

ANALYTICAL RESULTS SUMMARY

GENERAL CHEMISTRY
METALS
GC SEMI-VOLATILES
SEMI-VOLATILE ORGANICS
VOLATILE ORGANICS

PROJECT NAME : NYCDDC PHASE II SCI ARTHUR KILL ROAD CEQR

LOUIS BERGER U.S., INC., A WSP COMPANY

96 Morton Street

8th Floor

New York, NY - 10014

Phone No: 212-462-8500

ORDER ID : 01233

ATTENTION : Jonathan Ganz



Laboratory Certification ID # 20012



Hit Summary Sheet SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: O1233-02	B-P34A B-P34A	SOIL	Acetone	22.2	J	14.1	28.9	ug/Kg
			Total Voc :	22.2				
O1233-02	B-P34A	SOIL	unknown11.034	* 6.40	J	0	0	ug/Kg
O1233-02	B-P34A	SOIL	Ethanol, 2-(trimethylsilyl)-	* 27.6	J	0	0	ug/Kg
			Total Tics :	34.0				
			Total Concentration:	56.2				
Client ID: O1233-03	B-P34B B-P34B	SOIL	Silanol, trimethyl-	* 24.0	J	0	0	ug/Kg
			Total Tics :	24.0				
			Total Concentration:	24.0				
Client ID: O1233-04	B-P36A B-P36A	SOIL	Acetone	17.6	J	13.5	27.7	ug/Kg
			Total Voc :	17.6				
O1233-04	B-P36A	SOIL	Silanol, trimethyl-	* 9.90	J	0	0	ug/Kg
			Total Tics :	9.90				
			Total Concentration:	27.5				
Client ID: O1233-06	B-P37A B-P37A	SOIL	Ethanol, 2-(trimethylsilyl)-	* 11.8	J	0	0	ug/Kg
			Total Tics :	11.8				
			Total Concentration:	11.8				
Client ID: O1233-07	B-P37B B-P37B	SOIL	Acetone	20.6	J	14.6	29.8	ug/Kg
			Total Voc :	20.6				
O1233-07	B-P37B	SOIL	unknown10.947	* 8.50	J	0	0	ug/Kg
O1233-07	B-P37B	SOIL	Ethylene glycol, TMS derivativ	* 40.0	J	0	0	ug/Kg
			Total Tics :	48.5				
			Total Concentration:	69.1				
Client ID: O1233-09	B-P38B B-P38B	SOIL	Octane	* 6.70	J	0	0	ug/Kg
			Total Tics :	6.70				
			Total Concentration:	6.70				
Client ID: O1233-11	B-P38C B-P38C	SOIL	Cyclohexane	4600		97.2	580	ug/Kg
O1233-11	B-P38C	SOIL	Methylcyclohexane	31500	E	92.6	580	ug/Kg
O1233-11	B-P38C	SOIL	Ethyl Benzene	860		81.0	580	ug/Kg
O1233-11	B-P38C	SOIL	m/p-Xylenes	2400		170	1200	ug/Kg
O1233-11	B-P38C	SOIL	o-Xylene	320	J	91.4	580	ug/Kg
O1233-11	B-P38C	SOIL	Isopropylbenzene	1500		83.3	580	ug/Kg
			Total Voc :	41200				
O1233-11	B-P38C	SOIL	unknown12.600	* 47300	J	0	0	ug/Kg



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Hit Summary Sheet
SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-11	B-P38C	SOIL	Octane	* 54700	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane	* 22000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 3-methyl-	* 22900	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 2-methyl-	* 38200	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	1-Phenyl-1-butene	* 31200	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 3-methyl-	* 30700	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 2-methyl-	* 49000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane, 3-methyl-	* 28400	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane, 4-methyl-	* 27300	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	n-propylbenzene	* 3300	J	82.2	580	ug/Kg
O1233-11	B-P38C	SOIL	1,3,5-Trimethylbenzene	* 4000	J	74.1	580	ug/Kg
O1233-11	B-P38C	SOIL	1,2,4-Trimethylbenzene	* 7700	J	82.2	580	ug/Kg
O1233-11	B-P38C	SOIL	sec-Butylbenzene	* 1300	J	87.9	580	ug/Kg
O1233-11	B-P38C	SOIL	p-Isopropyltoluene	* 2600	J	96.0	580	ug/Kg
O1233-11	B-P38C	SOIL	n-Butylbenzene	* 3700	J	82.2	580	ug/Kg
Total Tics :				374000				
Total Concentration:				415000				
Client ID:	B-P38CDL							
O1233-11DL	B-P38CDL	SOIL	Cyclohexane	6300	D	970	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Methylcyclohexane	33800	D	930	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Ethyl Benzene	1000	JD	810	5800	ug/Kg
O1233-11DL	B-P38CDL	SOIL	m/p-Xylenes	2800	JD	1700	11600	ug/Kg
O1233-11DL	B-P38CDL	SOIL	Isopropylbenzene	2100	JD	830	5800	ug/Kg
Total Voc :				46000				
Total Concentration:				46000				
Client ID:	FB01							
O1233-12	FB01	Water	Methylene Chloride	2.80		0.18	1.00	ug/L
Total Voc :				2.80				
Total Concentration:				2.80				



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Hit Summary Sheet SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B-P34A								
O1233-02	B-P34A	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	1,800.000	AB	0	0	ug/Kg
O1233-02	B-P34A	SOIL	Benzophenone *	790.000	J	0	0	ug/Kg
O1233-02	B-P34A	SOIL	Heptafluorobutyric acid, n-octadec *	300.000	J	0	0	ug/Kg
O1233-02	B-P34A	SOIL	Methanone, (1-hydroxycyclohexy *	100.000	J	0	0	ug/Kg
O1233-02	B-P34A	SOIL	n-Hexadecanoic acid *	220.000	J	0	0	ug/Kg
Total Tics :				3,210.00				
Total Concentration:				3,210.00				
Client ID : B-P34B								
O1233-03	B-P34B	SOIL	1-Dodecanol, 2-octyl- *	190.000	J	0	0	ug/Kg
O1233-03	B-P34B	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	1,300.000	AB	0	0	ug/Kg
O1233-03	B-P34B	SOIL	Benzophenone *	130.000	J	0	0	ug/Kg
O1233-03	B-P34B	SOIL	n-Hexadecanoic acid *	170.000	J	0	0	ug/Kg
Total Tics :				1,790.00				
Total Concentration:				1,790.00				
Client ID : B-P36A								
O1233-04	B-P36A	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	1,400.000	AB	0	0	ug/Kg
O1233-04	B-P36A	SOIL	Benzophenone *	140.000	J	0	0	ug/Kg
O1233-04	B-P36A	SOIL	n-Hexadecanoic acid *	160.000	J	0	0	ug/Kg
O1233-04	B-P36A	SOIL	Pentadecafluorooctanoic acid, oct: *	160.000	J	0	0	ug/Kg
Total Tics :				1,860.00				
Total Concentration:				1,860.00				
Client ID : B-P36B								
O1233-05	B-P36B	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	1,400.000	AB	0	0	ug/Kg
O1233-05	B-P36B	SOIL	3-Hexen-2-one *	79.300	J	0	0	ug/Kg
O1233-05	B-P36B	SOIL	Benzophenone *	99.200	J	0	0	ug/Kg
O1233-05	B-P36B	SOIL	Pentadecafluorooctanoic acid, oct: *	95.800	J	0	0	ug/Kg
Total Tics :				1,674.30				
Total Concentration:				1,674.30				
Client ID : B-P37A								
O1233-06	B-P37A	SOIL	Phenanthrene	120.000	J	95	190	ug/Kg
O1233-06	B-P37A	SOIL	Fluoranthene	220.000		90.7	190	ug/Kg
O1233-06	B-P37A	SOIL	Pyrene	190.000		84.3	190	ug/Kg
O1233-06	B-P37A	SOIL	Chrysene	110.000	J	97.1	190	ug/Kg
O1233-06	B-P37A	SOIL	Bis(2-ethylhexyl)phthalate	110.000	J	100	190	ug/Kg
O1233-06	B-P37A	SOIL	Benzo(b)fluoranthene	140.000	J	78.4	190	ug/Kg
O1233-06	B-P37A	SOIL	Benzo(a)pyrene	92.400	J	76.9	190	ug/Kg
Total Svoc :				982.40				
O1233-06	B-P37A	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	630.000	AB	0	0	ug/Kg

Hit Summary Sheet SW-846

SDG No.: O1233
Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-06	B-P37A	SOIL	Benzophenone	*	160.000	J 0	0	ug/Kg
O1233-06	B-P37A	SOIL	unknown21.522	*	110.000	J 0	0	ug/Kg
Total Tics :				900.00				
Total Concentration:				1,882.40				
Client ID : B-P37B								
O1233-07	B-P37B	SOIL	Bis(2-ethylhexyl)phthalate		150.000	J 110	200	ug/Kg
Total Svoc :				150.00				
O1233-07	B-P37B	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	1,400.000	AB 0		0	ug/Kg
O1233-07	B-P37B	SOIL	Benzophenone	*	210.000	J 0	0	ug/Kg
O1233-07	B-P37B	SOIL	n-Hexadecanoic acid	*	310.000	J 0	0	ug/Kg
O1233-07	B-P37B	SOIL	Octadecanoic acid	*	130.000	J 0	0	ug/Kg
Total Tics :				2,050.00				
Total Concentration:				2,200.00				
Client ID : B-38A								
O1233-08	B-38A	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	660.000	AB 0		0	ug/Kg
O1233-08	B-38A	SOIL	Benzophenone	*	180.000	J 0	0	ug/Kg
O1233-08	B-38A	SOIL	Cyclotetradecane	*	140.000	J 0	0	ug/Kg
Total Tics :				980.00				
Total Concentration:				980.00				
Client ID : B-P38B								
O1233-09	B-P38B	SOIL	2-Pentanone, 4-hydroxy-4-methyl *	1,600.000	AB 0		0	ug/Kg
O1233-09	B-P38B	SOIL	Benzophenone	*	240.000	J 0	0	ug/Kg
O1233-09	B-P38B	SOIL	n-Hexadecanoic acid	*	160.000	J 0	0	ug/Kg
O1233-09	B-P38B	SOIL	Oxalic acid, cyclobutyl hexadecyl *	220.000	J 0		0	ug/Kg
O1233-09	B-P38B	SOIL	Supraene	*	140.000	J 0	0	ug/Kg
O1233-09	B-P38B	SOIL	unknown12.807	*	380.000	J 0	0	ug/Kg
Total Tics :				2,740.00				
Total Concentration:				2,740.00				
Client ID : B-P38C								
O1233-11	B-P38C	SOIL	Naphthalene		4,600.000	E 85.9	200	ug/Kg
O1233-11	B-P38C	SOIL	2-Methylnaphthalene		4,300.000	E 87.2	200	ug/Kg
O1233-11	B-P38C	SOIL	Bis(2-ethylhexyl)phthalate		150.000	J 100	200	ug/Kg
Total Svoc :				9,050.00				
O1233-11	B-P38C	SOIL	1-Phenyl-1-butene	*	2,300.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Cyclohexane, 1-ethyl-2-methyl-	*	860.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Decane, 3-methyl-	*	1,000.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 2,5-dimethyl-	*	800.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Heptane, 2-methyl-	*	910.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 1,2,3-trimethyl-	*	2,100.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 1,3-diethyl-5-methyl-	*	990.000	J 0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 1-ethyl-2-methyl-	*	1,100.000	J 0	0	ug/Kg



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Hit Summary Sheet
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-11	B-P38C	SOIL	Benzene, 1-ethyl-3,5-dimethyl-	* 1,400.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 1-ethyl-3-methyl-	* 800.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 1-methyl-4-(1-methylpr	* 950.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 2-butenyl-	* 1,300.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Benzene, 4-ethyl-1,2-dimethyl-	* 890.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Nonane	* 1,400.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane	* 1,400.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	Octane, 2,6-dimethyl-	* 1,900.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	o-Cymene	* 840.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	unknown7.748	* 1,600.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	unknown8.666	* 1,000.000	J	0	0	ug/Kg
O1233-11	B-P38C	SOIL	1-Methylnaphthalene	* 2,000.000	J	92.3	200	ug/Kg
Total Tics :				25,540.00				
Total Concentration:				34,590.00				
Client ID :	B-P38CDL							
O1233-11DL	B-P38CDL	SOIL	Naphthalene	4,300.000	D	430	990	ug/Kg
O1233-11DL	B-P38CDL	SOIL	2-Methylnaphthalene	3,600.000	D	440	990	ug/Kg
Total Svoc :				7,900.00				
Total Concentration:				7,900.00				



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Hit Summary Sheet
SW-846

SDG No.: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :	WC-38							
O1233-10	WC-38	SOIL	Naphthalene	1,700.000		86.8	200	ug/Kg
			Total Svoc :			1,700.00		
			Total Concentration:			1,700.00		



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Hit Summary Sheet
SW-846

SDG No.: O1233

Order ID: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Project ID: NYCDDC Phase II SCI Arthur Kill Re

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B-P37A								
O1233-06	B-P37A	SOIL	4,4-DDE	0.74	JP	0.18	1.90	ug/kg
O1233-06	B-P37A	SOIL	4,4-DDT	0.53	JP	0.20	1.90	ug/kg
O1233-06	B-P37A	SOIL	alpha-Chlordane	9.10	P	0.15	1.90	ug/kg
O1233-06	B-P37A	SOIL	gamma-Chlordane	3.50	P	0.16	1.90	ug/kg
Total Concentration:				13.870				
Client ID : B-P37B								
O1233-07	B-P37B	SOIL	4,4-DDE	0.55	J	0.19	2.00	ug/kg
O1233-07	B-P37B	SOIL	4,4-DDD	0.69	JP	0.23	2.00	ug/kg
O1233-07	B-P37B	SOIL	gamma-Chlordane	1.10	JP	0.17	2.00	ug/kg
Total Concentration:				2.340				



Hit Summary Sheet
SW-846

SDG No.:	O1233	Order ID:	O1233
Client:	Louis Berger U.S., Inc., A WSP Company	Project ID:	NYCDDC Phase II SCI Arthur Kill Re

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								

Total Concentration:	0.000
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Hit Summary Sheet
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SDG No.: O1233

Order ID: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Project ID: NYCDDC Phase II SCI Arthur Kill Road C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B-P34A								
O1233-02	B-P34A	SOIL	Aluminum	10800		2.44	5.53	mg/Kg
O1233-02	B-P34A	SOIL	Arsenic	7.51		0.23	1.11	mg/Kg
O1233-02	B-P34A	SOIL	Barium	39.6		0.80	5.53	mg/Kg
O1233-02	B-P34A	SOIL	Beryllium	0.68		0.023	0.33	mg/Kg
O1233-02	B-P34A	SOIL	Cadmium	0.13	J	0.030	0.33	mg/Kg
O1233-02	B-P34A	SOIL	Calcium	1060		7.90	111	mg/Kg
O1233-02	B-P34A	SOIL	Chromium	30.9		0.10	0.55	mg/Kg
O1233-02	B-P34A	SOIL	Cobalt	12.2		0.083	1.66	mg/Kg
O1233-02	B-P34A	SOIL	Copper	17.3		0.47	1.11	mg/Kg
O1233-02	B-P34A	SOIL	Iron	20900		4.35	5.53	mg/Kg
O1233-02	B-P34A	SOIL	Lead	19.1		0.29	0.66	mg/Kg
O1233-02	B-P34A	SOIL	Magnesium	2210		10.1	111	mg/Kg
O1233-02	B-P34A	SOIL	Manganese	286		0.12	1.11	mg/Kg
O1233-02	B-P34A	SOIL	Mercury	0.018		0.0040	0.015	mg/Kg
O1233-02	B-P34A	SOIL	Nickel	56.2		0.20	2.21	mg/Kg
O1233-02	B-P34A	SOIL	Potassium	715		25.8	111	mg/Kg
O1233-02	B-P34A	SOIL	Silver	1.24		0.086	0.55	mg/Kg
O1233-02	B-P34A	SOIL	Sodium	61.2	J	25.9	111	mg/Kg
O1233-02	B-P34A	SOIL	Vanadium	24.4		0.35	2.21	mg/Kg
O1233-02	B-P34A	SOIL	Zinc	46.0		0.22	2.21	mg/Kg
Client ID : B-P34B								
O1233-03	B-P34B	SOIL	Aluminum	3100		2.42	5.49	mg/Kg
O1233-03	B-P34B	SOIL	Arsenic	3.13		0.23	1.10	mg/Kg
O1233-03	B-P34B	SOIL	Barium	24.2		0.79	5.49	mg/Kg
O1233-03	B-P34B	SOIL	Beryllium	0.51		0.023	0.33	mg/Kg
O1233-03	B-P34B	SOIL	Cadmium	0.17	J	0.030	0.33	mg/Kg
O1233-03	B-P34B	SOIL	Calcium	1520		7.83	110	mg/Kg
O1233-03	B-P34B	SOIL	Chromium	54.3		0.099	0.55	mg/Kg
O1233-03	B-P34B	SOIL	Cobalt	9.66		0.082	1.65	mg/Kg
O1233-03	B-P34B	SOIL	Copper	7.54		0.46	1.10	mg/Kg
O1233-03	B-P34B	SOIL	Iron	10800		4.31	5.49	mg/Kg
O1233-03	B-P34B	SOIL	Lead	240		0.28	0.66	mg/Kg
O1233-03	B-P34B	SOIL	Magnesium	3560		9.99	110	mg/Kg
O1233-03	B-P34B	SOIL	Manganese	331		0.12	1.10	mg/Kg
O1233-03	B-P34B	SOIL	Mercury	0.0070	J	0.0030	0.014	mg/Kg
O1233-03	B-P34B	SOIL	Nickel	128		0.20	2.19	mg/Kg
O1233-03	B-P34B	SOIL	Potassium	620		25.6	110	mg/Kg
O1233-03	B-P34B	SOIL	Silver	0.60		0.086	0.55	mg/Kg

**Hit Summary Sheet**
SW-846**SDG No.:** O1233**Order ID:** O1233**Client:** Louis Berger U.S., Inc., A WSP Company**Project ID:** NYCDDC Phase II SCI Arthur Kill Road C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-03	B-P34B	SOIL	Sodium	117		25.7	110	mg/Kg
O1233-03	B-P34B	SOIL	Vanadium	10.3		0.35	2.19	mg/Kg
O1233-03	B-P34B	SOIL	Zinc	52.8		0.22	2.19	mg/Kg
Client ID : B-P36A								
O1233-04	B-P36A	SOIL	Aluminum	7380		2.25	5.10	mg/Kg
O1233-04	B-P36A	SOIL	Arsenic	8.08		0.21	1.02	mg/Kg
O1233-04	B-P36A	SOIL	Barium	60.2		0.73	5.10	mg/Kg
O1233-04	B-P36A	SOIL	Beryllium	0.82		0.021	0.31	mg/Kg
O1233-04	B-P36A	SOIL	Cadmium	0.63		0.028	0.31	mg/Kg
O1233-04	B-P36A	SOIL	Calcium	1650		7.28	102	mg/Kg
O1233-04	B-P36A	SOIL	Chromium	20.8		0.092	0.51	mg/Kg
O1233-04	B-P36A	SOIL	Cobalt	10.1		0.076	1.53	mg/Kg
O1233-04	B-P36A	SOIL	Copper	24.8		0.43	1.02	mg/Kg
O1233-04	B-P36A	SOIL	Iron	17500		4.01	5.10	mg/Kg
O1233-04	B-P36A	SOIL	Lead	69.2		0.27	0.61	mg/Kg
O1233-04	B-P36A	SOIL	Magnesium	3010		9.29	102	mg/Kg
O1233-04	B-P36A	SOIL	Manganese	202		0.11	1.02	mg/Kg
O1233-04	B-P36A	SOIL	Mercury	0.0070	J	0.0030	0.014	mg/Kg
O1233-04	B-P36A	SOIL	Nickel	53.4		0.18	2.04	mg/Kg
O1233-04	B-P36A	SOIL	Potassium	789		23.7	102	mg/Kg
O1233-04	B-P36A	SOIL	Silver	1.08		0.080	0.51	mg/Kg
O1233-04	B-P36A	SOIL	Sodium	89.6	J	23.9	102	mg/Kg
O1233-04	B-P36A	SOIL	Vanadium	20.7		0.33	2.04	mg/Kg
O1233-04	B-P36A	SOIL	Zinc	88.8		0.20	2.04	mg/Kg
Client ID : B-P36B								
O1233-05	B-P36B	SOIL	Aluminum	3890		2.26	5.12	mg/Kg
O1233-05	B-P36B	SOIL	Arsenic	1.69		0.22	1.02	mg/Kg
O1233-05	B-P36B	SOIL	Barium	24.5		0.74	5.12	mg/Kg
O1233-05	B-P36B	SOIL	Beryllium	0.40		0.022	0.31	mg/Kg
O1233-05	B-P36B	SOIL	Cadmium	0.18	J	0.028	0.31	mg/Kg
O1233-05	B-P36B	SOIL	Calcium	6970		7.31	102	mg/Kg
O1233-05	B-P36B	SOIL	Chromium	10.0		0.092	0.51	mg/Kg
O1233-05	B-P36B	SOIL	Cobalt	5.02		0.077	1.54	mg/Kg
O1233-05	B-P36B	SOIL	Copper	8.78		0.43	1.02	mg/Kg
O1233-05	B-P36B	SOIL	Iron	9590		4.03	5.12	mg/Kg
O1233-05	B-P36B	SOIL	Lead	5.23		0.27	0.62	mg/Kg
O1233-05	B-P36B	SOIL	Magnesium	4880		9.33	102	mg/Kg
O1233-05	B-P36B	SOIL	Manganese	261		0.11	1.02	mg/Kg
O1233-05	B-P36B	SOIL	Nickel	15.9		0.18	2.05	mg/Kg
O1233-05	B-P36B	SOIL	Potassium	603		23.9	102	mg/Kg
O1233-05	B-P36B	SOIL	Silver	0.56		0.080	0.51	mg/Kg

**Hit Summary Sheet**
SW-846**SDG No.:** O1233**Order ID:** O1233**Client:** Louis Berger U.S., Inc., A WSP Company**Project ID:** NYCDDC Phase II SCI Arthur Kill Road C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-05	B-P36B	SOIL	Sodium	156		24.0	102	mg/Kg
O1233-05	B-P36B	SOIL	Vanadium	11.6		0.33	2.05	mg/Kg
O1233-05	B-P36B	SOIL	Zinc	19.8		0.21	2.05	mg/Kg

Client ID : B-P37A

O1233-06	B-P37A	SOIL	Aluminum	5130		2.24	5.08	mg/Kg
O1233-06	B-P37A	SOIL	Arsenic	4.27		0.21	1.02	mg/Kg
O1233-06	B-P37A	SOIL	Barium	47.5		0.73	5.08	mg/Kg
O1233-06	B-P37A	SOIL	Beryllium	0.60		0.021	0.31	mg/Kg
O1233-06	B-P37A	SOIL	Cadmium	0.40		0.027	0.31	mg/Kg
O1233-06	B-P37A	SOIL	Calcium	890		7.25	102	mg/Kg
O1233-06	B-P37A	SOIL	Chromium	18.1		0.091	0.51	mg/Kg
O1233-06	B-P37A	SOIL	Cobalt	9.11		0.076	1.52	mg/Kg
O1233-06	B-P37A	SOIL	Copper	29.7		0.43	1.02	mg/Kg
O1233-06	B-P37A	SOIL	Iron	13600		3.99	5.08	mg/Kg
O1233-06	B-P37A	SOIL	Lead	33.5		0.26	0.61	mg/Kg
O1233-06	B-P37A	SOIL	Magnesium	2200		9.25	102	mg/Kg
O1233-06	B-P37A	SOIL	Manganese	328		0.11	1.02	mg/Kg
O1233-06	B-P37A	SOIL	Mercury	0.032		0.0040	0.015	mg/Kg
O1233-06	B-P37A	SOIL	Nickel	54.5		0.18	2.03	mg/Kg
O1233-06	B-P37A	SOIL	Potassium	569		23.7	102	mg/Kg
O1233-06	B-P37A	SOIL	Silver	0.87		0.079	0.51	mg/Kg
O1233-06	B-P37A	SOIL	Sodium	71.8	J	23.8	102	mg/Kg
O1233-06	B-P37A	SOIL	Vanadium	17.5		0.33	2.03	mg/Kg
O1233-06	B-P37A	SOIL	Zinc	50.8		0.20	2.03	mg/Kg

Client ID : B-P37B

O1233-07	B-P37B	SOIL	Aluminum	4240		2.40	5.42	mg/Kg
O1233-07	B-P37B	SOIL	Arsenic	1.84		0.23	1.08	mg/Kg
O1233-07	B-P37B	SOIL	Barium	15.8		0.78	5.42	mg/Kg
O1233-07	B-P37B	SOIL	Beryllium	0.51		0.023	0.33	mg/Kg
O1233-07	B-P37B	SOIL	Cadmium	0.23	J	0.029	0.33	mg/Kg
O1233-07	B-P37B	SOIL	Calcium	1010		7.74	108	mg/Kg
O1233-07	B-P37B	SOIL	Chromium	14.6		0.098	0.54	mg/Kg
O1233-07	B-P37B	SOIL	Cobalt	6.49		0.081	1.63	mg/Kg
O1233-07	B-P37B	SOIL	Copper	14.4		0.46	1.08	mg/Kg
O1233-07	B-P37B	SOIL	Iron	13300		4.26	5.42	mg/Kg
O1233-07	B-P37B	SOIL	Lead	7.88		0.28	0.65	mg/Kg
O1233-07	B-P37B	SOIL	Magnesium	2070		9.87	108	mg/Kg
O1233-07	B-P37B	SOIL	Manganese	71.3		0.12	1.08	mg/Kg
O1233-07	B-P37B	SOIL	Mercury	0.021		0.0040	0.015	mg/Kg
O1233-07	B-P37B	SOIL	Nickel	37.7		0.20	2.17	mg/Kg
O1233-07	B-P37B	SOIL	Potassium	569		25.3	108	mg/Kg

**Hit Summary Sheet**
SW-846**SDG No.:** O1233**Order ID:** O1233**Client:** Louis Berger U.S., Inc., A WSP Company**Project ID:** NYCDDC Phase II SCI Arthur Kill Road C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-07	B-P37B	SOIL	Silver	0.82		0.085	0.54	mg/Kg
O1233-07	B-P37B	SOIL	Sodium	59.0	J	25.4	108	mg/Kg
O1233-07	B-P37B	SOIL	Vanadium	17.1		0.35	2.17	mg/Kg
O1233-07	B-P37B	SOIL	Zinc	29.3		0.22	2.17	mg/Kg

Client ID : B-38A

O1233-08	B-38A	SOIL	Aluminum	9770		2.07	4.69	mg/Kg
O1233-08	B-38A	SOIL	Arsenic	5.73		0.20	0.94	mg/Kg
O1233-08	B-38A	SOIL	Barium	54.3		0.68	4.69	mg/Kg
O1233-08	B-38A	SOIL	Beryllium	0.93		0.020	0.28	mg/Kg
O1233-08	B-38A	SOIL	Cadmium	0.79		0.025	0.28	mg/Kg
O1233-08	B-38A	SOIL	Calcium	2820		6.69	93.7	mg/Kg
O1233-08	B-38A	SOIL	Chromium	40.9		0.084	0.47	mg/Kg
O1233-08	B-38A	SOIL	Cobalt	20.6		0.070	1.41	mg/Kg
O1233-08	B-38A	SOIL	Copper	21.6		0.39	0.94	mg/Kg
O1233-08	B-38A	SOIL	Iron	25800		3.68	4.69	mg/Kg
O1233-08	B-38A	SOIL	Lead	25.0		0.24	0.56	mg/Kg
O1233-08	B-38A	SOIL	Magnesium	4700		8.54	93.7	mg/Kg
O1233-08	B-38A	SOIL	Manganese	872		0.10	0.94	mg/Kg
O1233-08	B-38A	SOIL	Mercury	0.049		0.0040	0.015	mg/Kg
O1233-08	B-38A	SOIL	Nickel	207		0.17	1.87	mg/Kg
O1233-08	B-38A	SOIL	Potassium	877		21.8	93.7	mg/Kg
O1233-08	B-38A	SOIL	Silver	1.67		0.073	0.47	mg/Kg
O1233-08	B-38A	SOIL	Sodium	62.0	J	21.9	93.7	mg/Kg
O1233-08	B-38A	SOIL	Vanadium	29.6		0.30	1.87	mg/Kg
O1233-08	B-38A	SOIL	Zinc	47.9		0.19	1.87	mg/Kg

Client ID : B-P38B

O1233-09	B-P38B	SOIL	Aluminum	2410		2.41	5.46	mg/Kg
O1233-09	B-P38B	SOIL	Arsenic	4.14		0.23	1.09	mg/Kg
O1233-09	B-P38B	SOIL	Barium	41.9		0.79	5.46	mg/Kg
O1233-09	B-P38B	SOIL	Beryllium	0.66		0.023	0.33	mg/Kg
O1233-09	B-P38B	SOIL	Cadmium	0.37		0.029	0.33	mg/Kg
O1233-09	B-P38B	SOIL	Calcium	1190		7.80	109	mg/Kg
O1233-09	B-P38B	SOIL	Chromium	19.3		0.098	0.55	mg/Kg
O1233-09	B-P38B	SOIL	Cobalt	12.1		0.082	1.64	mg/Kg
O1233-09	B-P38B	SOIL	Copper	20.3		0.46	1.09	mg/Kg
O1233-09	B-P38B	SOIL	Iron	15000		4.29	5.46	mg/Kg
O1233-09	B-P38B	SOIL	Lead	9.01		0.28	0.66	mg/Kg
O1233-09	B-P38B	SOIL	Magnesium	5140		9.95	109	mg/Kg
O1233-09	B-P38B	SOIL	Manganese	391		0.12	1.09	mg/Kg
O1233-09	B-P38B	SOIL	Nickel	120		0.20	2.18	mg/Kg
O1233-09	B-P38B	SOIL	Potassium	640		25.4	109	mg/Kg



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: O1233

Order ID: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Project ID: NYCDDC Phase II SCI Arthur Kill Road C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
O1233-09	B-P38B	SOIL	Silver	0.87		0.085	0.55	mg/Kg
O1233-09	B-P38B	SOIL	Sodium	75.2	J	25.5	109	mg/Kg
O1233-09	B-P38B	SOIL	Vanadium	14.3		0.35	2.18	mg/Kg
O1233-09	B-P38B	SOIL	Zinc	31.3		0.22	2.18	mg/Kg
Client ID : B-P38C								
O1233-11	B-P38C	SOIL	Aluminum	2800		2.40	5.44	mg/Kg
O1233-11	B-P38C	SOIL	Arsenic	3.54		0.23	1.09	mg/Kg
O1233-11	B-P38C	SOIL	Barium	29.2		0.78	5.44	mg/Kg
O1233-11	B-P38C	SOIL	Beryllium	0.69		0.023	0.33	mg/Kg
O1233-11	B-P38C	SOIL	Cadmium	0.43		0.029	0.33	mg/Kg
O1233-11	B-P38C	SOIL	Calcium	549		7.77	109	mg/Kg
O1233-11	B-P38C	SOIL	Chromium	15.3		0.098	0.54	mg/Kg
O1233-11	B-P38C	SOIL	Cobalt	9.31		0.082	1.63	mg/Kg
O1233-11	B-P38C	SOIL	Copper	19.2		0.46	1.09	mg/Kg
O1233-11	B-P38C	SOIL	Iron	15000		4.28	5.44	mg/Kg
O1233-11	B-P38C	SOIL	Lead	9.68		0.28	0.65	mg/Kg
O1233-11	B-P38C	SOIL	Magnesium	2330		9.91	109	mg/Kg
O1233-11	B-P38C	SOIL	Manganese	551		0.12	1.09	mg/Kg
O1233-11	B-P38C	SOIL	Nickel	95.3		0.20	2.18	mg/Kg
O1233-11	B-P38C	SOIL	Potassium	692		25.4	109	mg/Kg
O1233-11	B-P38C	SOIL	Silver	0.87		0.085	0.54	mg/Kg
O1233-11	B-P38C	SOIL	Sodium	33.2	J	25.5	109	mg/Kg
O1233-11	B-P38C	SOIL	Vanadium	15.9		0.35	2.18	mg/Kg
O1233-11	B-P38C	SOIL	Zinc	33.2		0.22	2.18	mg/Kg



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Hit Summary Sheet
SW-846

SDG No.: O1233

Order ID: O1233

Client: Louis Berger U.S., Inc., A WSP Company

Project ID: NYCDDC Phase II SCI Arthur Kill Road C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WC-38								
O1233-10	WC-38	TCLP	Barium	1440		77.9	500	ug/L
O1233-10	WC-38	TCLP	Chromium	27.0	J	10.4	50.0	ug/L