

**TABLE 4**  
**Area I - Metal Comparison with BRC/TIMET Shallow Background Dataset<sup>1,2</sup>**  
**Phase B**

Chemical Name	Site Data Depths <sup>3</sup> (underline = inclusive)	BRC/TIMET Background Depths Used	BRC/TIMET Recommended Background Data Set Use <sup>2</sup>	Gilbert's Tool Box Results ( <i>p</i> -values) Test fails (shaded) if <i>p</i> -value for test < $\alpha$ = 0.025					Quantile Test at 0.75 vs 0.90 Confidence Interval?		Max #Tests Failed	Soils < 20 ft Above Background ?	Soils > 20 ft Above Background ?
				Two-Sample t- test	Gehan Test	Quantile Test (0.75)	Quantile Test (0.90)	Slippage Test	# Tests Failed w/QT (0.75)	# Tests Failed w/QT (0.90)			
Aluminum	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	3.11E-11	2.92E-06	5.07E-04	3.76E-07	1.80E-11	4	4	4	N	N
Aluminum	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.27E-01	1.09E-01	9.98E-01	9.79E-01	2.89E-02	0	0	0	N	N
Aluminum	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	7.72E-20	0.00E+00	2.01E-25	2.16E-09	2.16E-27	4	4	4	N	Y
Antimony	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	7.17E-12	1.79E-12	9.62E-01	9.49E-01	1.47E-04	3	3	3	N	N
Antimony	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	2.52E-07	1.79E-13	9.59E-01	6.96E-01	1.86E-05	3	3	3	Y	N
Antimony	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.43E-15	2.19E-05	8.93E-01	9.80E-01	2.50E-01	2	2	2	N	Y
Arsenic	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.22E-24	2.30E-05	2.75E-19	2.48E-07	1.92E-27	4	4	4	N	N
Arsenic	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.48E-06	8.90E-01	2.06E-03	1.11E-07	8.08E-12	3	3	3	Y	N
Arsenic	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.65E-31	0.00E+00	4.53E-26	6.09E-09	3.50E-58	4	4	4	N	Y
Barium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	5.56E-01	1.00E+00	1.00E+00	9.98E-01	7.50E-02	0	0	0	N	N
Barium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.39E-01	9.72E-01	9.98E-01	1.00E+00	2.22E-01	0	0	0	N	N
Barium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	7.74E-01	1.00E+00	9.56E-01	7.20E-01	2.91E-02	0	0	0	N	N
Beryllium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	2.40E-01	6.67E-01	6.43E-01	4.68E-02	1.09E-04	1	1	1	N	N
Beryllium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.67E-01	0	0	0	N	N
Beryllium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	6.24E-08	2.91E-08	2.88E-09	2.16E-09	7.60E-10	4	4	4	N	Y
Boron	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.16E-11	0.00E+00	1.99E-16	2.00E-06	7.67E-25	4	4	4	N	N
Boron	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.58E-04	0.00E+00	4.16E-14	1.02E-06	1.48E-12	4	4	4	Y	N
Boron	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	2.49E-27	0.00E+00	1.29E-21	8.52E-08	1.23E-44	4	4	4	N	Y
Cadmium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	3.14E-12	9.95E-01	2.20E-13	2.48E-07	5.46E-10	3	3	3	N	N
Cadmium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	6.74E-07	1.00E+00	3.25E-10	1.57E-06	1.11E-07	3	3	3	Y	N
Cadmium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.10E-08	1.65E-03	2.60E-13	2.16E-09	1.79E-10	4	4	4	N	Y
Chromium (Total)	0-2 ft	Surf (0 ft)	Surf (0 ft)	3.79E-01	1.00E+00	1.00E+00	4.25E-01	5.17E-02	0	0	0	N	N
Chromium (Total)	2-20 ft	Sub-Surf (5 & 10 ft)	Sub-Surf (5 & 10 ft)	1.56E-04	3.46E-02	3.23E-01	3.68E-03	9.67E-05	2	3	3	Y	N
Chromium (Total)	>20 ft	Sub-Surf (5 & 10 ft)	Sub-Surf (5 & 10 ft)	6.59E-20	0.00E+00	4.70E-14	2.14E-05	2.06E-30	4	4	4	N	Y
Chromium (VI)	0-2 ft	Surf (0 ft)	NA (used same as Cr (total))	1.07E-02	0.00E+00	2.23E-05	1.18E-02	NA	3	3	3	Y	N
Chromium (VI)	2-20 ft	Sub-Surf (5 & 10 ft)	NA (used same as Cr (total))	2.56E-08	0.00E+00	4.46E-01	4.46E-01	NA	2	2	2	Y	N
Chromium (VI)	>20 ft	Sub-Surf (5 & 10 ft)	NA (used same as Cr (total))	7.05E-43	0.00E+00	3.28E-06	1.52E-02	NA	3	3	3	N	Y
Cobalt	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.80E-01	0	0	0	N	N
Cobalt	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.67E-01	0	0	0	N	N
Cobalt	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0	0	0	N	N
Copper	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	8.00E-02	6.49E-01	7.27E-01	3.81E-01	2.43E-02	1	1	1	N	N
Copper	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.10E-01	7.29E-01	9.35E-01	3.07E-01	2.89E-02	0	0	0	N	N
Copper	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.70E-01	4.40E-01	3.97E-01	8.55E-01	7.13E-02	0	0	0	N	N
Iron	0-2 ft	Surf (0 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	1.71E-01	2.04E-01	6.80E-01	2.55E-01	2.33E-01	0	0	0	N	N
Iron	2-20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	2.02E-03	1.51E-03	8.46E-02	2.94E-01	1.00E+00	2	2	2	Y	N
Iron	>20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	1.73E-06	3.36E-06	1.33E-05	3.84E-04	9.00E-05	4	4	4	N	Y
Lead	10 ft	Sub-Surf (10 ft)	Sub-Surf (10 ft)	1.07E-03	2.35E-05	1.09E-02	2.72E-01	5.64E-01	3	2	3	N	N
Lead	0-2 ft	Surf (0 ft)	Surf (0 ft)	2.09E-02	5.29E-01	5.14E-01	2.09E-02	3.72E-03	2	3	3	Y	N
Lead	>20 ft	Sub-Surf (10 ft)	Sub-Surf (10 ft)	1.06E-10	1.22E-08	1.85E-04	1.01E-01	2.32E-02	4	3	4	N	Y
Lead	5-20 ft	Sub-Surf (10 ft)	Sub-Surf (10 ft)	1.11E-04	6.06E-07	1.77E-02	2.83E-01	3.49E-01	3	2	3	N	N

**TABLE 4**  
**Area I - Metal Comparison with BRC/TIMET Shallow Background Dataset<sup>1,2</sup>**  
**Phase B**

Chemical Name	Site Data Depths <sup>3</sup> (underline = inclusive)	BRC/TIMET Background Depths Used	BRC/TIMET Recommended Background Data Set Use <sup>2</sup>	Gilbert's Tool Box Results ( <i>p</i> -values) Test fails ( <i>shaded</i> ) if <i>p</i> -value for test < $\alpha = 0.025$					Quantile Test at 0.75 vs 0.90 Confidence Interval?		Max #Tests Failed	Soils < 20 ft Above Background ?	Soils > 20 ft Above Background ?
				Two-Sample t- test	Gehan Test	Quantile Test (0.75)	Quantile Test (0.90)	Slippage Test	# Tests Failed w/QT (0.75)	# Tests Failed w/QT (0.90)			
Magnesium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.89E-19	0.00E+00	4.64E-19	3.76E-07	1.27E-21	4	4	4	N	N
Magnesium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	2.52E-05	1.34E-07	6.30E-05	1.11E-07	1.98E-08	4	4	4	Y	N
Magnesium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	3.31E-28	0.00E+00	2.01E-25	2.16E-09	9.18E-45	4	4	4	N	Y
Manganese	0-2 ft	Surf (0 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	9.07E-02	6.29E-01	9.91E-02	2.09E-02	6.38E-03	1	2	2	Y	N
Manganese	2-20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.99E-01	0	0	0	N	N
Manganese	>20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	9.72E-01	9.98E-01	9.84E-01	7.10E-01	5.34E-01	0	0	0	N	N
Mercury	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.86E-01	1.00E+00	1.00E+00	9.95E-01	3.32E-01	0	0	0	N	N
Mercury	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	7.86E-01	1.00E+00	1.00E+00	8.15E-01	2.22E-01	0	0	0	N	N
Mercury	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0	0	0	N	N
Molybdenum	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.30E-02	1.49E-04	1.80E-05	1.68E-03	5.01E-02	2	2	2	N	N
Molybdenum	<= 20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.45E-02	2.26E-01	1.79E-01	1.13E-02	8.04E-02	0	1	1	N	N
Molybdenum	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.21E-09	3.34E-14	1.84E-08	8.34E-04	6.69E-02	3	3	3	N	Y
Nickel	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	9.99E-01	1.00E+00	1.00E+00	6.93E-01	0	0	0	N	N
Nickel	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.99E-01	9.99E-01	1.00E+00	1.00E+00	6.07E-01	0	0	0	N	N
Nickel	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.97E-01	9.92E-01	1.00E+00	9.39E-01	1.00E+00	0	0	0	N	N
Platinum	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	5.97E-28	5.08E-04	5.21E-04	2.75E-02	5.14E-01	3	2	3	N	N
Platinum	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.56E-20	9.85E-06	3.60E-03	3.39E-02	3.99E-01	3	2	3	Y	N
Platinum	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.44E-10	2.76E-01	6.79E-04	1.49E-02	1.00E+00	2	2	2	N	Y
Potassium	0-2 ft	Surf (0 ft)	Surf (0 ft)	8.55E-03	1.98E-03	5.20E-01	7.11E-01	2.88E-01	2	2	2	Y	N
Potassium	2-20 ft	Sub-Surf (5 & 10 ft)	Sub-Surf (5 & 10 ft)	1.03E-09	5.84E-12	7.33E-03	1.69E-03	2.85E-03	4	4	4	Y	N
Potassium	>20 ft	Sub-Surf (5 & 10 ft)	Sub-Surf (5 & 10 ft)	3.52E-25	0.00E+00	6.74E-12	5.05E-05	4.09E-21	4	4	4	N	Y
Selenium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.69E-54	0.00E+00	1.00E+00	9.99E-01	2.23E-16	3	3	3	N	N
Selenium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	5.80E-32	0.00E+00	1.00E+00	8.91E-01	3.44E-14	3	3	3	Y	N
Selenium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	3.40E-29	0.00E+00	1.00E+00	9.95E-01	1.50E-06	3	3	3	N	Y
Silver	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	5.18E-05	1.15E-05	3.11E-05	2.48E-07	2.99E-03	4	4	4	N	N
Silver	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.37E-03	6.19E-07	3.14E-06	1.44E-04	1.86E-03	4	4	4	Y	N
Silver	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.38E-04	2.69E-02	8.06E-02	1.40E-02	1.65E-02	2	3	3	N	Y
Sodium	0-2 ft	Surf (0 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	3.57E-09	6.90E-13	1.12E-06	8.35E-03	3.38E-09	4	4	4	Y	N
Sodium	2-20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	1.90E-09	3.43E-14	9.46E-09	1.24E-04	1.02E-09	4	4	4	Y	N
Sodium	>20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	3.24E-14	1.11E-16	2.85E-12	5.05E-05	3.86E-18	4	4	4	N	Y
Strontium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.32E-03	2.05E-02	1.11E-01	5.65E-02	6.85E-03	3	3	3	N	N
Strontium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.75E-04	6.43E-05	1.05E-01	5.06E-02	2.59E-03	3	3	3	Y	N
Strontium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	7.26E-01	9.66E-01	9.82E-01	9.36E-01	2.04E-01	0	0	0	N	N
Thallium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	6.11E-01	1.00E+00	4.45E-01	1.00E+00	2.29E-01	0	0	0	N	N
Thallium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.62E-01	1.00E+00	8.93E-01	1.00E+00	1.34E-01	0	0	0	N	N
Thallium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.00E+00	1.00E+00	3.97E-01	1.00E+00	1.00E+00	0	0	0	N	N
Tin	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	2.17E-115	0.00E+00	1.99E-16	2.88E-06	4.72E-76	4	4	4	N	N
Tin	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.36E-83	0.00E+00	1.33E-16	1.69E-06	1.45E-66	4	4	4	Y	N
Tin	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	3.14E-35	0.00E+00	1.70E-20	8.52E-08	0.00E+00	4	4	4	N	Y

**TABLE 4**  
**Area I - Metal Comparison with BRC/TIMET Shallow Background Dataset<sup>1,2</sup>**  
**Phase B**

Chemical Name	Site Data Depths <sup>3</sup> (underline = inclusive)	BRC/TIMET Background Depths Used	BRC/TIMET Recommended Background Data Set Use <sup>2</sup>	Gilbert's Tool Box Results ( <i>p</i> -values) Test fails (shaded) if <i>p</i> -value for test < $\alpha$ = 0.025					Quantile Test at 0.75 vs 0.90 Confidence Interval?		Max #Tests Failed	Soils < 20 ft Above Background ?	Soils > 20 ft Above Background ?
				Two-Sample t- test	Gehan Test	Quantile Test (0.75)	Quantile Test (0.90)	Slippage Test	# Tests Failed w/QT (0.75)	# Tests Failed w/QT (0.90)			
Titanium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.25E-23	0.00E+00	3.59E-10	3.51E-04	5.16E-02	3	3	3	N	N
Titanium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	4.13E-21	0.00E+00	3.82E-11	1.44E-04	8.04E-02	3	3	3	Y	N
Titanium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	6.03E-16	4.77E-15	3.50E-10	1.77E-05	7.13E-02	3	3	3	N	Y
Tungsten	All Depths	All (0, 5, & 10 ft)	NA	4.70E-01	1.00E+00	3.15E-16	2.00E-06	NA	1	1	1	N	N
Tungsten	0-20 ft	All (0, 5, & 10 ft)	NA	3.00E-01	1.00E+00	3.69E-17	1.02E-06	NA	1	1	1	Y	N
Tungsten	>20 ft	All (0, 5, & 10 ft)	NA	1.00E+00	1.00E+00	7.16E-19	2.15E-07	NA	1	1	1	N	Y
Uranium	10 ft	Sub-Surf (10 ft)	Sub-Surf (10 ft)	3.73E-04	6.26E-04	3.86E-02	9.11E-02	6.99E-02	2	2	2	N	N
Uranium	5-20 ft	Sub-Surf (10 ft)	Sub-Surf (10 ft)	1.31E-05	1.67E-10	1.70E-05	1.59E-02	2.63E-06	4	4	4	N	N
Vanadium	All Depths	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	2.02E-06	5.98E-06	1.83E-01	4.68E-02	7.50E-02	2	2	2	N	N
Vanadium	0-20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	9.33E-08	5.85E-07	7.07E-02	3.14E-02	4.82E-02	2	2	2	Y	N
Vanadium	>20 ft	All (0, 5, & 10 ft)	All (0, 5, & 10 ft)	1.56E-02	2.13E-02	2.95E-01	4.67E-01	4.18E-01	2	2	2	N	Y
Zinc	0-2 ft	Surf (0 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	5.37E-01	1.00E+00	9.96E-01	2.55E-01	3.81E-01	0	0	0	N	N
Zinc	2-20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	9.99E-01	9.98E-01	1.00E+00	1.00E+00	3.57E-01	0	0	0	N	N
Zinc	>20 ft	Sub-Surf (5 & 10 ft)	Surf (0 ft), Subsurf (5 & 10 ft)	1.10E-04	1.99E-04	3.25E-04	3.84E-04	9.00E-05	4	4	4	N	Y

<sup>1</sup> Analyzed using the EnviroGISdT software tool from Neptune & Company, Inc.

<sup>2</sup> Background Shallow Soil Summary Report, BMI Complex and Common Areas Vicinity, TIMET and BRC, July 2007. Approved by NDEP on July 26, 2007.

\* Based on BRC/TIMET shallow alluvium background dataset.

 failed test