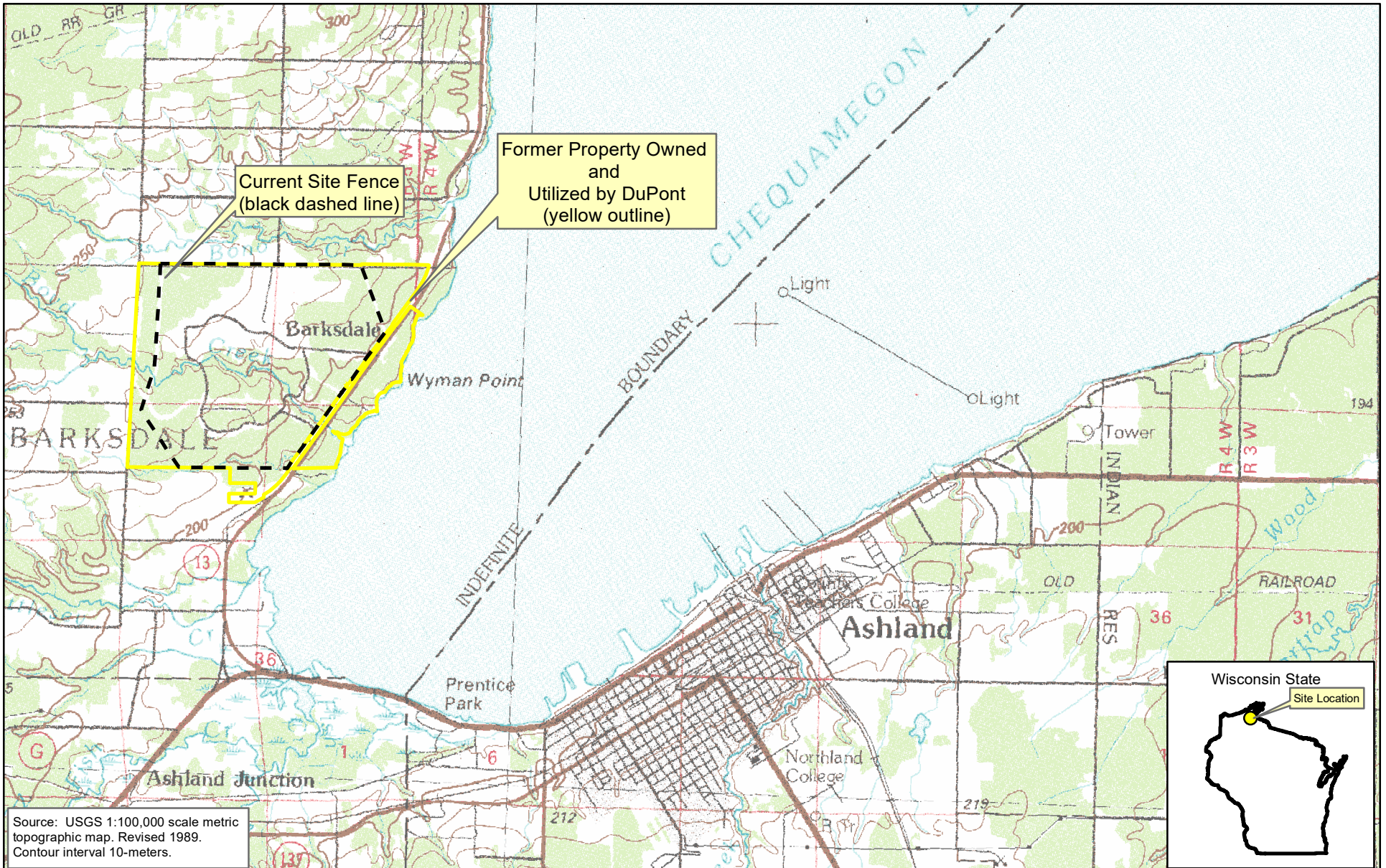
- PIONEER. 2023. Derivation of Site-Specific Soil Residual Contaminants for the Former DuPont Barksdale Works Facility, Barksdale, Wisconsin.
- WDNR. 2005. Guidance for Determining Soil Contaminant Background Levels at Remediation Sites. Bureau for Remediation and Redevelopment. PUB-RR-721
- WDNR. 2018. *NR 720 RR Soil RCL Worksheets*. Remediation and Redevelopment Program.

### **Enclosures**

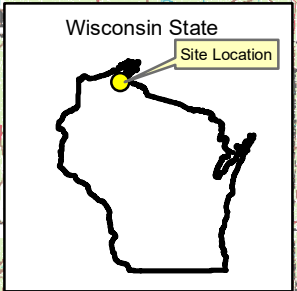
Figure 1	Site Location
Figure 2	Background Areas and Sample Locations Used for Background Concentration Derivation
Table 1	Background Sample Constituent Concentrations
Table 2	Final Background Concentrations

# Figures

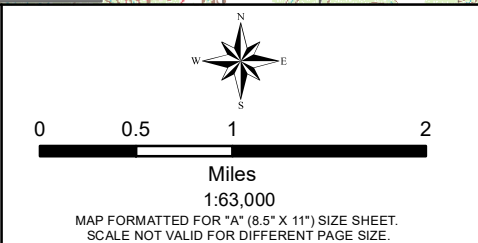
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Source: USGS 1:100,000 scale metric topographic map. Revised 1989. Contour interval 10-meters.



Area Map (Optional)

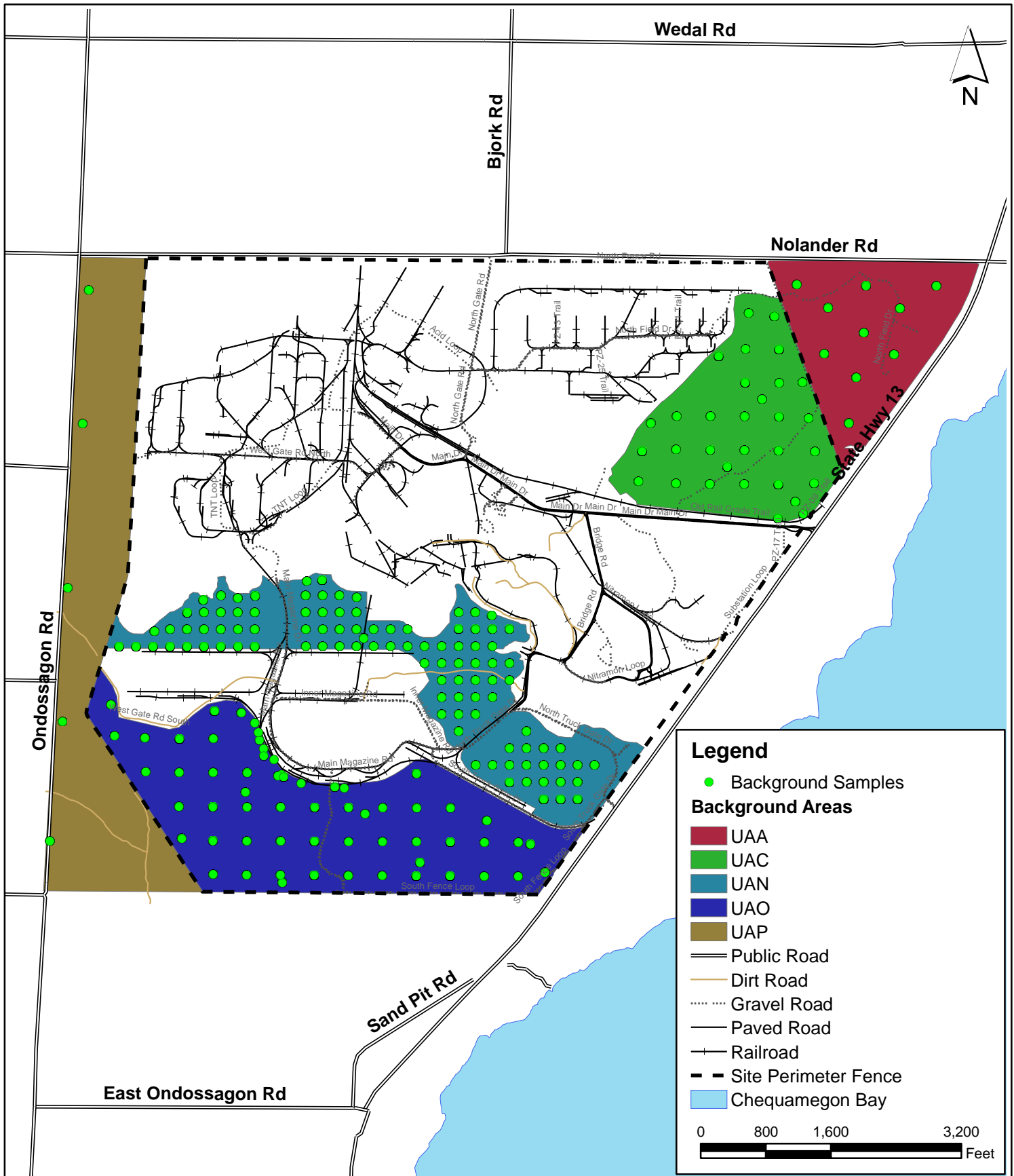


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**Site Location**  
 Background Soil Screening Criteria  
 Former DuPont Barksdale Works  
 Barksdale, Wisconsin 54806

PROJECT NUMBER:  
 60660855  
 DATE:  
 Dec 2023  
 FIGURE NUMBER:  
 1



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Title:  
 Background Areas and Sample Locations  
 Used for Background Concentration Derivation  
 Background Soil Screening Criteria  
 Former DuPont Barksdale Works Facility  
 Barksdale, Wisconsin

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# Tables

**Table 1: Background Sample Constituent Concentrations (mg/kg)**

Sample Number	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (inorganic)	Nickel (soluble salts)	Selenium (and compounds)	Silver	Thallium	Tin	Vanadium	Zinc (and compounds)
BAR-S-SAD003(0-2)_8/18/2006	0.47 U	3.0	103	0.55 J	0.051 U	32.1 J	7.8	30	8.8	0.029 J	20	1.1 U	0.2 U	3.5	2.4 U	42	34.3 J
BAR-S-SSI05-SB060_7/7/2005	0.75 J	1.8 J	95.3 J	0.56 J	0.033 U	27	11	24.2 J	10 J	0.043 J	20	0.54 J	0.64 U	0.12 J	1.9 J	46	58.9 J
BAR-S-SSI05-SB077_7/10/2005	0.48 U	2.2 J	146 J	0.83	0.032 U	36	8.7	21.7 J	9.7 J	0.026 J	25	0.57 J	0.61 U	0.20	2.7 J	46	37.8 J
BAR-S-SSI05-SB078_7/10/2005	0.47 U	2 J	171 L	1.2	0.031 U	36	12	28	7.2 J	0.022 J	31	0.72 J	0.59 U	0.17	5.2 B	49	45
BAR-S-SSI05-SB080_7/10/2005	0.47 U	1.7 J	103 L	0.51 J	0.031 U	37	9.2	22	7.9 J	0.017 J	25	0.39 J	0.59 U	0.14	4 B	53	44
BAR-S-SSI05-SB081_7/10/2005	0.47 U	2.3 J	117 L	0.79	0.031 U	31	9.6	23	7.3 J	0.02 J	26	0.73 J	0.59 U	0.17	3.4 B	46	42
BAR-S-SSI05-SB082_7/10/2005	0.48 U	2.3 J	156 J	0.99	0.032 U	36	10	28.7 J	8.1 J	0.02 J	30	0.88 J	0.61 U	0.18	1.6 J	47	41.2 J
BAR-S-SSI05-SB083_7/11/2005	0.46 U	1.5 J	88.9 J	0.49 J	0.03 U	32	9.2	18.2 J	6.9 J	0.016 J	23	0.53 J	0.58 U	0.14	1.9 J	52	38 J
BAR-S-SSI05-SB088_7/11/2005	0.47 U	2.6 J	144	1.2	0.031 U	34	8.5	22	8.8 J	0.012 J	24	0.86 J	0.59 U	0.18 J	3.1 B	45	40
BAR-S-SSI05-SB089_7/11/2005	0.48 U	3 J	102	0.86	0.032 U	34	9.1	16	9.2 J	0.015 J	23	0.77 J	0.61 U	0.2 J	2.7 B	52	40
BAR-S-SSI05-SB090_7/11/2005	0.52 U	2.8 J	174	1.3	0.034 U	40	9.5	26	11.3 J	0.012 J	26	0.82 J	0.65 U	0.25 J	3.2 B	52	39
BAR-S-SSI05-SB091_7/11/2005	0.49 U	2.6 J	113	0.94	0.032 U	36	9.5	19	7.4 J	0.017 J	25	0.68 J	0.62 U	0.16 J	3.1 B	49	41
BAR-S-SSI05-SB092_7/11/2005	0.48 U	1.9 J	110	0.97	0.032 U	29	9.4	19	8.8 J	0.014 J	21	0.57 J	0.61 U	0.21 J	2.3 B	42	43
BAR-S-SSI05-SB093_7/11/2005	0.48 U	2.8 J	139	1.2	0.032 U	38	11	22	8.7 J	0.017 J	26	0.69 J	0.61 U	0.18 J	3.3 B	49	50
BAR-S-SSI05-SB094_7/11/2005	0.47 U	1.5 J	136	1.1	0.031 U	33	10	22	6 J	0.015 J	25	0.3 J	0.59 U	0.11 J	2.9 B	47	40
BAR-S-SSI05-SB097_7/11/2005	0.48 U	2.2 J	118	0.97	0.031 U	35	11	20	7.6 J	0.0091 J	24	0.43 J	0.6 U	0.17 J	2.9 B	52	42
BAR-S-SSI05-SB098_7/11/2005	0.48 U	2.8 J	110	0.92	0.032 U	33	10	17	8.2 J	0.011 J	23	0.73 J	0.61 U	0.19 J	2.8 B	48	46
BAR-S-SSI05-SB099_7/11/2005	0.48 U	2.6 J	107	0.89	0.031 U	32	9.9	16	10.5 J	0.016 J	22	0.65 J	0.6 U	0.27 J	2.6 B	46	45
BAR-S-SSI05-SB100_7/11/2005	0.47 U	2.2 J	140	1.1	0.031 U	34	9.7	24	7.7 J	0.019 J	25	0.63 J	0.59 U	0.2 J	2.8 B	43	37
BAR-S-SSI05-SB101_7/11/2005	0.47 U	2.4 J	119	1.0	0.031 U	33	9.2	22	7.5 J	0.016 J	23	0.69 J	0.6 U	0.19 J	3.1 B	42	34
BAR-S-SSI05-SB102_7/11/2005	0.47 U	2.5 J	155	1.4	0.031 U	36	15	27	8.7 J	0.017 J	28	0.99 J	0.6 U	0.2 J	2.8 B	50	42
BAR-S-SSI05-SB103_7/11/2005-AVE	0.47 U	2.2	96	0.79	0.10	32	9.6	17	7.3	0.018	21	0.53	0.59 U	0.15	2.6	51	43
BAR-S-SSI05-SB104_7/11/2005	0.45 U	2.1 J	114	0.78	0.081 J	29	8.6	21	9.1 J	0.019 J	21	0.47 J	0.56 U	0.2 J	2.3 B	42	37
BAR-S-SSI05-SB107_7/11/2005	0.5 U	2.3 J	144	1.2	0.19 J	37 L	11	27	8.5	0.013 J	28	0.85 J	0.63 U	0.20	3.3 J	52.9 L	46
BAR-S-SSI05-SB108_7/11/2005	0.42 U	2.2 J	103	0.84	0.12 J	31.5 L	7.6	19	8.0	0.013 J	21	0.44 J	0.52 U	0.17	2.8 J	42.9 L	36
BAR-S-SSI05-SB109_7/11/2005	0.48 U	2.3 J	110	0.94	0.19 J	34.2 L	9.4	21	8.6	0.019 J	24	0.53 J	0.61 U	0.20	3.2 J	42.6 L	40
BAR-S-SSI05-SB110_7/11/2005	0.49 U	2.7 J	111	0.94	0.2 J	32.7 L	12	20	9.0	0.019 J	23	1.1 J	0.62 U	0.18	3.1 J	52.8 L	40
BAR-S-SSI05-SB141_7/12/2005	0.45 U	2.4 J	124	1.0	0.029 U	33	8.3	24	7 J	0.013 J	25	0.57 J	0.56 U	0.15	2.8 B	42	38.8 J
BAR-S-SSI05-SB142_7/12/2005	0.45 U	2.7 J	108	0.81	0.03 U	30	9.0	24	6.4 J	0.019 J	23	0.6 J	0.57 U	0.14	2.2 B	42	35 J
BAR-S-SSI05-SB150_7/6/2005	0.5 J	2.4 J	76	0.59 J	0.031 U	32	9.2	17	7.8 J	0.019 J	21	0.63 J	0.6 U	0.18	2.3 B	44	47
BAR-S-SSI05-SB151_7/6/2005	0.69 J	2.1 J	122	1.0	0.032 U	36	12	22	7.3 J	0.013 J	26	0.78 J	0.61 U	0.18	2.7 B	48	42
BAR-S-SSI05-SB152_7/6/2005	0.5 J	2 J	113	0.97	0.03 U	33	9.8	20	6.7 J	0.016 J	26	0.64 J	0.59 U	0.16	2.4 B	44	36
BAR-S-SSI05-SB153_7/6/2005	0.47 U	2 J	108	0.81	0.031 U	33	8.5	18	7.3 J	0.02 J	22	0.5 J	0.59 U	0.17	2.7 B	45	38
BAR-S-SSI05-SB154_7/6/2005	0.47 U	2.3 J	118	0.92	0.031 U	32	9.3	21	9.7 J	0.017 J	22	0.45 J	0.59 U	0.21	2.6 B	48	38
BAR-S-SSI05-SB161_7/6/2005	0.48 U	2.1 J	113	1.2 J	0.29 J	35	9.4	21	9 J	0.0074 J	24	0.38 J	0.61 U	0.21	2.4 J	47	49
BAR-S-SSI05-SB162_7/6/2005-AVE	0.49 U	2.2	128	1.5	0.30	37	11	27	8.7	0.016	27	0.55	0.61 U	0.21	2.9	57	43
BAR-S-SSI05-SB163_7/6/2005	0.48 U	1.7 J	116	1.3 J	0.31 J	38	12	23	8.2 J	0.015 J	25	0.37 J	0.61 U	0.19	2.5 J	52	46
BAR-S-SSI05-SB164_7/6/2005	0.48 U	2.1 J	112	1.2 J	0.35 J	39	9.3	22	10.7 J	0.015 J	25	0.4 J	0.61 U	0.25	2.2 J	53	46
BAR-S-SSI05-SB165_7/6/2005	0.53 U	2.4 J	184	1.9 J	0.49 J	47	11	29	10.3 J	0.0079 J	35	0.42 J	0.67 U	0.23	2.9 J	53	54
BAR-S-SSI05-SB166_7/6/2005	0.51 U	2.2 J	150	1.6 J	0.42 J	44	15	30	9 J	0.012 J	31	0.35 J	0.64 U	0.20	3.2 J	54	52
BAR-S-SSI05-SB167_7/6/2005	0.52 U	2.1 J	152	1.7 J	0.39 J	43	12	26	8.1 J	0.009 J	32	0.37 J	0.66 U	0.20	3 J	52	49
BAR-S-SSI05-SB168_7/6/2005	0.5 U	2 J	102	1.3 J	0.33 J	36	11	21	7.8 J	0.02 J	27	0.38 J	0.63 U	0.19	2.4 J	47	48

**Table 1: Background Sample Constituent Concentrations (mg/kg)**

Sample Number	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (inorganic)	Nickel (soluble salts)	Selenium (and compounds)	Silver	Thallium	Tin	Vanadium	Zinc (and compounds)
BAR-S-SSI05-SB169_7/6/2005	0.57 U	2.3 J	122	1.4 J	0.33 J	41	9.3	24	8.2 J	0.012 J	26	0.34 J	0.72 U	0.19	3.3 J	45	40
BAR-S-SSI05-SB176_7/7/2005	0.46 U	2 J	81	1.1 J	0.32 J	28	7.4	18	7.5 J	0.016 J	20	0.35 J	0.59 U	0.17	2.4 J	36	35
BAR-S-SSI05-SB177_7/6/2005	0.5 U	2 J	80	1 J	0.27 J	28	9.4	15	8.2 J	0.019 J	19	0.4 J	0.63 U	0.19	2.2 J	39	36
BAR-S-SSI05-SB178_7/6/2005	0.47 U	1.8 J	185	2.2 J	0.51 J	44	15	30	7.4 J	0.0093 J	37	0.35 J	0.6 U	0.17	2.8 J	52	44
BAR-S-SSI05-SB179_7/7/2005	0.46 U	2 J	110	1.2 J	0.35 J	33	8.6	21	7.2 J	0.0097 J	24	0.51 J	0.58 U	0.18	2.5 J	41	40
BAR-S-SSI05-SB182_7/7/2005	0.47 U	1.9 J	116 J	1.1 J	0.51 J	39	11	22.9 J	8.5	0.017 J	27	1 J	0.59 U	0.17	3.4 B	54	54.5 J
BAR-S-SSI05-SB183_7/7/2005	0.47 U	2 J	99.7 J	1.1 J	0.43 J	40	8.2	21.5 J	8.5	0.017 J	22	1 J	0.6 U	0.20	3.2 B	60	37.5 J
BAR-S-SSI05-SB190_7/7/2005	0.48 U	1.6 J	99.6 J	0.99 J	0.3 J	35	8.0	19 J	10.0	0.016 J	21	0.58 J	0.61 U	0.22	2.9 B	47	34.5 J
BAR-S-SSI05-SB191_7/7/2005	0.47 U	1.8 J	81.3 J	0.89 J	0.26 J	29	20	16 J	8.0	0.0098 J	19	0.61 J	0.6 U	0.17	3 B	43	36.5 J
BAR-S-SSI05-SB194_7/7/2005	0.49 U	1.7 J	105 J	1.1 J	0.25 J	28	7.7	19.5 J	11	0.027 J	22	1 J	0.62 U	0.22	2.2 B	36	34.2 J
BAR-S-SSI05-SB195_7/7/2005	0.51 U	1.9 J	82.3 J	0.83 J	0.28 J	27	7.4	18 J	9.5	0.014 J	19	0.78 J	0.64 U	0.18	2.3 B	37	51.9 J
BAR-S-SSI05-SB201_7/11/2005	0.54 J	2.4	82	0.57 J	0.3 J	24	9.5	17	10	0.019 J	17	0.58 J	0.58 U	0.16	3.4 B	40	54
BAR-S-SSI05-SB202_7/11/2005	0.51 J	2.1	104	0.90	0.33 J	29	7.7	22	8.7	0.014 J	23	0.65 J	0.57 U	0.17	3.4 B	39	48
BAR-S-SSI05-SB205_7/11/2005-AVE	0.45 U	2.3	120	1.0	0.45	34	7.5	23	7.8	0.017	24	0.79	0.57 U	0.16	3.1	42	37
BAR-S-SSI05-SB206_7/11/2005	0.45 U	2.0	95	0.60	0.55 J	28	8.6	18	8.9	0.02 J	20	0.46 J	0.57 U	0.14	3.4 B	42	46
BAR-S-SSI05-SB207_7/11/2005	0.45 U	1.7	75	0.54 J	0.43 J	22	9.9	16	6.9	0.018 J	19	0.48 J	0.56 U	0.14	2.6 B	34	34
BAR-S-SSI05-SB208_7/12/2005	0.46 U	1.9	138	1.2	0.62	33	8.5	27	6.6	0.018 J	26	0.51 J	0.58 U	0.14	2.8 B	40	38
BAR-S-SSI05-SB209_7/12/2005	0.45 U	2.2	96	0.62	0.53 J	29	8.6	19	6.7	0.017 J	22	0.61 J	0.56 U	0.14	2.9 B	41	41
BAR-S-SSI05-SB210_7/12/2005	0.45 U	1.7	107	0.73	0.58 J	35	9.0	24	7.2	0.021 J	23	0.5 J	0.57 U	0.12	2.4 B	45	40
BAR-S-SSI05-SB211_7/11/2005	0.45 U	2.2	77	0.60	0.47 J	32	8.0	17	7.3	0.015 J	21	0.6 J	0.57 U	0.15	2.3 B	43	38
BAR-S-SSI05-SB212_7/11/2005	0.46 U	2.2	87	0.68	0.42 J	26	7.1	18	7.0	0.017 J	19	0.69 J	0.58 U	0.14	2.3 B	37	33
BAR-S-SSI05-SB213_7/11/2005	0.44 U	2.0	60	0.42 J	0.46 J	19	6.7	12	7.5	0.025 J	13	0.62 J	0.56 U	0.17	2.5 B	38	30
BAR-S-SSI05-SB214_7/11/2005	0.46 J	1.3	109	0.73	0.72	28	7.9	22	5.2	0.019 J	23	0.37 J	0.56 U	0.097 J	3 B	39	36
BAR-S-SSI05-SB215_7/12/2005	0.61 J	2.1	86	0.67	0.46 J	24	6.9	18	7.1	0.012 J	18	0.52 J	0.56 U	0.13	2.4 B	33	30
BAR-S-SSI05-SB216_7/12/2005	0.44 U	1.7	31	0.2 J	0.25 J	10	2.7	6.4	5.5	0.0083 J	7.5	0.37 J	0.55 U	0.11 J	1.3 B	28	15
BAR-S-SSI05-SB217_7/12/2005	0.44 U	1.3	43	0.3 J	0.25 J	15	3.8	8.9	4.5	0.0096 J	9.9	0.35 J	0.55 U	0.091 J	1.4 B	21	21
BAR-S-SSI05-SB218_7/12/2005	0.45 U	1.7	70	0.54 J	0.5 J	33	13	19	6.7	0.012 J	21	0.54 J	0.57 U	0.14	2.6 B	44	33
BAR-S-SSI05-SB219_7/12/2005	0.45 U	2.0	69	0.49 J	0.58 J	42	10	19	7.8	0.014 J	24	0.6 J	0.57 U	0.16	2.8 B	52	41
BAR-S-SSI05-SB220_7/12/2005	0.44 U	1.8	74	0.54 J	0.43 J	25	6.5	16	6.5	0.012 J	19	0.48 J	0.56 U	0.13	2.2 B	33	33
BAR-S-SSI05-SB221_7/12/2005	0.47 U	1.7 J	47	0.4 J	0.29 J	16	4.8	11	6.5	0.0072 J	12	0.27 J	0.59 U	0.16	6.9 B	32	21.2 J
BAR-S-SSI05-SB222_7/12/2005	0.54 J	1.8 J	72	0.61 J	0.37 J	26	7.8	16	6.7	0.0062 J	17	0.32 J	0.61 U	0.17	7 B	40	32 J
BAR-S-SSI05-SB223_7/12/2005	0.46 U	1.5 J	79	0.64	0.55 J	27	11	16	7.6	0.014 J	18	0.29 J	0.59 U	0.16	8.6 B	38	44 J
BAR-S-SSI05-SB224_7/12/2005-AVE	0.44 U	1.4	64	0.57	0.38	23	6.1	13	7.4	0.0096	15	0.26	0.56 U	0.12	5.2	33	31
BAR-S-SSI05-SB225_7/12/2005	0.45 U	1.3 J	67	0.73	0.33 J	22	6.4	17	4.9	0.0073 J	17	0.24 J	0.57 U	0.11 J	6.9 B	33	27.4 J
BAR-S-SSI05-SB226_7/12/2005	0.44 U	1.7 J	88	0.82	0.51 J	28	7.6	21	6.6	0.01 J	21	0.28 J	0.55 U	0.15	7.6 B	39	36.1 J
BAR-S-SSI05-SB227_7/12/2005	0.44 U	1.5 J	68	0.57 J	0.44 J	24	6.5	15	6.8	0.0083 J	17	0.26 J	0.56 U	0.14	7 B	35	32.8 J
BAR-S-SSI05-SB229_7/12/2005	0.46 U	1.9 J	54	0.45 J	0.31 J	28	6.7	17	7.1	0.0084 J	14	0.3 J	0.58 U	0.16	8.7 B	46	27.6 J
BAR-S-SSI05-SB230_7/12/2005	0.48 J	1.5 J	50	0.4 J	0.4 J	25	6.9	12	5.5	0.0055 U	14	0.27 J	0.56 U	0.12	10.5 B	33	25.1 J
BAR-S-SSI05-SB234_7/13/2005	0.45 U	2.1 J	73	0.67	0.34 J	25	6.9	16	8.9	0.01 J	18	0.31 J	0.57 U	0.17	10.8 B	35	34.5 J
BAR-S-SSI05-SB235_7/13/2005	0.45 U	1.1 J	53	0.5 J	0.19 J	18	5.4	11	5.2	0.0089 J	13	0.22 J	0.57 U	0.11 J	7.3 B	31	30.7 J
BAR-S-SSI05-SB236_7/12/2005	0.44 U	1.6 J	101	0.88	0.35 J	28	8.3	20	6.3	0.01 J	23	0.3 J	0.56 U	0.14	6.9 B	40	35.4 J



**Table 1: Background Sample Constituent Concentrations (mg/kg)**

Sample Number	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (inorganic)	Nickel (soluble salts)	Selenium (and compounds)	Silver	Thallium	Tin	Vanadium	Zinc (and compounds)
BAR-S-SSI05-SB258_7/14/2005	0.46 U	1.8 J	109	1.1 B	0.33 J	33	8.5	21	5.8 J	0.028 J	23	0.41 J	0.58 U	0.099 J	2.4 B	41	37.5 J
BAR-S-SSI05-SB266_7/9/2005	0.48 U	2.5 J	116 L	1.1	0.4 J	40.1 L	11	23	8.6 J	0.024 J	28	0.78 J	0.61 U	0.22	3.1 B	55 L	57
BAR-S-SSI05-SB267_7/9/2005	0.48 U	2.2 J	90.8 L	0.98	0.39 J	31.9 L	8.9	18	7.3 J	0.01 J	22	0.71 J	0.61 U	0.21	3 B	44.3 L	74
BAR-S-SSI05-SB268_7/9/2005	0.46 U	2.3 J	142 L	1.7	0.33 J	37.2 L	14	25	6.5 J	0.011 J	36	0.72 J	0.59 U	0.16	2.7 B	48.5 L	58
BAR-S-SSI05-SB269_7/9/2005	0.47 U	2.2 J	121 L	1.3	0.25 J	34.5 L	8.7	20	6.8 J	0.01 J	25	0.61 J	0.59 U	0.16	2.6 B	42.7 L	41
BAR-S-SSI05-SB270_7/13/2005	0.46 U	2 J	78.8 L	0.92	0.21 J	27 L	7.3	16	8.2 J	0.0098 J	19	0.51 J	0.59 U	0.16	2.3 B	37.8 L	39
BAR-S-SSI05-SB286_7/14/2005	0.47 U	2.3	111	1.0	0.29 J	32	11	22	9.1 J	0.006 J	22	0.48 J	0.59 U	0.18 J	2.5 B	41	35
BAR-S-SSI05-SB287_7/14/2005	0.46 U	3.2	69	0.77	0.16 J	21	5.6	13	11.8 J	0.037 J	12	0.57 J	0.59 U	0.15 J	1.9 B	41	25
BAR-S-SSI05-SB288_7/14/2005	0.45 U	1.3	28	0.37 J	0.071 J	9.7	2.4	5.1	4.5 J	0.021 J	4.9	0.32 J	0.57 U	0.055 J	2.2 B	25	12
BAR-S-SSI05-SB293_7/22/2005	0.44 U	1.2	20	0.27 J	0.057 J	7.0	1.5	3.3	4.4 J	0.025 J	4.8	0.25 J	0.55 U	0.099 J	0.99 U	16	9.5
BAR-S-SSI05-SB294_7/22/2005	0.45 U	0.85	20	0.27 J	0.041 J	6.3	1.8	3.9	3.8 J	0.01 J	4.4 J	0.22 J	0.57 U	0.057 J	1.2 B	13	10
BAR-S-SSI05-SB304_7/22/2005	0.45 U	1.3 J	67	0.53 J	0.072 J	32	7.5	18	5.3 J	0.0085 J	20	0.49 J	0.57 U	0.11 J	2.7 B	41	34
BAR-S-SSI05-SB305_7/22/2005	0.47 U	1.3 J	23	0.18 U	0.031 U	8.3	3.0	3.3	5.4 J	0.015 J	5.1	0.26 J	0.59 U	0.077 J	1.4 B	18	14
BAR-S-SSI05-SB306_7/22/2005	0.46 U	0.89 J	22	0.18 U	0.03 U	20	2.5	3.5	4.5 J	0.0091 J	7.2	0.27 J	0.58 U	0.067 J	1.5 B	16	15
BAR-S-SSI05-SB307_7/22/2005	0.44 U	1.2 J	56	0.36 J	0.029 U	13	4.0	9.4	3 J	0.0055 U	12	0.18 J	0.56 U	0.028 J	2.1 B	20	20
BAR-S-SSI05-SB308_7/22/2005	0.43 U	0.8 J	36	0.22 J	0.029 U	13	3.2	7.2	3.2 J	0.017 J	8.6	0.24 J	0.55 U	0.041 J	2 B	20	18
BAR-S-SSI05-SB309_7/22/2005	0.46 U	1.8 J	97	0.84	0.051 J	33	9.4	20	7.9 J	0.015 J	23	1 J	0.58 U	0.2 J	2.8 B	45	41
BAR-S-SSI05-SB310_7/22/2005	0.46 U	1.9 J	112	1.1	0.046 J	35	8.0	21	8.3 J	0.012 J	24	0.59 J	0.58 U	0.18 J	2.7 B	48	41
BAR-S-SSI05-SB311_7/22/2005	0.47 U	1.8 J	127	0.94	0.13 J	41	10.0	26	9.7 J	0.012 J	29	0.64 J	0.6 U	0.2 J	3.1 B	53	42
BAR-S-SSI05-SB324_7/23/2005	0.45 U	1.4 J	43	0.39 J	0.083 J	15	3.6	8.9	5.3	0.0065 J	9.8	0.22 J	0.56 U	0.1 J	1.4 J	21	17
BAR-S-SSI05-SB325_7/23/2005	0.45 U	1.3 J	22	0.22 J	0.029 U	7.9	1.7	4.3	5.6	0.0055 U	4.8	0.18 J	0.56 U	0.11 J	1.5 J	14	11
BAR-S-SSI05-SB326_7/23/2005	0.47 U	1.6 J	108	0.79	0.18 J	22	6.4	16	7.3	0.017 J	17	0.37 J	0.6 U	0.17	1.9 J	32	28
BAR-S-SSI05-SB327_7/23/2005	0.47 U	2.5 J	116	0.94	0.31 J	33	10	22	10	0.028 J	23	0.36 J	0.59 U	0.26	2.8 J	44	42
BAR-S-SSI05-SB328_7/23/2005	0.46 U	1.5 J	94	0.91	0.33 J	31	33	16	6.5	0.018 J	19	0.32 J	0.58 U	0.14	2.1 J	57	46
BAR-S-SSI05-SB332_7/23/2005	0.46 U	2 J	76	0.72	0.22 J	27	10	16	8.8	0.015 J	18	0.35 J	0.59 U	0.18	1.8 J	41	38
BAR-S-SSI05-SB333_7/23/2005	0.48 U	2.3 J	112	0.87	0.4 J	32	14	19	9.5	0.018 J	20	0.38 J	0.61 U	0.22	2.7 J	49	49
BAR-S-SSI05-SB334_7/23/2005	0.47 U	2.1 J	71	0.57 J	0.24 J	20	7.2	11	7.2	0.028 J	13	0.64 J	0.59 U	0.18	1.9 J	31	36
BAR-S-SSI05-SB341_7/22/2005	0.44 U	1.3 J	110	0.78	0.029 U	26	8.7 J	24	13.9 J	0.026 J	20	0.4 J	0.56 U	0.11 J	2.9 B	39	42
BAR-S-SSI05-SB345_7/15/2005	0.49 U	1.5 J	63	0.37 J	0.032 U	20	5 J	11	8.3 J	0.021 J	14	0.46 J	0.62 U	0.11 J	2.2 B	25	27
BAR-S-SSI05-SB346_7/15/2005	0.45 U	1.2 J	90	0.67	0.03 U	28	6.7 J	16	6.3 J	0.013 J	19	0.33 J	0.57 U	0.096 J	2.5 B	36	40
BAR-S-SSI05-SB347_7/15/2005	0.44 U	1.3 J	51	0.36 J	0.029 U	17	5.4 J	10.0	5.8 J	0.013 J	12	0.41 J	0.56 U	0.089 J	2.2 B	29	27
BAR-S-SSI05-SB348_7/15/2005	0.46 U	1.7 J	80	0.58 J	0.031 U	25	6.3 J	16	7.5 J	0.015 J	16	0.4 J	0.59 U	0.15	2.5 B	32	31
BAR-S-SSI05-SB349_7/15/2005-AVE	0.45 U	1.9	113	0.95	0.03 U	32	9.1	21	9.7	0.015	24	0.51	0.57 U	0.20	3.0	42	37
BAR-S-SSI05-SB350_7/24/2005	0.47 U	2 J	101	0.78	0.031 U	36	10.1 J	21	8.1 J	0.016 J	24	0.81 J	0.59 U	0.18	3.3 B	47	45
BAR-S-SSI05-SB351_7/24/2005	0.47 U	1.9 J	111	0.86	0.031 U	40	23.5 J	24	8.4 J	0.02 J	27	0.53 J	0.59 U	0.16	3.7 B	48	49
BAR-S-SSI05-SB352_7/24/2005	0.46 U	1.7 J	127	0.82	0.031 U	37	9.1 J	26	7.7 J	0.021 J	27	0.55 J	0.59 U	0.17	3.3 B	47	43
BAR-S-SSI05-SB353_7/24/2005	0.46 U	1.9 J	109	0.76	0.031 U	24	8.7 J	17	9.1 J	0.022 J	22	0.3 J	0.59 U	0.20	2.1 B	36	32
BAR-S-SSI05-SB354_7/24/2005	0.45 U	0.5 J	11	0.18 U	0.03 U	4.1	1.5 J	1.6 J	1.3 J	0.0056 U	2.6 J	0.17 B	0.57 U	0.016 J	1.5 B	12	7.1
BAR-S-SSI05-SB356_7/25/2005	0.46 U	0.19 J	6.8	0.18 U	0.03 U	2.6	1 J	1.5 J	0.61 J	0.0057 U	2.3 J	0.12 B	0.58 U	0.0051 J	1.3 B	8.1	6.6
BAR-S-SSI05-SB361_7/25/2005	0.45 U	0.76 J	8.7	0.18 U	0.03 U	4.5	0.94 J	1.7 J	1.4 J	0.0056 U	2.9 J	0.14 J	0.57 U	0.02 J	1.3 B	8.3	8.5 J
BAR-S-SSI05-SB362_7/25/2005	0.44 U	0.2 J	6.8	0.17 U	0.029 U	2.2	0.68 J	1.8 J	0.7 J	0.0054 U	1.9 J	0.08 J	0.56 U	0.0096 J	1.6 B	8.5	5.3 J

**Table 1: Background Sample Constituent Concentrations (mg/kg)**

Sample Number	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (inorganic)	Nickel (soluble salts)	Selenium (and compounds)	Silver	Thallium	Tin	Vanadium	Zinc (and compounds)
BAR-S-SSI05-SB363_7/25/2005	0.47 U	1 J	37	0.22 J	0.031 U	12	3.3	6.0	4.4 J	0.028 J	8.4	0.19 J	0.59 U	0.072 J	1.7 B	19	22.7 J
BAR-S-SSI05-SB364_7/24/2005-AVE	0.46 U	1.8	68	0.42	0.03 U	21	8.1	13	9.1	0.012	15	0.36	0.58 U	0.19	2.3	35	30
BAR-S-SSI05-SB365_7/24/2005	0.46 U	2.1 J	94	0.70	0.03 U	32	7.3	20	8 J	0.013 J	21	0.45 J	0.58 U	0.17 J	3 B	44	33.2 J
BAR-S-SSI05-SB366_7/24/2005	0.46 U	2.2 J	94	0.73	0.03 U	29	9.7	19	9.8 J	0.0081 J	20	0.36 J	0.58 U	0.24 J	2.7 B	44	42.5 J
BAR-S-SSI05-SB367_7/24/2005	0.46 U	2.1 J	44	0.23 J	0.03 U	16	3.4	7.9	5.8 J	0.011 J	9.4	0.33 J	0.58 U	0.12 J	2.4 B	25	58.7 J
BAR-S-SSI05-SB368_7/24/2005	0.45 U	1.7 J	60	0.37 J	0.03 U	20	4.7	11	8.1 J	0.012 J	13	0.23 J	0.57 U	0.16 J	2.4 B	31	24.1 J
BAR-S-SSI05-SB372_7/23/2005	0.46 U	1.3 J	32	0.18 U	0.03 U	10	2.7	6.0	5.9 J	0.0056 U	6.9	0.29 J	0.58 U	0.13 J	1.9 B	18	15.4 J
BAR-S-SSI05-SB373_7/25/2005	0.45 U	1 J	36	0.18 U	0.03 U	12	3.0	7.0	4.6 J	0.0063 J	8.1	0.21 J	0.57 U	0.085 J	2 B	19	17.1 J
BAR-S-SSI05-SB374_7/25/2005	0.45 U	1.2 J	35	0.18 U	0.029 U	12	3.2	7.0	5.2 J	0.011 J	8.0	0.17 J	0.57 U	0.1 J	1.7 B	22	16.8 J
BAR-S-SSI05-SB375_7/25/2005	0.46 U	1.1 J	74	0.42 J	0.03 U	21	5.9	14	6.1 J	0.0056 U	15	0.21 J	0.58 U	0.089 J	2.5 B	32	28 J
BAR-S-SSI05-SB376_7/25/2005	0.47 U	2 J	95	0.65	0.071 J	24	9.6	16	7.9 J	0.01 J	17	0.34 J	0.6 U	0.19 J	2.7 B	39	47.7 J
BAR-S-SSI05-SB377_7/25/2005	0.47 U	2.2 J	78	0.70	0.031 U	22	14	11	8.2 J	0.011 J	14	0.52 J	0.6 U	0.19 J	2.7 B	48	113 J
BAR-S-SSI05-SB378_7/24/2005	0.46 U	2.1 J	88	0.59 J	0.03 U	27	8.2	18	8.3 J	0.015 J	19	0.43 J	0.58 U	0.19 J	3 B	37	33.5 J
BAR-S-SSI05-SB379_7/24/2005	0.46 U	1.6 J	87	0.63	0.03 U	27	8.2	16	6.9 J	0.0057 U	19	0.65 J	0.58 U	0.17 J	2.4 B	40	29.9 J
BAR-S-SSI05-SB380_7/24/2005	0.46 U	1.3 J	52	0.39 J	0.03 U	18	5.4	11	5.1 J	0.0067 J	13	0.26 J	0.58 U	0.086 J	2 B	34	21.4 J
BAR-S-SSI05-SB381_7/24/2005	0.47 U	2.3 J	94	0.72	0.031 U	31	9.6	19	7.9 J	0.0088 J	21	0.53 J	0.6 U	0.2 J	2.8 B	42	39 J
BAR-S-SSI05-SB382_7/23/2005	0.46 U	2.3 J	93	0.64	0.03 U	35	9.2	20	9.2 J	0.0063 J	24	0.38 J	0.58 U	0.19 J	2.8 B	45	47.9 J
BAR-S-SSI05-SB383_7/25/2005-AVE	0.47 U	2.0	98	0.76	0.031 U	29	10	20	9.5	0.016	21	0.40	0.59 U	0.22	3.0	43	37
BAR-S-SSI05-SB384_7/25/2005	0.46 U	1.8 J	68	0.46 J	0.03 U	27	5.3	13	7 J	0.006 J	16	0.35 J	0.58 U	0.15 J	3 B	30	26.2 J
BAR-S-SSI05-SB385_7/25/2005	0.45 U	2.1 J	80	0.69	0.03 U	24	7.9	15	9.4 J	0.016 J	17	0.36 J	0.57 U	0.22 J	2.6 B	36	31.5 J
BAR-S-SSI05-SB386_7/25/2005	0.46 U	1.9 J	94	0.76	0.044 J	27	7.7	18	12.7 J	0.012 J	19	0.51 J	0.58 U	0.22 J	3 B	36	39.1 J
BAR-S-SSI05-SB387_7/25/2005	0.47 U	1.4 J	87	0.62	0.031 U	29	7.2	17	10 J	0.014 J	19	0.44 J	0.6 U	0.15 J	2.6 B	41	36.1 J
BAR-S-SSI05-SB388_7/25/2005	0.46 U	1.6 J	87	0.70	0.03 U	27	7.5	16	8.5 J	0.0067 J	19	0.58 J	0.58 U	0.21 J	2.5 B	35	37.4 J
BAR-S-SSI05-SB389_7/25/2005	0.47 U	1.8 J	103	0.88	0.031 U	31	9.7	20	9.8 J	0.015 J	25	0.47 J	0.59 U	0.23 J	2.9 B	41	36.9 J
BAR-S-SSI05-SB390_7/25/2005	0.46 U	1.1 J	40	0.28 J	0.031 U	15	4.2	7.8	5.8 J	0.012 J	10.0	0.28 J	0.59 U	0.11 J	1.9 B	27	21.7 J
BAR-S-SSI05-SB391_7/25/2005	0.47 U	1.4 J	46	0.34 J	0.031 U	21	5.6	9.3	6.6 J	0.012 J	13	0.4 J	0.59 U	0.15 J	2.7 B	34	26 J
BAR-S-SSI05-SB392_7/25/2005	0.46 U	1.7 J	96	0.85	0.03 U	32	8.3	18	7.4 J	0.013 J	22	0.59 J	0.59 U	0.2 J	2.8 B	44	37.7 J
BAR-S-SSI05-SB393_7/23/2005	0.47 U	1.2 J	44	0.32 J	0.031 U	15	5.5	16	6.5 J	0.0058 U	12	0.37 J	0.59 U	0.12 J	2.4 B	30	32.8 J
BAR-S-SSI05-SB394_7/26/2005	0.45 U	1.6 J	113	0.85	0.05 J	30	11	21	11.8 J	0.012 J	31	0.67 J	0.56 U	0.26 J	3.1 B	43	36.4 J
BAR-S-SSI05-SB395_7/26/2005	0.46 U	1.7 J	137	0.91	0.1 J	34	14	24	9.9 J	0.0057 U	27	0.4 J	0.58 U	0.21 J	3.2 B	48	62.7 J
BAR-S-SSI05-SB396_7/26/2005	0.47 U	1.7 J	121	0.93	0.049 J	34	10	21	11.9 J	0.011 J	26	0.38 J	0.59 U	0.26 J	3 B	44	42.7 J
BAR-S-SSI05-SB397_7/26/2005	0.45 U	1.9 J	124	0.77	0.058 J	32	10	23	9.3 J	0.0056 U	25	0.72 J	0.57 U	0.23 J	3.2 B	44	41.7 J
BAR-S-SSI05-SB398_7/26/2005	0.45 U	1.9 J	93	0.65	0.03 U	29	8.2	17	10.9 J	0.0086 J	21	0.33 J	0.57 U	0.22 J	3.1 B	41	35.5 J
BAR-S-UAA001(0-2)_8/19/2006	0.44 U	1.1	27	0.28 J	0.047 U	6.2	2.2	4.0	5.4	0.013 J	4.5 J	0.99 U	0.18 U	0.75 U	2.2 U	11	13
BAR-S-UAA002(0-2)_8/19/2006	0.44 U	1.8	57	0.70	0.048 U	14	8.4	8.0	9.1	0.021 J	8.2	1 U	0.19 U	1.1 J	2.2 U	26	26
BAR-S-UAA003(0-2)_8/19/2006	0.45 U	2.0	62	0.69	0.049 U	17	11	9.2	9.4	0.035 J	11	1 U	0.19 U	1.2 J	2.3 U	33	28
BAR-S-UAA004(0-2)_8/19/2006	0.5 U	2.4	66	0.73	0.054 U	21	11	10	9.0	0.026 J	13	1.1 U	0.21 U	0.91 J	2.5 U	40	32
BAR-S-UAA005(0-2)_8/19/2006	0.45 U	1.3	48	0.61	0.048 U	16	11	8.9	6.6	0.0061 J	10	1 U	0.19 U	0.81 J	2.2 U	25	23
BAR-S-UAA006(0-2)_8/19/2006-AVE	0.44 U	2.6	71	0.81	0.048 U	24	15	11	7.9	0.017	14	1 U	0.19 U	0.96	2.2 U	43	36
BAR-S-UAA007(0-2)_8/19/2006	0.48 U	3.8	94	1.1	0.052 U	29	20	14	12	0.022 J	16	1.1 U	0.2 U	0.92 J	2.4 U	61	43
BAR-S-UAA008(0-2)_8/19/2006	0.45 U	1.3	37	0.41 J	0.049 U	9.7	10.0	4.8	5.5	0.018 J	5.1	1 U	0.19 U	1.2 J	2.3 U	20	18

**Table 1: Background Sample Constituent Concentrations (mg/kg)**

Sample Number	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (inorganic)	Nickel (soluble salts)	Selenium (and compounds)	Silver	Thallium	Tin	Vanadium	Zinc (and compounds)
BAR-S-UAA009(0-2)_8/19/2006	0.44 U	0.86 J	36	0.38 J	0.047 U	13	4.1	5.5	3.8	0.0032 U	7.4	0.99 U	0.18 U	0.75 U	2.2 U	18	18
BAR-S-UAC001(0-2)_8/18/2006	0.46 U	2.8	80	0.23 J	0.05 U	19.7 J	16	12	13	0.011 J	12	1 U	0.19 U	2.8	2.3 U	44	33.4 J
BAR-S-UAC002(0-2)_8/18/2006	0.49 U	2.5	88	0.49 J	0.053 U	26 J	6.4	21	5.4	0.01 J	19	1.1 U	0.21 U	1.7	2.5 U	38	25
BAR-S-UAC003(0-2)_8/18/2006	0.53 U	2.9	84	0.42 J	0.057 U	30.6 J	7.9	19	7.6	0.015 J	20	1.2 U	0.22 U	2.0	2.7 U	44	34
BAR-S-UAC004(0-2)_8/18/2006	0.52 U	3.3	104	0.54 J	0.056 U	36.1 J	7.1	20	7.8	0.01 J	22	1.2 U	0.22 U	2.1	2.6 U	50	30
BAR-S-UAC005(0-2)_8/18/2006	0.54 U	2.8	87	0.4 J	0.058 U	29.4 J	7.8	16	7.7	0.021 J	20	1.2 U	0.23 U	2.5	2.7 U	40	41
BAR-S-UAC006(0-2)_8/18/2006	0.47 U	2.2	55	0.2 J	0.05 U	15.9 J	5.5	10.0	7.2	0.028 J	11	1.1 U	0.2 U	1.6	2.3 U	26	30.7 J
BAR-S-UAC007(0-2)_8/18/2006	0.63 J	2.4	115	0.51 J	0.052 U	24.5 J	8.9	22	8.3	0.018 J	21	1.1 U	0.2 U	3.1	2.4 U	43	34 J
BAR-S-UAC008(0-2)_8/18/2006	0.61 U	2.4	91	0.36 J	0.065 U	24.8 J	12	17	9.2	0.016 J	18	1.4 U	0.25 U	2.6	3 U	36	34.9 J
BAR-S-UAC009(0-2)_8/18/2006	0.62 U	3.1	136	0.71 J	0.067 U	27.2 J	4.9	22	9.0	0.053 J	18	1.4 U	0.26 U	1.5 J	3.1 U	35	34
BAR-S-UAC010(0-2)_8/18/2006	0.5 U	2.2	136	0.96	0.11 J	31 J	5.9	38	8.7	0.02 J	22	1.1 U	0.21 U	2.1	2.5 U	32	39.2 J
BAR-S-UAC011(0-2)_8/18/2006	0.47 U	2.1	64	0.29 J	0.051 U	20.5 J	4.6	13	4.6	0.0072 J	15	1.1 U	0.2 U	2.4	2.3 U	31	21
BAR-S-UAC012(0-2)_8/18/2006	0.45 U	1.7	44	0.18 U	0.049 U	12.1 J	4.4	8.3	4.0	0.0082 J	8.8	1 U	0.19 U	1.3 J	2.3 U	22	13
BAR-S-UAC013(0-2)_8/19/2006	0.44 U	2.0	71	0.25 J	0.047 U	21.7 J	4.2	14	5.1	0.0096 J	13	0.99 U	0.18 U	1.7	2.2 U	28	19
BAR-S-UAC014(0-2)_8/18/2006	0.54 J	3.0	83	0.36 J	0.048 U	30.2 J	6.9	16	7.4	0.023 J	19	1 U	0.19 U	2.4	2.3 J	45	31
BAR-S-UAC015(0-2)_8/18/2006	0.55 U	2.6	95	0.45 J	0.059 U	26.3 J	8.3	17	6.4	0.023 J	20	1.2 U	0.23 U	2.9	2.8 U	36	29
BAR-S-UAC016(0-2)_8/18/2006	0.67 J	3.7	130	0.68 J	0.067 U	38.9 J	9.8	29	8.1	0.023 J	28	1.4 U	0.26 U	4.5	3.1 U	54	42
BAR-S-UAC017(0-2)_8/19/2006	0.48 U	1.8	54	0.2 J	0.052 U	14.2 J	4.0	11	4.7	0.016 J	10	1.1 U	0.2 U	1.5	2.4 U	22	16
BAR-S-UAC018(0-2)_8/18/2006	0.51 U	2.1	65	0.2 U	0.055 U	15.2 J	5.8	12	8.1	0.012 J	13	1.2 U	0.21 U	1.4 J	2.5 U	29	27
BAR-S-UAC021(0-2)_8/19/2006	0.43 U	1.2	31	0.25 J	0.046 U	9.7	3.2	3.4	5.9	0.018 J	5.8	0.97 U	0.18 U	0.73 U	2.1 U	18	18
BAR-S-UAC022(0-2)_8/19/2006	0.46 U	0.95 J	27	0.19 J	0.05 U	6.2	2.0	3.0	5.0	0.021 J	3.3 J	1 U	0.19 U	0.79 U	2.3 U	16	13
BAR-S-UAC023(0-2)_8/19/2006	0.46 U	0.8 U	15	0.18 U	0.05 U	4.6	1.4	2.1 J	1.9	0.0086 J	2.5 J	1 U	0.19 U	0.79 U	2.3 U	8.9	8.9
BAR-S-UAC024(0-2)_8/19/2006	0.55 U	1.1 J	42	0.38 J	0.059 U	11	6.1	7.0	6.2	0.02 J	9.4	1.2 U	0.23 U	0.94 U	2.7 U	31	26
BAR-S-UAC025(0-2)_8/19/2006	0.44 U	1.1 J	39	0.32 J	0.048 U	11	4.2	5.3	6.3	0.023 J	7.4	1 U	0.19 U	0.76 U	2.2 U	22	20
BAR-S-UAC026(0-2)_8/19/2006	0.43 U	1.2	36	0.29 J	0.046 U	12	4.4	5.4	5.7	0.0095 J	7.6	0.97 U	0.18 U	0.75 J	2.1 U	22	20
BAR-S-UAC027(0-2)_8/19/2006	0.44 U	1.1 J	44	0.41 J	0.047 U	16	6.5	7.2	6.4	0.0069 J	11	1.6	0.18 U	0.75 U	2.2 U	24	27
BAR-S-UAC028(0-2)_8/19/2006	0.44 U	1.5	43	0.35 J	0.048 U	14	5.2	5.8	7.7	0.0078 J	9.5	1 U	0.19 U	0.76 U	2.2 U	23	29
BAR-S-UAD011(0-2)_8/18/2006	0.52 U	3.4	176	1.1	0.056 U	39.7 J	8.8	41	7.6	0.013 J	33	1.2 U	0.22 U	2.4	2.6 U	48	38
BAR-S-UAO002(0-2)_8/4/2006		2.6							9.9 J								
BAR-S-UAO003(0-2)_8/6/2006		2.1							7.2 J								
BAR-S-UAO004(0-2)_8/6/2006		2.0							8.7 J								
BAR-S-UAO006(0-2)_8/6/2006		2.8							8.1 J								
BAR-S-UAO008(0-1)_9/8/2006		1.5							7.1 J								
BAR-S-UAO009(0-1)_9/8/2006-AVE		1.7							15								
BAR-S-SI07-UAT001(0-2)_10/3/2007		2.9							7.7								
BAR-S-SI07-UAT002(0-2)_10/3/2007		3.7							8.4								
BAR-S-SI07-UAT003(0-2)_10/3/2007		2.7							6.0								
BAR-S-SI07-UAT004(0-2)_10/3/2007		1.2							4.4								
BAR-S-SI07-UAT005(0-2)_10/3/2007		0.84							2.2								
BAR-S-SI07-UAT006(0-2)_10/3/2007		0.86							1.9								
BAR-S-SI07-UAT007(0-2)_10/3/2007		3.2							7.4								

**Table 1: Background Sample Constituent Concentrations (mg/kg)**

Sample Number	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (inorganic)	Nickel (soluble salts)	Selenium (and compounds)	Silver	Thallium	Tin	Vanadium	Zinc (and compounds)
BAR-S-SI07-UAT008(0-2)_10/3/2007		1.3							2.8								
BAR-S-SI07-UAT009(0-2)_10/3/2007		1.6							4.2								
BAR-S-SI07-UAT010(0-2)_10/3/2007		3.6							7.7								
BAR-S-SI07-UAT011(0-2)_10/3/2007		1.8							4.0								
BAR-S-SI07-UAT012(0-2)_10/3/2007		1.2							2.7								
BAR-S-SI07-UAT013(0-2)_10/3/2007		3.5							6.9								
BAR-S-SI07-UAT014(0-2)_10/3/2007		1.6							4.8								
BAR-S-SI07-UAT015(0-2)_10/3/2007		0.95							3.3								
BAR-S-SI07-UAT016(0-2)_10/3/2007		1.4							5.5								
BAR-S-SI07-UAT017(0-2)_10/3/2007		3.7							8.0								
BAR-S-SI07-UAT018(0-2)_10/3/2007		2.1							5.3								
BAR-S-SI07-UAT019(0-2)_10/3/2007		3.6							8.1								
BAR-S-SI07-UAT020(0-2)_10/3/2007		0.81							2.9								
BAR-S-SI07-UAT021(0-2)_10/3/2007		0.86							3.6								
BAR-S-SI07-UAT022(0-2)_10/3/2007		1.2							3.7								
BAR-S-SI07-UAT023(0-2)_10/3/2007		1.5							2.9								
BAR-S-SI07-UAT024(0-2)_10/3/2007		2.0							5.2								
BAR-S-SI07-UAT025(0-2)_10/3/2007		1.3							3.7								
BAR-S-SI07-UAT026(0-2)_10/3/2007		1.8							4.4								
BAR-S-SI07-UAT027(0-2)_10/4/2007		3.1							8.2								
BAR-S-SI07-UAT028(0-2)_10/4/2007		2.0							4.8								
BAR-S-SI07-UAT029(0-2)_10/4/2007		3.0							5.7								
BAR-S-SI07-UAT030(0-2)_10/4/2007		3.4							8.2								
BAR-S-SI07-UAT031(0-2)_10/4/2007		1.1							3.3								
BAR-S-SI07-UAT032(0-2)_10/4/2007		2.2							5.8								
BAR-S-SI07-UAT033(0-2)_10/3/2007		2.6							5.7								
BAR-S-SI07-UAT034(0-2)-DUP_10/3/2007		1.1							3.4								
BAR-S-SI07-UAT034(0-2)_10/3/2007		2.0							7.7								
BAR-S-UAG005(0-2)_8/3/2006		4.0							21								
BAR-S-SSI05-SB358_7/25/2005	0.5 U	2.8 J	60	0.63 J	0.063 J	15	8.5 J	23	25.4 J	0.03 J	10	0.44 J	0.64 U	0.12 J	2.1 B	34	109
BAR-S-SSI05-SB359_7/25/2005	0.61 U	2.1 J	94	0.57 J	0.24 J	23	8.8 J	22	30.1 J	0.067	19	0.77 J	0.78 U	0.19	2.7 B	32	107
BAR-S-UAG010(0-1)_9/8/2006		6.0							61.7 J								
BAR-S-UAG007(0-1)_9/8/2006		6.4							63.3 J								
BAR-S-UAG001(0-2)_8/4/2006		2.3							184 J								

**Notes:**

U = Constituent was not detected above the stated limit.

J = Estimated value

L = Low surrogate recovery

B = Compound detected in blank

Samples with "-AVE" extension reflect field duplicate samples that were combined using the following decision rules: (1) If both samples were detected then the values were averaged; (2) If one value was detected and one was not detected, the detected value was used; (3) If both values were not detected, then the lowest non-detected value was used.

Striked-through sample numbers indicate that samples were excluded from the evaluation as the results were not considered to be representative of background.

**Table 2: Final Background Concentrations**

Constituent	Maximum Concentration Detected <sup>1</sup> (mg/kg)	State Background Threshold Value <sup>2</sup> (mg/kg)	Final Background Concentration <sup>3</sup> (mg/kg)
Antimony	0.75	--	0.75
Arsenic	3.8	8.0	8.0
Barium	185	364	364
Beryllium	2.2	--	2.2
Cadmium	0.72	1.0	1.0
Chromium	47	44	47
Cobalt	33	22	33
Copper	41	35	41
Lead	15	52	52
Mercury	0.050	--	0.050
Nickel	37	--	37
Selenium	1.6	--	1.6
Silver	0.72	--	0.72
Thallium	4.5	--	4.5
Tin	11	--	11
Vanadium	61	85	85
Zinc	113	150	150

**Notes:**

-- = Not Available

<sup>1</sup> Maximum concentration of the Site background dataset.

<sup>2</sup> Based on WDNR Background Threshold Values; December 2018.

<sup>3</sup> The final background concentration is the larger of the maximum concentration detected and the WDNR Background Threshold Value.