Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-057 (18"-24")**

Lab Sample ID: 460-158175-33 | Date Sampled: 06/12/2018 1305
Client Matrix: Solid | % Moisture: 11.9 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	5.0			Initial Weight/Volume:	0.63 g
Analysis Date:	06/15/2018 1157			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.2		0.054	0.092

Client: PW Grosser Consulting

Job Number: 460-158175-1

Client Sample ID: **SS-019 (30"-36")**

Lab Sample ID: 460-158175-36
Client Matrix: Solid
% Moisture: 10.2

Date Sampled: 06/12/2018 1325
Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	2.0			Initial Weight/Volume:	0.66 g
Analysis Date:	06/15/2018 1158			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.95		0.020	0.034

Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-019 (36"-42")**

Lab Sample ID: 460-158175-37 | Date Sampled: 06/12/2018 1330
Client Matrix: Solid | % Moisture: 9.9 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	3.0			Initial Weight/Volume:	0.66 g
Analysis Date:	06/25/2018 1159			Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.8		0.030	0.051

Client: PW Grosser Consulting

Job Number: 460-158175-1

Client Sample ID: **SS-058 (0"-3")**

Lab Sample ID: 460-158175-38
Client Matrix: Solid

% Moisture: 10.8

Date Sampled: 06/12/2018 1340
Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.67 g
Analysis Date:	06/15/2018 1201			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.17		0.010	0.017

Client: PW Grosser Consulting Job Number: 460-158175-1

Client Sample ID: SS-021 (30"-36")

Lab Sample ID: 460-158175-39 Date Sampled: 06/12/2018 1400
Client Matrix: Solid % Moisture: 14.1 Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	06/15/2018 0922			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.78		0.012	0.020

Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-034 (30"-36")**

Lab Sample ID: 460-158175-41 | Date Sampled: 06/12/2018 1430
Client Matrix: Solid | % Moisture: 12.0 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	06/15/2018 0925			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.20		0.011	0.018

Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-059 (0"-3")**

Lab Sample ID: 460-158175-43 | Date Sampled: 06/12/2018 1455
Client Matrix: Solid | % Moisture: 8.6 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	2.0			Initial Weight/Volume:	0.61 g
Analysis Date:	06/15/2018 1203			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.0		0.022	0.037

Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-059 (18"-24")**

Lab Sample ID: 460-158175-44 | Date Sampled: 06/12/2018 1500
Client Matrix: Solid | % Moisture: 7.5 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	06/15/2018 1206			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.47		0.011	0.018

Client: PW Grosser Consulting Job Number: 460-158175-1

Client Sample ID: SS-010 (30"-36")

Lab Sample ID: 460-158175-47 Date Sampled: 06/12/2018 1530
Client Matrix: Solid % Moisture: 10.1 Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	06/15/2018 0954			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.26		0.011	0.018

Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-060 (0"-3")**

Lab Sample ID: 460-158175-49 | Date Sampled: 06/12/2018 1600
Client Matrix: Solid | % Moisture: 8.8 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	20			Initial Weight/Volume:	0.67 g
Analysis Date:	06/15/2018 1208			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		5.7		0.20	0.33

Client: PW Grosser Consulting Job Number: 460-158175-1

Client Sample ID: SS-060 (18"-24")

Lab Sample ID: 460-158175-50 Date Sampled: 06/12/2018 1605
Client Matrix: Solid % Moisture: 11.3 Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	20			Initial Weight/Volume:	0.62 g
Analysis Date:	06/15/2018 1211			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		7.5		0.22	0.37

Client: PW Grosser Consulting | Job Number: 460-158175-1

Client Sample ID: **SS-060 (30"-36")**

Lab Sample ID: 460-158175-51 | Date Sampled: 06/12/2018 1610
Client Matrix: Solid | % Moisture: 9.9 | Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	06/25/2018 1201			Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.10		0.011	0.018

Client: PW Grosser Consulting

Job Number: 460-158175-1

Client Sample ID: **SS-060 (36"-42")**

Lab Sample ID: 460-158175-52
Client Matrix: Solid
% Moisture: 8.5

Date Sampled: 06/12/2018 1615
Date Received: 06/12/2018 2100

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	06/25/2018 1130			Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.21		0.010	0.018

General Chemistry

Client Sample ID: **SS-049 (0"-3")**

Lab Sample ID: 460-158175-2 Date Sampled: 06/12/2018 1000
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	86.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-050 (0"-3")**

Lab Sample ID: 460-158175-3 Date Sampled: 06/12/2018 1010
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	13.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	86.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-001 (30"-36")**

Lab Sample ID: 460-158175-4 Date Sampled: 06/12/2018 1020
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	94.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-051 (0"-3")**

Lab Sample ID: 460-158175-6 Date Sampled: 06/12/2018 1030
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	22.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	77.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-052 (0"-3")

Lab Sample ID: 460-158175-7 Date Sampled: 06/12/2018 1050
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	86.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-052 (18"-24")**

Lab Sample ID: 460-158175-8 Date Sampled: 06/12/2018 1055
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	94.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-025 (30"-36")**

Lab Sample ID: 460-158175-11 Date Sampled: 06/12/2018 0815
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	13.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	86.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-025 (36"-42")

Lab Sample ID: 460-158175-12 Date Sampled: 06/12/2018 0820
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N
Percent Solids	87.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-046 (0"-3")**

Lab Sample ID: 460-158175-13 Date Sampled: 06/12/2018 0835
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	90.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-047 (0"-3")

Lab Sample ID: 460-158175-14 Date Sampled: 06/12/2018 0850
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	92.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-026 (30"-36")**

Lab Sample ID: 460-158175-15 Date Sampled: 06/12/2018 0900
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	92.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-026 (36"-42")**

Lab Sample ID: 460-158175-16 Date Sampled: 06/12/2018 0905
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N
Percent Solids	94.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-027 (30"-36")

Lab Sample ID: 460-158175-17 Date Sampled: 06/12/2018 0925
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	94.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-048 (0"-3")**

Lab Sample ID: 460-158175-19 Date Sampled: 06/12/2018 0935
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	85.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-028 (30"-36")**

Lab Sample ID: 460-158175-20 Date Sampled: 06/12/2018 0945
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	96.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-053 (0"-3")**

Lab Sample ID: 460-158175-21 Date Sampled: 06/12/2018 1115
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	95.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-015 (30"-36")**

Lab Sample ID: 460-158175-22 Date Sampled: 06/12/2018 1130
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N
Percent Solids	94.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527761	Analysis Date: 06/14/2018 0926						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-015 (36"-42")**

Lab Sample ID: 460-158175-23 Date Sampled: 06/12/2018 1135
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N
Percent Solids	92.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-054 (0"-3")

Lab Sample ID: 460-158175-24 Date Sampled: 06/12/2018 1200
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	82.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-054 (18"-24")**

Lab Sample ID: 460-158175-25 Date Sampled: 06/12/2018 1202
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	95.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-018 (30"-36")**

Lab Sample ID: 460-158175-28 Date Sampled: 06/12/2018 1215
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	90.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-055 (0"-3")

Lab Sample ID: 460-158175-30 Date Sampled: 06/12/2018 1230
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	84.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-056 (0"-3")**

Lab Sample ID: 460-158175-31 Date Sampled: 06/12/2018 1250
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	85.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-057 (0"-3")**

Lab Sample ID: 460-158175-32 Date Sampled: 06/12/2018 1300
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	84.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-057 (18"-24")**

Lab Sample ID: 460-158175-33 Date Sampled: 06/12/2018 1305
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	88.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019 (30"-36")**

Lab Sample ID: 460-158175-36 Date Sampled: 06/12/2018 1325
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	89.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019 (36"-42")**

Lab Sample ID: 460-158175-37 Date Sampled: 06/12/2018 1330
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N
Percent Solids	90.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-058 (0"-3")**

Lab Sample ID: 460-158175-38 Date Sampled: 06/12/2018 1340
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	89.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-021 (30"-36")**

Lab Sample ID: 460-158175-39 Date Sampled: 06/12/2018 1400
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	85.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-034 (30"-36")**

Lab Sample ID: 460-158175-41 Date Sampled: 06/12/2018 1430
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	88.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-059 (0"-3")**

Lab Sample ID: 460-158175-43 Date Sampled: 06/12/2018 1455
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527840	Analysis Date: 06/14/2018 1340						DryWt Corrected: N
Percent Solids	91.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527840	Analysis Date: 06/14/2018 1340						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-059 (18"-24")**

Lab Sample ID: 460-158175-44 Date Sampled: 06/12/2018 1500
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527840	Analysis Date: 06/14/2018 1340						DryWt Corrected: N
Percent Solids	92.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527840	Analysis Date: 06/14/2018 1340						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-010 (30"-36")**

Lab Sample ID: 460-158175-47 Date Sampled: 06/12/2018 1530
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527748	Analysis Date: 06/14/2018 0839						DryWt Corrected: N
Percent Solids	89.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527748	Analysis Date: 06/14/2018 0839						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-060 (0"-3")**

Lab Sample ID: 460-158175-49 Date Sampled: 06/12/2018 1600
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527840	Analysis Date: 06/14/2018 1340						DryWt Corrected: N
Percent Solids	91.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527840	Analysis Date: 06/14/2018 1340						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-060 (18"-24")

Lab Sample ID: 460-158175-50 Date Sampled: 06/12/2018 1605
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N
Percent Solids	88.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-527770	Analysis Date: 06/14/2018 0945						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-060 (30"-36")**

Lab Sample ID: 460-158175-51 Date Sampled: 06/12/2018 1610
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N
Percent Solids	90.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530084	Analysis Date: 06/22/2018 0922						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-060 (36"-42")

Lab Sample ID: 460-158175-52 Date Sampled: 06/12/2018 1615
Client Matrix: Solid Date Received: 06/12/2018 2100

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530178	Analysis Date: 06/22/2018 1440						DryWt Corrected: N
Percent Solids	91.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-530178	Analysis Date: 06/22/2018 1440						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: PW Grosser Consulting Job Number: 460-158175-1

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-528294					
LCS 460-528294/2-A	Lab Control Sample	T	Solid	3546	
MB 460-528294/1-A	Method Blank	T	Solid	3546	
460-158128-B-20-A MS	Matrix Spike	T	Solid	3546	
460-158128-B-20-B MSD	Matrix Spike Duplicate	T	Solid	3546	
460-158175-2	SS-049 (0"-3")	T	Solid	3546	
460-158175-3	SS-050 (0"-3")	T	Solid	3546	
460-158175-6	SS-051 (0"-3")	T	Solid	3546	
460-158175-13	SS-046 (0"-3")	T	Solid	3546	
460-158175-14	SS-047 (0"-3")	T	Solid	3546	
460-158175-19	SS-048 (0"-3")	T	Solid	3546	
460-158175-21	SS-053 (0"-3")	T	Solid	3546	
460-158175-30	SS-055 (0"-3")	T	Solid	3546	
460-158175-31	SS-056 (0"-3")	T	Solid	3546	
460-158175-38	SS-058 (0"-3")	T	Solid	3546	
Analysis Batch:460-528453					
LCS 460-528294/2-A	Lab Control Sample	T	Solid	8081B	460-528294
MB 460-528294/1-A	Method Blank	T	Solid	8081B	460-528294
460-158128-B-20-A MS	Matrix Spike	T	Solid	8081B	460-528294
460-158128-B-20-B MSD	Matrix Spike Duplicate	T	Solid	8081B	460-528294
460-158175-2	SS-049 (0"-3")	T	Solid	8081B	460-528294
460-158175-3	SS-050 (0"-3")	T	Solid	8081B	460-528294
460-158175-6	SS-051 (0"-3")	T	Solid	8081B	460-528294
460-158175-13	SS-046 (0"-3")	T	Solid	8081B	460-528294
460-158175-14	SS-047 (0"-3")	T	Solid	8081B	460-528294
460-158175-19	SS-048 (0"-3")	T	Solid	8081B	460-528294
460-158175-21	SS-053 (0"-3")	T	Solid	8081B	460-528294
460-158175-30	SS-055 (0"-3")	T	Solid	8081B	460-528294
460-158175-31	SS-056 (0"-3")	T	Solid	8081B	460-528294
460-158175-38	SS-058 (0"-3")	T	Solid	8081B	460-528294

Report Basis
T = Total

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-527687					
LCSSRM 460-527687/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-527687/1-A	Method Blank	T	Solid	7471B	
460-158155-A-49-D DU	Duplicate	T	Solid	7471B	
460-158155-A-49-E MS	Matrix Spike	T	Solid	7471B	
460-158175-2	SS-049 (0"-3")	T	Solid	7471B	
460-158175-3	SS-050 (0"-3")	T	Solid	7471B	
460-158175-4	SS-001 (30"-36")	T	Solid	7471B	
460-158175-6	SS-051 (0"-3")	T	Solid	7471B	
460-158175-7	SS-052 (0"-3")	T	Solid	7471B	
460-158175-8	SS-052 (18"-24")	T	Solid	7471B	
460-158175-13	SS-046 (0"-3")	T	Solid	7471B	
460-158175-14	SS-047 (0"-3")	T	Solid	7471B	
460-158175-15	SS-026 (30"-36")	T	Solid	7471B	
460-158175-17	SS-027 (30"-36")	T	Solid	7471B	
Analysis Batch:460-527805					
LCSSRM 460-527687/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-527687
MB 460-527687/1-A	Method Blank	T	Solid	7471B	460-527687
460-158155-A-49-D DU	Duplicate	T	Solid	7471B	460-527687
460-158155-A-49-E MS	Matrix Spike	T	Solid	7471B	460-527687
460-158175-2	SS-049 (0"-3")	T	Solid	7471B	460-527687
460-158175-3	SS-050 (0"-3")	T	Solid	7471B	460-527687
460-158175-4	SS-001 (30"-36")	T	Solid	7471B	460-527687
460-158175-6	SS-051 (0"-3")	T	Solid	7471B	460-527687
460-158175-7	SS-052 (0"-3")	T	Solid	7471B	460-527687
460-158175-8	SS-052 (18"-24")	T	Solid	7471B	460-527687
460-158175-13	SS-046 (0"-3")	T	Solid	7471B	460-527687
460-158175-14	SS-047 (0"-3")	T	Solid	7471B	460-527687
460-158175-15	SS-026 (30"-36")	T	Solid	7471B	460-527687
460-158175-17	SS-027 (30"-36")	T	Solid	7471B	460-527687
Prep Batch: 460-527971					
LCSSRM 460-527971/2-A ^4	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-527971/1-A ^2	Method Blank	T	Solid	3050B	
460-158175-17	SS-027 (30"-36")	T	Solid	3050B	
460-158175-17DU	Duplicate	T	Solid	3050B	
460-158175-17MS	Matrix Spike	T	Solid	3050B	

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-528000					
LCSSRM 460-528000/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-528000/10-A	Method Blank	T	Solid	7471B	
460-156854-A-2-D DU	Duplicate	T	Solid	7471B	
460-156854-A-2-E MS	Matrix Spike	T	Solid	7471B	
460-158175-11	SS-025 (30"-36")	T	Solid	7471B	
460-158175-19	SS-048 (0"-3")	T	Solid	7471B	
460-158175-20	SS-028 (30"-36")	T	Solid	7471B	
460-158175-21	SS-053 (0"-3")	T	Solid	7471B	
460-158175-22	SS-015 (30"-36")	T	Solid	7471B	
460-158175-24	SS-054 (0"-3")	T	Solid	7471B	
460-158175-25	SS-054 (18"-24")	T	Solid	7471B	
460-158175-28	SS-018 (30"-36")	T	Solid	7471B	
460-158175-30	SS-055 (0"-3")	T	Solid	7471B	
460-158175-31	SS-056 (0"-3")	T	Solid	7471B	
460-158175-32	SS-057 (0"-3")	T	Solid	7471B	
460-158175-33	SS-057 (18"-24")	T	Solid	7471B	
460-158175-36	SS-019 (30"-36")	T	Solid	7471B	
460-158175-38	SS-058 (0"-3")	T	Solid	7471B	
460-158175-39	SS-021 (30"-36")	T	Solid	7471B	
460-158175-41	SS-034 (30"-36")	T	Solid	7471B	
Prep Batch: 460-528002					
LCSSRM 460-528002/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-528002/1-A	Method Blank	T	Solid	7471B	
460-157002-A-4-N DU	Duplicate	T	Solid	7471B	
460-157002-A-4-O MS	Matrix Spike	T	Solid	7471B	
460-157002-B-4-AA MSD	Matrix Spike Duplicate	T	Solid	7471B	
460-158175-43	SS-059 (0"-3")	T	Solid	7471B	
460-158175-44	SS-059 (18"-24")	T	Solid	7471B	
460-158175-47	SS-010 (30"-36")	T	Solid	7471B	
460-158175-49	SS-060 (0"-3")	T	Solid	7471B	
460-158175-50	SS-060 (18"-24")	T	Solid	7471B	

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:460-528174					
LCSSRM 460-528000/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	460-528000
MB 460-528000/10-A	Method Blank	T	Solid	7471B	460-528000
LCSSRM 460-528002/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-528002
MB 460-528002/1-A	Method Blank	T	Solid	7471B	460-528002
460-156854-A-2-D DU	Duplicate	T	Solid	7471B	460-528000
460-156854-A-2-E MS	Matrix Spike	T	Solid	7471B	460-528000
460-157002-A-4-N DU	Duplicate	T	Solid	7471B	460-528002
460-157002-A-4-O MS	Matrix Spike	T	Solid	7471B	460-528002
460-157002-B-4-AA MSD	Matrix Spike Duplicate	T	Solid	7471B	460-528002
460-158175-11	SS-025 (30"-36")	T	Solid	7471B	460-528000
460-158175-19	SS-048 (0"-3")	T	Solid	7471B	460-528000
460-158175-20	SS-028 (30"-36")	T	Solid	7471B	460-528000
460-158175-21	SS-053 (0"-3")	T	Solid	7471B	460-528000
460-158175-22	SS-015 (30"-36")	T	Solid	7471B	460-528000
460-158175-24	SS-054 (0"-3")	T	Solid	7471B	460-528000
460-158175-25	SS-054 (18"-24")	T	Solid	7471B	460-528000
460-158175-28	SS-018 (30"-36")	T	Solid	7471B	460-528000
460-158175-30	SS-055 (0"-3")	T	Solid	7471B	460-528000
460-158175-31	SS-056 (0"-3")	T	Solid	7471B	460-528000
460-158175-32	SS-057 (0"-3")	T	Solid	7471B	460-528000
460-158175-33	SS-057 (18"-24")	T	Solid	7471B	460-528000
460-158175-36	SS-019 (30"-36")	T	Solid	7471B	460-528000
460-158175-38	SS-058 (0"-3")	T	Solid	7471B	460-528000
460-158175-39	SS-021 (30"-36")	T	Solid	7471B	460-528000
460-158175-41	SS-034 (30"-36")	T	Solid	7471B	460-528000
460-158175-43	SS-059 (0"-3")	T	Solid	7471B	460-528002
460-158175-44	SS-059 (18"-24")	T	Solid	7471B	460-528002
460-158175-47	SS-010 (30"-36")	T	Solid	7471B	460-528002
460-158175-49	SS-060 (0"-3")	T	Solid	7471B	460-528002
460-158175-50	SS-060 (18"-24")	T	Solid	7471B	460-528002
Analysis Batch:460-528214					
LCSSRM 460-527971/2-A ^4	LCS-Certified Reference Material	T	Solid	6010C	460-527971
MB 460-527971/1-A ^2	Method Blank	T	Solid	6010C	460-527971
460-158175-17	SS-027 (30"-36")	T	Solid	6010C	460-527971
460-158175-17DU	Duplicate	T	Solid	6010C	460-527971
460-158175-17MS	Matrix Spike	T	Solid	6010C	460-527971

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-530662					
LCSSRM 460-530662/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-530662/1-A	Method Blank	T	Solid	7471B	
460-158175-12	SS-025 (36"-42")	T	Solid	7471B	
460-158175-16	SS-026 (36"-42")	T	Solid	7471B	
460-158175-23	SS-015 (36"-42")	T	Solid	7471B	
460-158175-37	SS-019 (36"-42")	T	Solid	7471B	
460-158175-51	SS-060 (30"-36")	T	Solid	7471B	
460-158175-52	SS-060 (36"-42")	T	Solid	7471B	
460-158321-D-1-M DU	Duplicate	T	Solid	7471B	
460-158321-D-1-N MS	Matrix Spike	T	Solid	7471B	
Analysis Batch:460-530775					
LCSSRM 460-530662/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-530662
MB 460-530662/1-A	Method Blank	T	Solid	7471B	460-530662
460-158175-12	SS-025 (36"-42")	T	Solid	7471B	460-530662
460-158175-16	SS-026 (36"-42")	T	Solid	7471B	460-530662
460-158175-23	SS-015 (36"-42")	T	Solid	7471B	460-530662
460-158175-37	SS-019 (36"-42")	T	Solid	7471B	460-530662
460-158175-51	SS-060 (30"-36")	T	Solid	7471B	460-530662
460-158175-52	SS-060 (36"-42")	T	Solid	7471B	460-530662
460-158321-D-1-M DU	Duplicate	T	Solid	7471B	460-530662
460-158321-D-1-N MS	Matrix Spike	T	Solid	7471B	460-530662

Report Basis
T = Total

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-527748					
460-158127-A-31 DU	Duplicate	T	Solid	Moisture	
460-158175-47	SS-010 (30"-36")	T	Solid	Moisture	
Analysis Batch:460-527761					
460-158175-2	SS-049 (0"-3")	T	Solid	Moisture	
460-158175-3	SS-050 (0"-3")	T	Solid	Moisture	
460-158175-4	SS-001 (30"-36")	T	Solid	Moisture	
460-158175-6	SS-051 (0"-3")	T	Solid	Moisture	
460-158175-7	SS-052 (0"-3")	T	Solid	Moisture	
460-158175-8	SS-052 (18"-24")	T	Solid	Moisture	
460-158175-11	SS-025 (30"-36")	T	Solid	Moisture	
460-158175-13	SS-046 (0"-3")	T	Solid	Moisture	
460-158175-14	SS-047 (0"-3")	T	Solid	Moisture	
460-158175-15	SS-026 (30"-36")	T	Solid	Moisture	
460-158175-17	SS-027 (30"-36")	T	Solid	Moisture	
460-158175-19	SS-048 (0"-3")	T	Solid	Moisture	
460-158175-20	SS-028 (30"-36")	T	Solid	Moisture	
460-158175-21	SS-053 (0"-3")	T	Solid	Moisture	
460-158175-22	SS-015 (30"-36")	T	Solid	Moisture	
460-158175-22DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-527770					
460-158175-24	SS-054 (0"-3")	T	Solid	Moisture	
460-158175-25	SS-054 (18"-24")	T	Solid	Moisture	
460-158175-28	SS-018 (30"-36")	T	Solid	Moisture	
460-158175-30	SS-055 (0"-3")	T	Solid	Moisture	
460-158175-31	SS-056 (0"-3")	T	Solid	Moisture	
460-158175-32	SS-057 (0"-3")	T	Solid	Moisture	
460-158175-33	SS-057 (18"-24")	T	Solid	Moisture	
460-158175-36	SS-019 (30"-36")	T	Solid	Moisture	
460-158175-38	SS-058 (0"-3")	T	Solid	Moisture	
460-158175-39	SS-021 (30"-36")	T	Solid	Moisture	
460-158175-41	SS-034 (30"-36")	T	Solid	Moisture	
460-158175-50	SS-060 (18"-24")	T	Solid	Moisture	
460-158205-D-2 DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-527840					
460-158175-43	SS-059 (0"-3")	T	Solid	Moisture	
460-158175-44	SS-059 (18"-24")	T	Solid	Moisture	
460-158175-49	SS-060 (0"-3")	T	Solid	Moisture	
460-158228-D-6 DU	Duplicate	T	Solid	Moisture	

Client: PW Grosser Consulting Job Number: 460-158175-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-530084					
460-158175-12	SS-025 (36"-42")	T	Solid	Moisture	
460-158175-16	SS-026 (36"-42")	T	Solid	Moisture	
460-158175-23	SS-015 (36"-42")	T	Solid	Moisture	
460-158175-37	SS-019 (36"-42")	T	Solid	Moisture	
460-158175-51	SS-060 (30"-36")	T	Solid	Moisture	
460-158256-A-4 DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-530178					
460-158175-52	SS-060 (36"-42")	T	Solid	Moisture	
460-158796-A-6 DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: PW Grosser Consulting

Job Number: 460-158175-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCBP1 %Rec	DCBP2 %Rec	TCX1 %Rec	TCX2 %Rec
460-158175-2	SS-049 (0"-3")	97	96	101	102
460-158175-3	SS-050 (0"-3")	101	102	106	102
460-158175-6	SS-051 (0"-3")	107	109	114	110
460-158175-13	SS-046 (0"-3")	92	95	100	99
460-158175-14	SS-047 (0"-3")	101	101	106	102
460-158175-19	SS-048 (0"-3")	136	141	143	145
460-158175-21	SS-053 (0"-3")	109	113	114	116
460-158175-30	SS-055 (0"-3")	105	105	110	108
460-158175-31	SS-056 (0"-3")	108	114	115	114
460-158175-38	SS-058 (0"-3")	104	106	110	105
MB 460-528294/1-A		83	83	93	87
LCS 460-528294/2-A		91	98	102	100
460-158128-B-20-A MS		103	103	111	105
460-158128-B-20-B MSD		102	101	106	101

Surrogate	Acceptance Limits
DCBP = DCB Decachlorobiphenyl	69-150
TCX = Tetrachloro-m-xylene	74-150

Client: PW Grosser Consulting

Job Number: 460-158175-1

Method Blank - Batch: 460-528294

Method: 8081B
Preparation: 3546

Lab Sample ID:	MB 460-528294/1-A	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922212.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0000 g
Analysis Date:	06/16/2018 2054	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.0067	U	0.0011	0.0067
4,4'-DDE	0.0067	U	0.00079	0.0067
4,4'-DDT	0.0067	U	0.0012	0.0067
Aldrin	0.0067	U	0.0010	0.0067
alpha-BHC	0.0020	U	0.00068	0.0020
beta-BHC	0.0020	U	0.00075	0.0020
Chlordane (technical)	0.067	U	0.016	0.067
delta-BHC	0.0020	U	0.00041	0.0020
Dieldrin	0.0020	U	0.00087	0.0020
Endosulfan I	0.0067	U	0.0010	0.0067
Endosulfan II	0.0067	U	0.0017	0.0067
Endosulfan sulfate	0.0067	U	0.00084	0.0067
Endrin	0.0067	U	0.00096	0.0067
Endrin aldehyde	0.0067	U	0.0016	0.0067
Endrin ketone	0.0067	U	0.0013	0.0067
gamma-BHC (Lindane)	0.0020	U	0.00062	0.0020
Heptachlor	0.0067	U	0.00079	0.0067
Heptachlor epoxide	0.0067	U	0.0010	0.0067
Methoxychlor	0.0067	U	0.0015	0.0067
Toxaphene	0.067	U	0.024	0.067

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	83	69 - 150
Tetrachloro-m-xylene	93	74 - 150

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	83	69 - 150
Tetrachloro-m-xylene	87	74 - 150

Lab Control Sample - Batch: 460-528294

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-528294/2-A	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922213.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0000 g
Analysis Date:	06/16/2018 2107	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	0.133	0.165	123	67 - 130	
4,4'-DDE	0.133	0.161	121	70 - 127	
4,4'-DDT	0.133	0.147	110	70 - 122	
Aldrin	0.133	0.159	120	66 - 137	
alpha-BHC	0.133	0.169	127	65 - 142	
beta-BHC	0.133	0.166	125	70 - 132	
delta-BHC	0.133	0.168	126	65 - 136	
Dieldrin	0.133	0.161	121	70 - 134	
Endosulfan I	0.133	0.159	119	70 - 136	
Endosulfan II	0.133	0.166	124	72 - 127	
Endosulfan sulfate	0.133	0.145	109	71 - 128	
Endrin	0.133	0.153	115	74 - 129	
Endrin aldehyde	0.133	0.170	128	71 - 129	
Endrin ketone	0.133	0.180	135	68 - 135	
gamma-BHC (Lindane)	0.133	0.164	123	68 - 136	
Heptachlor	0.133	0.155	116	68 - 132	
Heptachlor epoxide	0.133	0.158	119	72 - 131	
Methoxychlor	0.133	0.151	113	63 - 135	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	98	69 - 150
Tetrachloro-m-xylene	102	74 - 150

Lab Control Sample - Batch: 460-528294

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-528294/2-A	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922213.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0000 g
Analysis Date:	06/16/2018 2107	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	0.133	0.154	115	67 - 130	
4,4'-DDE	0.133	0.140	105	70 - 127	
4,4'-DDT	0.133	0.133	100	70 - 122	
Aldrin	0.133	0.147	110	66 - 137	
alpha-BHC	0.133	0.158	119	65 - 142	
beta-BHC	0.133	0.152	114	70 - 132	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Lab Control Sample - Batch: 460-528294

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-528294/2-A	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922213.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0000 g
Analysis Date:	06/16/2018 2107	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
delta-BHC	0.133	0.154	115	65 - 136	
Dieldrin	0.133	0.142	107	70 - 134	
Endosulfan I	0.133	0.145	109	70 - 136	
Endosulfan II	0.133	0.148	111	72 - 127	
Endosulfan sulfate	0.133	0.142	107	71 - 128	
Endrin	0.133	0.134	100	74 - 129	
Endrin aldehyde	0.133	0.154	116	71 - 129	
Endrin ketone	0.133	0.159	119	68 - 135	
gamma-BHC (Lindane)	0.133	0.150	112	68 - 136	
Heptachlor	0.133	0.144	108	68 - 132	
Heptachlor epoxide	0.133	0.142	107	72 - 131	
Methoxychlor	0.133	0.125	94	63 - 135	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	91	69 - 150
Tetrachloro-m-xylene	100	74 - 150

Client: PW Grosser Consulting Job Number: 460-158175-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-528294

Method: 8081B
Preparation: 3546

MS Lab Sample ID:	460-158128-B-20-A MS	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922214.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0018 g
Analysis Date:	06/16/2018 2120			Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	460-158128-B-20-B MSD	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922215.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0075 g
Analysis Date:	06/16/2018 2132			Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	123	127	67 - 130	3	30		
4,4'-DDE	108	116	70 - 127	7	30		
4,4'-DDT	97	98	70 - 122	1	30		
Aldrin	104	108	66 - 137	4	30		
alpha-BHC	111	115	65 - 142	4	30		
beta-BHC	105	110	70 - 132	5	30		
delta-BHC	109	114	65 - 136	4	30		
Dieldrin	101	105	70 - 134	4	30		
Endosulfan I	116	118	70 - 136	2	30		
Endosulfan II	112	113	72 - 127	1	30		
Endosulfan sulfate	99	102	71 - 128	4	30		
Endrin	114	116	74 - 129	2	30		
Endrin aldehyde	109	113	71 - 129	3	30		
Endrin ketone	113	120	68 - 135	6	30		
gamma-BHC (Lindane)	107	111	68 - 136	4	30		
Heptachlor	99	104	68 - 132	4	30		
Heptachlor epoxide	101	105	72 - 131	3	30		
Methoxychlor	97	103	63 - 135	5	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	103	102	69 - 150
Tetrachloro-m-xylene	111	106	74 - 150

Client: PW Grosser Consulting Job Number: 460-158175-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-528294

Method: 8081B
Preparation: 3546

MS Lab Sample ID:	460-158128-B-20-A MS	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922214.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0018 g
Analysis Date:	06/16/2018 2120			Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

MSD Lab Sample ID:	460-158128-B-20-B MSD	Analysis Batch:	460-528453	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-528294	Lab File ID:	5F922215.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0075 g
Analysis Date:	06/16/2018 2132			Final Weight/Volume:	10 mL
Prep Date:	06/15/2018 2137			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	121	126	67 - 130	4	30		
4,4'-DDE	104	106	70 - 127	2	30		
4,4'-DDT	91	93	70 - 122	2	30		
Aldrin	100	105	66 - 137	4	30		
alpha-BHC	109	112	65 - 142	2	30		
beta-BHC	101	104	70 - 132	3	30		
delta-BHC	105	110	65 - 136	4	30		
Dieldrin	95	99	70 - 134	5	30		
Endosulfan I	94	103	70 - 136	9	30		
Endosulfan II	103	106	72 - 127	3	30		
Endosulfan sulfate	91	97	71 - 128	6	30		
Endrin	104	107	74 - 129	2	30		
Endrin aldehyde	103	107	71 - 129	4	30		
Endrin ketone	107	111	68 - 135	4	30		
gamma-BHC (Lindane)	104	107	68 - 136	3	30		
Heptachlor	96	100	68 - 132	4	30		
Heptachlor epoxide	97	103	72 - 131	6	30		
Methoxychlor	89	92	63 - 135	3	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	103	101	69 - 150
Tetrachloro-m-xylene	105	101	74 - 150

Client: PW Grosser Consulting Job Number: 460-158175-1

Method Blank - Batch: 460-527971

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 460-527971/1-A ^2	Analysis Batch:	460-528214	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-527971	Lab File ID:	528132D1.asc
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	06/15/2018 1813	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 2045				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	1.5	U	0.37	1.5

LCS-Certified Reference Material - Batch: 460-527971

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCSSRM 460-527971/2-A	Analysis Batch:	460-528214	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-527971	Lab File ID:	528132D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	06/15/2018 1758	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 2045				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	60.2	54.88	91.1	82.6 - 117.4	

Matrix Spike - Batch: 460-527971

Method: 6010C
Preparation: 3050B

Lab Sample ID:	460-158175-17	Analysis Batch:	460-528214	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-527971	Lab File ID:	528132D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.29 g
Analysis Date:	06/15/2018 1731	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 2045				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.3	J	164	155.9	94	75 - 125	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-527971

Method: 6010C
Preparation: 3050B

Lab Sample ID:	460-158175-17	Analysis Batch:	460-528214	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-527971	Lab File ID:	528132D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.27 g
Analysis Date:	06/15/2018 1735	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 2045				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	1.3	J	1.10	19	20	J

Client: PW Grosser Consulting Job Number: 460-158175-1

Method Blank - Batch: 460-527687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-527687/1-A	Analysis Batch:	460-527805	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-527687	Lab File ID:	527672HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/14/2018 0959	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 0511				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-527687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-527687/2-A	Analysis Batch:	460-527805	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-527687	Lab File ID:	527672HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/14/2018 1000	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 0511				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	12.99	110.1	70.3 - 129.7	

Matrix Spike - Batch: 460-527687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158155-A-49-E MS	Analysis Batch:	460-527805	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-527687	Lab File ID:	527672HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	06/14/2018 1006	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 0511				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.019	U	0.0913	0.104	114	75 - 125	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-527687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158155-A-49-D DU	Analysis Batch:	460-527805	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-527687	Lab File ID:	527672HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	06/14/2018 1004	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/14/2018 0511				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.019	U	0.019	NC	20	U

Method Blank - Batch: 460-528000

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-528000/10-A	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/15/2018 0820	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-528000

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-528000/11-	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/15/2018 0822	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	11.75	99.6	70.3 - 129.7	

Matrix Spike - Batch: 460-528000

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-156854-A-2-E MS	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	06/15/2018 0828	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.19	0.0927	0.324	141	75 - 125	F1

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-528000

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-156854-A-2-D DU	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528000	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	06/15/2018 0826	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0407				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.19	0.203	5	20	

Client: PW Grosser Consulting Job Number: 460-158175-1

Method Blank - Batch: 460-528002

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-528002/1-A	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/15/2018 0929	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-528002

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-528002/2-A	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/15/2018 0931	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	10.79	91.4	70.3 - 129.7	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-528002

Method: 7471B
Preparation: 7471B

MS Lab Sample ID:	460-157002-A-4-O MS	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	06/15/2018 0938			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				
Leach Date:	N/A				

MSD Lab Sample ID:	460-157002-B-4-AA MSD	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	06/15/2018 0945			Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	103	123	75 - 125	4	20		

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-528002

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-157002-A-4-N DU	Analysis Batch:	460-528174	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-528002	Lab File ID:	528000HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	06/15/2018 0936	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/15/2018 0438				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.37	0.378	2	20	

Client: PW Grosser Consulting Job Number: 460-158175-1

Method Blank - Batch: 460-530662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-530662/1-A	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/25/2018 1050	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-530662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-530662/2-A	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/25/2018 1051	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	11.81	100.1	70.3 - 129.7	

Matrix Spike - Batch: 460-530662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158321-D-1-N MS	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	06/25/2018 1057	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.010	J	0.0864	0.0966	100	75 - 125	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-530662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158321-D-1-M DU	Analysis Batch:	460-530775	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-530662	Lab File ID:	530631HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	06/25/2018 1055	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/25/2018 0549				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.010	J	0.0124	20	20	J

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-527748

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158127-A-31 DU	Analysis Batch:	460-527748	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/14/2018 0839	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	31.1	31.3	0.6	20	
Percent Solids	68.9	68.7	0.3	20	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-527761

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158175-22	Analysis Batch:	460-527761	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/14/2018 0926	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	5.9	5.7	4	20	
Percent Solids	94.1	94.3	0.2	20	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-527770

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158205-D-2 DU	Analysis Batch:	460-527770	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/14/2018 0945	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	10.9	11.1	2	20	
Percent Solids	89.1	88.9	0.3	20	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-527840

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158228-D-6 DU	Analysis Batch:	460-527840	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/14/2018 1340	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	20.6	18.3	12	20	
Percent Solids	79.4	81.7	3	20	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-530084

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158256-A-4 DU	Analysis Batch:	460-530084	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/22/2018 0922	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	18.7	16.5	12	20	
Percent Solids	81.3	83.5	3	20	

Client: PW Grosser Consulting

Job Number: 460-158175-1

Duplicate - Batch: 460-530178

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158796-A-6 DU	Analysis Batch:	460-530178	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/22/2018 1440	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	21.7	21.1	3	20	
Percent Solids	78.3	78.9	0.8	20	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

460-158175 Chain of Custody

NYSC 460501

LYSIS REQUEST

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) NR	Site/Project Identification Island Hills
Company PWGC	P. O. # RSL1801	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program:
Address 630 Johnson ave. St. 7	Analysis Turnaround Time: Standard ☒	LAB USE ONLY Project No:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No: 158175
Phone 631-589-6953 Fax		

ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of. Cont.	Mercury	Pesticides	Arsenic								Sample Numbers
SS-028 (36"-42") *HOLD*	6-12-18	950	S	1	X									1	
SS-049 (0"-3")	↓	100	↓	↓	X	X								2	
SS-050 (0"-3")	↓	1010	↓	↓	X	X								3	
SS-001 (30"-36")	↓	1020	↓	↓	X									4	
SS-001 (36"-42") *HOLD*	↓	1025	↓	↓	X									5	
SS-051 (0"-3")	↓	1030	↓	↓	X	X								6	
SS-052 (0"-3")	↓	1050	↓	↓	X									7	
SS-052 (18"-24")	↓	1055	↓	↓	X									8	
SS-052 (30"-36") *HOLD*	↓	1058	↓	↓	X									9	
SS-052 (36"-42") *HOLD*	↓	1100	↓	↓	X									10	

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:
Water:

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
Nan Kmm	PWGC	6-12-18 1730	1) [signature]	TA
2) [signature]	TA	6/12/18 1730	2) —	T. A
3) —	T. A	6/12/18 21:00	3) [signature]	TA edi 06/12/18 2100
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

2.5 / 2.5 2.8 / 2.8 ± RH // NO CO

TAL - 0016 (0814)

NYSC
460501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) NR	Site/Project Identification Black Hills
Company PWGC	P. O. # RSL1801	State (Location of site): NJ: ☐ NY: ☒ Other:
Address 630 Johnson Ave St. 7	Analysis Turnaround Time: Standard ☐	Regulatory Program:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone 631-589-6353 Fax		Job No: 168176

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Pesticides	Arsenic	Sample Numbers
SS-025 (30"-36")	6-12-18	815	S	1	X			11
SS-025 (36"-42") *HOLD*		820			X			12
SS-046 (0"-3")		835			X	X		13
SS-047 (0"-3")		850			X	X		14
SS-026 (30"-36")		900			X			15
SS-026 (36"-42") *HOLD*		905			X			16
SS-027 (30"-36")		925			X		X	17
SS-027 (36"-42") *HOLD*		930			X		X	18
SS-048 (0"-3")		935			X	X		19
SS-028 (30"-36")		945			X			20

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Water Metals Filtered (Yes/No)? _____

	Relinquished by	Company	Date / Time	Received by	Company
1)		PWGC	6-12-18 1730		TA
2)		TA	6/12/18 1900		
3)			6/12/18 21:00		06/12/18 21:00
4)					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NYSC
460501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) N R	Site/Project Identification Island H. 115
Company PWGC	P. O. # RSL1801	State (Location of site): NJ: ☐ NY: ☒ Other:
Address 630 Johnson ave St. 7	Analysis Turnaround Time: Standard ☒	Regulatory Program:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone 631-589-6353 Fax		Job No: 168176

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Pesticides	Arsenic	Sample Numbers
SS-053(0-3")	6-12-18	1115	S	1	X	X		21
SS-015(30-36")		1130			X			22
SS-015(36-42") *HOLD*		1135			X			23
SS-054(0-3")		1200			X			24
SS-054(18-24")		1202			X			25
SS-054(30-36") *HOLD*		1204			X			26
SS-054(36-42") *HOLD*		1206			X			27
SS-018(30-36")		1215			X			28
SS-018(36-42") *HOLD*		1220			X			29
SS-055(0-3")	↓	1230	↓	↓	X	X		30

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:
6 = Other _____, 7 = Other _____ Water:

Special Instructions Water Metals Filtered (Yes/No)? _____

	Relinquished by	Company	Date / Time	Received by	Company
1)	NM	PWGC	6-12-18 1730		TA
2)		TA	6/12/18 1920		TA
3)		TA	6/12/18 21:08		TA 06/12/18 2100
4)					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NYSC
460501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) NR	Site/Project Identification Island Hills
Company PWGC	P. O. # RSL1807	State (Location of site): NJ: ☐ NY: ☒ Other:
Address 630 Johnson Ave St. 7	Analysis Turnaround Time: Standard ☒	Regulatory Program:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone 631-589-6353 Fax		Job No: 15817G

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Pesticides	Arsenic	Sample Numbers
SS-056(0-3)	6-12-18	1250	S	1	X	X		31
SS-057(0-3)		1300			X			32
SS-057(18-24)		1305			X			33
SS-057(30-36) *HOLD*		1310			X			34
SS-057(36-42) *HOLD*		1315			X			35
SS-019(30-36)		1325			X			36
SS-019(36-42) *HOLD*		1330			X			37
SS-058(0-3)		1340			X	X		38
SS-021(30-36)		1400			X			39
SS-021(36-42) *HOLD*		1405			X			40

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: / Water:

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

	Relinquished by	Company	Date / Time	Received by	Company
1)	[signature]	PWGC	6-12-18 1753	[signature]	[signature]
2)	[signature]	[signature]	6/12/18 1753	[signature]	[signature]
3)	[signature]	[signature]	6/12/18 2100	[signature]	[signature] 06/12/18 2100
4)					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

NYSC
430501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Jennifer Lewis	Samplers Name (Printed): Nick Russell	Site/Project Identification: Island Hills
Company: PWGC	P. O. #: RSL1801	State (Location of site): NJ: ☐ NY: ☐ Other:
		Regulatory Program:
Address: 630 Johnson ave St. 7	Analysis Turnaround Time: Standard ☒	
City: Bohemia State: NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 631-589-6353 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Pesticides									LAB USE ONLY Sample Numbers
SS-034 (30"-36")	6-12-18	1430	S	1	X										41
SS-034 (36"-42") *HOLD*		1435			X										42
SS-059 (0"-3")		1455			X										43
SS-059 (18"-24")		1500			X										44
SS-059 (30"-36") *HOLD*		1505			X										45
SS-059 (36"-42") *HOLD*		1510			X										46
SS-010 (30"-36")		1530			X										47
SS-010 (36"-42") *HOLD*		1535			X										48
SS-060 (0"-3")		1600			X										49
SS-060 (18"-24")		1605			X										50

Job No: 168175

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

Soil: Water:

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by 1)	Company PWGC	Date / Time 6-12-18 1248	Received by 1)	Company TA
Relinquished by 2)	Company TA	Date / Time 6/12/18 1900	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 6/12/18 2100	Received by 3)	Company TA 06/12/18 2100
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

NYAC
460501

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) Nick Russell	Site/Project Identification Island Hills
Company PWGC	P. O. # RSL1801	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program:
Address 630 Johnson Ave. St. 7	Analysis Turnaround Time: Standard ☒	LAB USE ONLY Project No:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No: 16E175
Phone 631-589-6353 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury										Sample Numbers
SS-060(36-36) *HOLD*	6-12-18	1610	S	1	X										61
SS-060(36-42) *HOLD*	↓	1615	↓	↓	X										62
					NR										

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	PWGC	6-12-18 1730	1)	
2)		6/12/18 1730	2)	
3)		6/12/18 2104	3)	06/13/18 0100
4)			4)	

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 168176

Number of Coolers: 2 IR Gun # 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.1 °C	2.1 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	1.8 °C	1.8 °C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

**Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 6/12/18

Login Sample Receipt Checklist

Client: PW Grosser Consulting

Job Number: 460-158175-1

Login Number: 158175
List Number: 1
Creator: Meyers, Gary

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-158498-1

Job Description: RSL1801

For:
PW Grosser Consulting
630 Johnson Ave
Suite 7
Bohemia, NY 11716

Attention: Ms. Jennifer Lewis

Approved for release.
Thomas A Chupela
Project Management Assistant I
6/21/2018 4:01 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
06/21/2018

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

Job Number: 460-158498-1

Job Description: RSL1801

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Approved for release.
Thomas A Chupela
Project Management Assistant I
6/21/2018 4:01 PM

Designee for
Melissa Haas

CASE NARRATIVE

Client: PW Grosser Consulting

Project: RSL1801

Report Number: 460-158498-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 6/15/2018 9:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received. The client confirmed the sample ID's for samples 11-20 should have included depths:

The ID's should read as follows:
11) SS-019E (0-3")
12) SS-019E (18"-24")
13) SS-019S (0-3")
14) SS-019S (18"-24")
15) SS-019W (0-3")
16) SS-019W (18"-24")
17) SS-026N (0-3")
18) SS-026N (18"-24")
19) SS-026E (0-3")
20) SS-026E (18"-24")

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PESTICIDES

Samples SS-061(0-3") (460-158498-25), SS-061(18"-24") (460-158498-26), SS-062(0-3") (460-158498-27), SS-062(18"-24") (460-158498-28), SS-063(0-3") (460-158498-29), SS-063(18"-24") (460-158498-30), SS-064(0-3") (460-158498-31), SS-064(18"-24") (460-158498-32), SS-065(0-3") (460-158498-33) and SS-065(18"-24") (460-158498-34) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 06/19/2018 and analyzed on 06/20/2018 and 06/21/2018.

DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: SS-064(18"-24") (460-158498-32). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Tetrachloro-m-xylene failed the surrogate recovery criteria high for 460-158209-A-38-A MS.

Several analytes failed the recovery criteria low for the Matrix Spike (MS) of sample 460-158209-38 in batch 460-529718. Aldrin failed the recovery criteria high.

For the Matrix Spike Duplicate (MSD_ of sample 460-158209-38 in batch 460-529718, Several analytes failed the recovery criteria low. 4,4'-DDE failed the recovery criteria high. Also, 4,4'-DDD, beta-BHC, delta-BHC and gamma-BHC (Lindane) exceeded the RPD limit.

Refer to the QC report for details.

Samples SS-061(0-3") (460-158498-25)[5X], SS-062(0-3") (460-158498-27)[5X], SS-063(0-3") (460-158498-29)[5X] and SS-064(0-3") (460-158498-31)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples SS-015N(0-3") (460-158498-1), SS-015N(18"-24") (460-158498-2), SS-015E(0-3") (460-158498-3), SS-015E(18"-24") (460-158498-4), SS-015S(0-3") (460-158498-5), SS-015S(18"-24") (460-158498-6), SS-015W(0-3") (460-158498-7), SS-015W(18"-24") (460-158498-8), SS-019N(0-3") (460-158498-9), SS-019N(18"-24") (460-158498-10), SS-019E (460-158498-11), SS-019E (460-158498-12), SS-019S (460-158498-13), SS-019S (460-158498-14), SS-019W (460-158498-15), SS-019W (460-158498-16), SS-026N (460-158498-17), SS-026N (460-158498-18), SS-026E (460-158498-19), SS-026E (460-158498-20), SS-026S(0-3") (460-158498-21), SS-026S(18"-24") (460-158498-22), SS-026W(0-3") (460-158498-23), SS-026W(18"-24") (460-158498-24), SS-061(0-3") (460-158498-25), SS-061(18"-24") (460-158498-26), SS-062(0-3") (460-158498-27), SS-062(18"-24") (460-158498-28), SS-063(0-3") (460-158498-29), SS-063(18"-24") (460-158498-30), SS-064(0-3") (460-158498-31), SS-064(18"-24") (460-158498-32), SS-065(0-3") (460-158498-33) and SS-065(18"-24") (460-158498-34) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 06/21/2018.

Mercury failed the recovery criteria low for the MS of sample 460-158425-8 in batch 460-529826.

Mercury failed the recovery criteria low for the MS of sample SS-015W(18"-24")MS (460-158498-8) in batch 460-529826.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SS-015N(0-3") (460-158498-1)[40X], SS-015N(18"-24") (460-158498-2)[3X], SS-015E(0-3") (460-158498-3)[40X], SS-015E(18"-24") (460-158498-4)[10X], SS-015S(0-3") (460-158498-5)[20X], SS-015S(18"-24") (460-158498-6)[10X], SS-015W(0-3") (460-158498-7)[100X], SS-015W(18"-24") (460-158498-8)[10X], SS-019N(0-3") (460-158498-9)[10X], SS-019N(18"-24") (460-158498-10)[40X], SS-019E (460-158498-11)[20X], SS-019E (460-158498-12)[2X], SS-019S (460-158498-13)[10X], SS-019W (460-158498-15)[10X], SS-019W (460-158498-16)[10X], SS-026N (460-158498-17)[10X], SS-026N (460-158498-18)[10X], SS-026S(18"-24") (460-158498-22)[10X], SS-026W(0-3") (460-158498-23)[20X], SS-026W(18"-24") (460-158498-24)[10X], SS-061(0-3") (460-158498-25)[10X], SS-061(18"-24") (460-158498-26)[10X], SS-062(0-3") (460-158498-27)[10X], SS-062(18"-24") (460-158498-28)[10X], SS-063(0-3") (460-158498-29)[10X], SS-063(18"-24") (460-158498-30)[30X], SS-064(18"-24") (460-158498-32)[10X] and SS-065(0-3") (460-158498-33)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SS-015N(0-3") (460-158498-1), SS-015N(18"-24") (460-158498-2), SS-015E(0-3") (460-158498-3), SS-015E(18"-24") (460-158498-4), SS-015S(0-3") (460-158498-5), SS-015S(18"-24") (460-158498-6), SS-015W(0-3") (460-158498-7), SS-015W(18"-24") (460-158498-8), SS-019N(0-3") (460-158498-9), SS-019N(18"-24") (460-158498-10), SS-019E (460-158498-11), SS-019E (460-158498-12), SS-019S (460-158498-13), SS-019S (460-158498-14), SS-019W (460-158498-15), SS-019W (460-158498-16), SS-026N (460-158498-17), SS-026N (460-158498-18), SS-026E (460-158498-19), SS-026E (460-158498-20), SS-026S(0-3") (460-158498-21), SS-026S(18"-24") (460-158498-22), SS-026W(0-3") (460-158498-23), SS-026W(18"-24") (460-158498-24), SS-061(0-3") (460-158498-25), SS-061(18"-24") (460-158498-26), SS-062(0-3") (460-158498-27), SS-062(18"-24") (460-158498-28), SS-063(0-3") (460-158498-29), SS-063(18"-24") (460-158498-30), SS-064(0-3") (460-158498-31), SS-064(18"-24") (460-158498-32), SS-065(0-3") (460-158498-33) and SS-065(18"-24") (460-158498-34) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 06/19/2018 and 06/20/2018.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: PW Grosser Consulting Job Number: 460-158498-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-158498-1	**SS-015N(0-3")**					
Mercury		18.8		0.72	mg/Kg	7471B
Percent Moisture		11.2		1.0	%	Moisture
Percent Solids		88.8		1.0	%	Moisture
460-158498-2	**SS-015N(18"-24")**					
Mercury		1.5		0.054	mg/Kg	7471B
Percent Moisture		7.7		1.0	%	Moisture
Percent Solids		92.3		1.0	%	Moisture
460-158498-3	**SS-015E(0-3")**					
Mercury		27.4		0.75	mg/Kg	7471B
Percent Moisture		14.1		1.0	%	Moisture
Percent Solids		85.9		1.0	%	Moisture
460-158498-4	**SS-015E(18"-24")**					
Mercury		8.8		0.18	mg/Kg	7471B
Percent Moisture		9.1		1.0	%	Moisture
Percent Solids		90.9		1.0	%	Moisture
460-158498-5	**SS-015S(0-3")**					
Mercury		10.3		0.40	mg/Kg	7471B
Percent Moisture		14.5		1.0	%	Moisture
Percent Solids		85.5		1.0	%	Moisture
460-158498-6	**SS-015S(18"-24")**					
Mercury		4.0		0.18	mg/Kg	7471B
Percent Moisture		8.6		1.0	%	Moisture
Percent Solids		91.4		1.0	%	Moisture
460-158498-7	**SS-015W(0-3")**					
Mercury		41.3		2.0	mg/Kg	7471B
Percent Moisture		16.4		1.0	%	Moisture
Percent Solids		83.6		1.0	%	Moisture
460-158498-8	**SS-015W(18"-24")**					
Mercury		3.9		0.17	mg/Kg	7471B
Percent Moisture		9.3		1.0	%	Moisture
Percent Solids		90.7		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: PW Grosser Consulting Job Number: 460-158498-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-158498-9	**SS-019N(0-3")**					
Mercury		0.88		0.16	mg/Kg	7471B
Percent Moisture		5.5		1.0	%	Moisture
Percent Solids		94.5		1.0	%	Moisture
460-158498-10	**SS-019N(18"-24")**					
Mercury		23.5		0.72	mg/Kg	7471B
Percent Moisture		11.8		1.0	%	Moisture
Percent Solids		88.2		1.0	%	Moisture
460-158498-11	**SS-019E (0-3")**					
Mercury		11.6		0.35	mg/Kg	7471B
Percent Moisture		10.7		1.0	%	Moisture
Percent Solids		89.3		1.0	%	Moisture
460-158498-12	**SS-019E (18"-24")**					
Mercury		1.2		0.037	mg/Kg	7471B
Percent Moisture		11.4		1.0	%	Moisture
Percent Solids		88.6		1.0	%	Moisture
460-158498-13	**SS-019S (0-3")**					
Mercury		3.4		0.18	mg/Kg	7471B
Percent Moisture		8.9		1.0	%	Moisture
Percent Solids		91.1		1.0	%	Moisture
460-158498-14	**SS-019S (18"-24")**					
Mercury		0.53		0.018	mg/Kg	7471B
Percent Moisture		12.3		1.0	%	Moisture
Percent Solids		87.7		1.0	%	Moisture
460-158498-15	**SS-019W (0-3")**					
Mercury		8.2		0.18	mg/Kg	7471B
Percent Moisture		9.6		1.0	%	Moisture
Percent Solids		90.4		1.0	%	Moisture
460-158498-16	**SS-019W (18"-24")**					
Mercury		2.0		0.18	mg/Kg	7471B
Percent Moisture		12.8		1.0	%	Moisture
Percent Solids		87.2		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: PW Grosser Consulting Job Number: 460-158498-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-158498-17	**SS-026N (0-3")**					
Mercury		4.3		0.18	mg/Kg	7471B
Percent Moisture		10.8		1.0	%	Moisture
Percent Solids		89.2		1.0	%	Moisture
460-158498-18	**SS-026N (18"-24")**					
Mercury		3.5		0.17	mg/Kg	7471B
Percent Moisture		8.4		1.0	%	Moisture
Percent Solids		91.6		1.0	%	Moisture
460-158498-19	**SS-026E (0-3")**					
Mercury		0.22		0.017	mg/Kg	7471B
Percent Moisture		5.4		1.0	%	Moisture
Percent Solids		94.6		1.0	%	Moisture
460-158498-20	**SS-026E (18"-24")**					
Mercury		0.026		0.017	mg/Kg	7471B
Percent Moisture		5.8		1.0	%	Moisture
Percent Solids		94.2		1.0	%	Moisture
460-158498-21	**SS-026S(0-3")**					
Mercury		0.66		0.019	mg/Kg	7471B
Percent Moisture		9.7		1.0	%	Moisture
Percent Solids		90.3		1.0	%	Moisture
460-158498-22	**SS-026S(18"-24")**					
Mercury		6.1		0.17	mg/Kg	7471B
Percent Moisture		7.4		1.0	%	Moisture
Percent Solids		92.6		1.0	%	Moisture
460-158498-23	**SS-026W(0-3")**					
Mercury		14.5		0.37	mg/Kg	7471B
Percent Moisture		10.3		1.0	%	Moisture
Percent Solids		89.7		1.0	%	Moisture
460-158498-24	**SS-026W(18"-24")**					
Mercury		6.9		0.19	mg/Kg	7471B
Percent Moisture		14.1		1.0	%	Moisture
Percent Solids		85.9		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: PW Grosser Consulting Job Number: 460-158498-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-158498-25	**SS-061(0-3")**					
beta-BHC		0.058		0.011	mg/Kg	8081B
Chlordane (technical)		3.6		0.37	mg/Kg	8081B
Heptachlor epoxide		0.052		0.037	mg/Kg	8081B
Mercury		5.0		0.18	mg/Kg	7471B
Percent Moisture		10.5		1.0	%	Moisture
Percent Solids		89.5		1.0	%	Moisture
460-158498-26	**SS-061(18"-24")**					
Chlordane (technical)		0.60		0.073	mg/Kg	8081B
gamma-BHC (Lindane)		0.0033		0.0022	mg/Kg	8081B
Heptachlor epoxide		0.0060	J	0.0073	mg/Kg	8081B
Mercury		2.7		0.17	mg/Kg	7471B
Percent Moisture		8.6		1.0	%	Moisture
Percent Solids		91.4		1.0	%	Moisture
460-158498-27	**SS-062(0-3")**					
beta-BHC		0.017		0.013	mg/Kg	8081B
Chlordane (technical)		3.7		0.43	mg/Kg	8081B
Heptachlor epoxide		0.051		0.043	mg/Kg	8081B
Mercury		2.9		0.20	mg/Kg	7471B
Percent Moisture		21.8		1.0	%	Moisture
Percent Solids		78.2		1.0	%	Moisture
460-158498-28	**SS-062(18"-24")**					
Chlordane (technical)		0.64		0.076	mg/Kg	8081B
gamma-BHC (Lindane)		0.0028		0.0023	mg/Kg	8081B
Heptachlor epoxide		0.0077		0.0076	mg/Kg	8081B
Mercury		4.2		0.18	mg/Kg	7471B
Percent Moisture		12.0		1.0	%	Moisture
Percent Solids		88.0		1.0	%	Moisture
460-158498-29	**SS-063(0-3")**					
beta-BHC		0.054		0.011	mg/Kg	8081B
Chlordane (technical)		2.0		0.38	mg/Kg	8081B
Heptachlor epoxide		0.031	J	0.038	mg/Kg	8081B
Mercury		1.8		0.18	mg/Kg	7471B
Percent Moisture		12.1		1.0	%	Moisture
Percent Solids		87.9		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: PW Grosser Consulting Job Number: 460-158498-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-158498-30	**SS-063(18"-24")**					
Chlordane (technical)		0.73		0.074	mg/Kg	8081B
gamma-BHC (Lindane)		0.0035		0.0022	mg/Kg	8081B
Heptachlor epoxide		0.022		0.0074	mg/Kg	8081B
Mercury		17.9		0.56	mg/Kg	7471B
Percent Moisture		9.3		1.0	%	Moisture
Percent Solids		90.7		1.0	%	Moisture
460-158498-31	**SS-064(0-3")**					
beta-BHC		0.30		0.011	mg/Kg	8081B
Chlordane (technical)		1.9		0.37	mg/Kg	8081B
Heptachlor epoxide		0.030	J	0.037	mg/Kg	8081B
Mercury		0.40		0.018	mg/Kg	7471B
Percent Moisture		9.0		1.0	%	Moisture
Percent Solids		91.0		1.0	%	Moisture
460-158498-32	**SS-064(18"-24")**					
4,4'-DDT		0.011		0.0079	mg/Kg	8081B
Dieldrin		0.0092		0.0024	mg/Kg	8081B
Mercury		1.9		0.19	mg/Kg	7471B
Percent Moisture		15.8		1.0	%	Moisture
Percent Solids		84.2		1.0	%	Moisture
460-158498-33	**SS-065(0-3")**					
Chlordane (technical)		0.39		0.072	mg/Kg	8081B
gamma-BHC (Lindane)		0.0034		0.0021	mg/Kg	8081B
Heptachlor epoxide		0.0063	J	0.0072	mg/Kg	8081B
Mercury		1.5		0.17	mg/Kg	7471B
Percent Moisture		6.9		1.0	%	Moisture
Percent Solids		93.1		1.0	%	Moisture
460-158498-34	**SS-065(18"-24")**					
4,4'-DDT		0.0035	J	0.0079	mg/Kg	8081B
beta-BHC		0.0024		0.0024	mg/Kg	8081B
Chlordane (technical)		0.74		0.079	mg/Kg	8081B
Dieldrin		0.0048		0.0024	mg/Kg	8081B
gamma-BHC (Lindane)		0.0031		0.0024	mg/Kg	8081B
Heptachlor epoxide		0.18		0.0079	mg/Kg	8081B
Mercury		0.16		0.020	mg/Kg	7471B
Percent Moisture		15.6		1.0	%	Moisture
Percent Solids		84.4		1.0	%	Moisture

METHOD SUMMARY

Client: PW Grosser Consulting Job Number: 460-158498-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Organochlorine Pesticides (GC)	TAL EDI	SW846 8081B	
Microwave Extraction	TAL EDI		SW846 3546
Mercury (CVAA)	TAL EDI	SW846 7471B	
Preparation, Mercury	TAL EDI		SW846 7471B
Percent Moisture	TAL EDI	EPA Moisture	

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: PW Grosser Consulting

Job Number: 460-158498-1

Method	Analyst	Analyst ID
SW846 8081B	Kapoor, Sita	SAK
SW846 7471B	Staib, Thomas	TJS
EPA Moisture	Potts, Brandon J	BJP

SAMPLE SUMMARY

Client: PW Grosser Consulting

Job Number: 460-158498-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-158498-1	SS-015N(0-3")	Solid	06/15/2018 1005	06/15/2018 2120
460-158498-2	SS-015N(18"-24")	Solid	06/15/2018 1010	06/15/2018 2120
460-158498-3	SS-015E(0-3")	Solid	06/15/2018 1030	06/15/2018 2120
460-158498-4	SS-015E(18"-24")	Solid	06/15/2018 1035	06/15/2018 2120
460-158498-5	SS-015S(0-3")	Solid	06/15/2018 1055	06/15/2018 2120
460-158498-6	SS-015S(18"-24")	Solid	06/15/2018 1100	06/15/2018 2120
460-158498-7	SS-015W(0-3")	Solid	06/15/2018 1120	06/15/2018 2120
460-158498-8	SS-015W(18"-24")	Solid	06/15/2018 1125	06/15/2018 2120
460-158498-9	SS-019N(0-3")	Solid	06/15/2018 1200	06/15/2018 2120
460-158498-10	SS-019N(18"-24")	Solid	06/15/2018 1205	06/15/2018 2120
460-158498-11	SS-019E (0-3")	Solid	06/15/2018 1242	06/15/2018 2120
460-158498-12	SS-019E (18"-24")	Solid	06/15/2018 1245	06/15/2018 2120
460-158498-13	SS-019S (0-3")	Solid	06/15/2018 1305	06/15/2018 2120
460-158498-14	SS-019S (18"-24")	Solid	06/15/2018 1310	06/15/2018 2120
460-158498-15	SS-019W (0-3")	Solid	06/15/2018 1330	06/15/2018 2120
460-158498-16	SS-019W (18"-24")	Solid	06/15/2018 1335	06/15/2018 2120
460-158498-17	SS-026N (0-3")	Solid	06/15/2018 0750	06/15/2018 2120
460-158498-18	SS-026N (18"-24")	Solid	06/15/2018 0755	06/15/2018 2120
460-158498-19	SS-026E (0-3")	Solid	06/15/2018 0820	06/15/2018 2120
460-158498-20	SS-026E (18"-24")	Solid	06/15/2018 0825	06/15/2018 2120
460-158498-21	SS-026S(0-3")	Solid	06/15/2018 0845	06/15/2018 2120
460-158498-22	SS-026S(18"-24")	Solid	06/15/2018 0850	06/15/2018 2120
460-158498-23	SS-026W(0-3")	Solid	06/15/2018 0915	06/15/2018 2120
460-158498-24	SS-026W(18"-24")	Solid	06/15/2018 0920	06/15/2018 2120
460-158498-25	SS-061(0-3")	Solid	06/15/2018 1245	06/15/2018 2120
460-158498-26	SS-061(18"-24")	Solid	06/15/2018 1250	06/15/2018 2120
460-158498-27	SS-062(0-3")	Solid	06/15/2018 1300	06/15/2018 2120
460-158498-28	SS-062(18"-24")	Solid	06/15/2018 1305	06/15/2018 2120
460-158498-29	SS-063(0-3")	Solid	06/15/2018 1315	06/15/2018 2120
460-158498-30	SS-063(18"-24")	Solid	06/15/2018 1320	06/15/2018 2120
460-158498-31	SS-064(0-3")	Solid	06/15/2018 1335	06/15/2018 2120
460-158498-32	SS-064(18"-24")	Solid	06/15/2018 1340	06/15/2018 2120
460-158498-33	SS-065(0-3")	Solid	06/15/2018 1400	06/15/2018 2120
460-158498-34	SS-065(18"-24")	Solid	06/15/2018 1405	06/15/2018 2120

SAMPLE RESULTS

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: SS-061(0-3")

Lab Sample ID: 460-158498-25 | Date Sampled: 06/15/2018 1245
Client Matrix: Solid | % Moisture: 10.5 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0285 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1132	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.037	U	0.0064	0.037
4,4'-DDE		0.037	U	0.0044	0.037
4,4'-DDT		0.037	U	0.0069	0.037
Aldrin		0.037	U	0.0056	0.037
alpha-BHC		0.011	U	0.0038	0.011
beta-BHC		0.058		0.0042	0.011
Chlordane (technical)		3.6		0.090	0.37
delta-BHC		0.011	U	0.0023	0.011
Dieldrin		0.011	U	0.0049	0.011
Endosulfan I		0.037	U	0.0057	0.037
Endosulfan II		0.037	U	0.0096	0.037
Endosulfan sulfate		0.037	U	0.0047	0.037
Endrin		0.037	U	0.0054	0.037
Endrin aldehyde		0.037	U	0.0088	0.037
Endrin ketone		0.037	U	0.0073	0.037
gamma-BHC (Lindane)		0.011	U	0.0035	0.011
Heptachlor		0.037	U	0.0044	0.037
Heptachlor epoxide		0.052		0.0056	0.037
Methoxychlor		0.037	U	0.0085	0.037
Toxaphene		0.37	U	0.13	0.37

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	150		69 - 150
Tetrachloro-m-xylene	149		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-061(0-3")

Lab Sample ID: 460-158498-25 Date Sampled: 06/15/2018 1245
Client Matrix: Solid % Moisture: 10.5 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0285 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1132	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	149		69 - 150
Tetrachloro-m-xylene	148		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-061(18"-24")**

Lab Sample ID: 460-158498-26 | Date Sampled: 06/15/2018 1250
Client Matrix: Solid | % Moisture: 8.6 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0244 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 1941			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.0073	U	0.0012	0.0073
4,4'-DDE		0.0073	U	0.00086	0.0073
4,4'-DDT		0.0073	U	0.0013	0.0073
Aldrin		0.0073	U	0.0011	0.0073
alpha-BHC		0.0022	U	0.00074	0.0022
beta-BHC		0.0022	U	0.00082	0.0022
Chlordane (technical)		0.60		0.018	0.073
delta-BHC		0.0022	U	0.00045	0.0022
Dieldrin		0.0022	U	0.00095	0.0022
Endosulfan I		0.0073	U	0.0011	0.0073
Endosulfan II		0.0073	U	0.0019	0.0073
Endosulfan sulfate		0.0073	U	0.00092	0.0073
Endrin		0.0073	U	0.0010	0.0073
Endrin aldehyde		0.0073	U	0.0017	0.0073
Endrin ketone		0.0073	U	0.0014	0.0073
gamma-BHC (Lindane)		0.0033		0.00068	0.0022
Heptachlor		0.0073	U	0.00086	0.0073
Heptachlor epoxide		0.0060	J	0.0011	0.0073
Methoxychlor		0.0073	U	0.0017	0.0073
Toxaphene		0.073	U	0.026	0.073

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	148		69 - 150
Tetrachloro-m-xylene	148		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-061(18"-24")

Lab Sample ID: 460-158498-26 Date Sampled: 06/15/2018 1250
Client Matrix: Solid % Moisture: 8.6 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0244 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 1941			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	142		69 - 150
Tetrachloro-m-xylene	144		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: SS-062(0-3")

Lab Sample ID: 460-158498-27 | Date Sampled: 06/15/2018 1300
Client Matrix: Solid | % Moisture: 21.8 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0444 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1145	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.043	U	0.0073	0.043
4,4'-DDE		0.043	U	0.0050	0.043
4,4'-DDT		0.043	U	0.0078	0.043
Aldrin		0.043	U	0.0064	0.043
alpha-BHC		0.013	U	0.0043	0.013
beta-BHC		0.017		0.0048	0.013
Chlordane (technical)		3.7		0.10	0.43
delta-BHC		0.013	U	0.0026	0.013
Dieldrin		0.013	U	0.0055	0.013
Endosulfan I		0.043	U	0.0065	0.043
Endosulfan II		0.043	U	0.011	0.043
Endosulfan sulfate		0.043	U	0.0054	0.043
Endrin		0.043	U	0.0061	0.043
Endrin aldehyde		0.043	U	0.010	0.043
Endrin ketone		0.043	U	0.0083	0.043
gamma-BHC (Lindane)		0.013	U	0.0040	0.013
Heptachlor		0.043	U	0.0050	0.043
Heptachlor epoxide		0.051		0.0064	0.043
Methoxychlor		0.043	U	0.0098	0.043
Toxaphene		0.43	U	0.15	0.43

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	142		69 - 150
Tetrachloro-m-xylene	125		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-062(0-3")

Lab Sample ID: 460-158498-27 Date Sampled: 06/15/2018 1300
Client Matrix: Solid % Moisture: 21.8 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0444 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1145	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	141		69 - 150
Tetrachloro-m-xylene	122		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-062(18"-24")

Lab Sample ID: 460-158498-28 Date Sampled: 06/15/2018 1305
Client Matrix: Solid % Moisture: 12.0 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0233 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2007			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.0076	U	0.0013	0.0076
4,4'-DDE		0.0076	U	0.00090	0.0076
4,4'-DDT		0.0076	U	0.0014	0.0076
Aldrin		0.0076	U	0.0011	0.0076
alpha-BHC		0.0023	U	0.00077	0.0023
beta-BHC		0.0023	U	0.00085	0.0023
Chlordane (technical)		0.64		0.018	0.076
delta-BHC		0.0023	U	0.00047	0.0023
Dieldrin		0.0023	U	0.00099	0.0023
Endosulfan I		0.0076	U	0.0012	0.0076
Endosulfan II		0.0076	U	0.0020	0.0076
Endosulfan sulfate		0.0076	U	0.00095	0.0076
Endrin		0.0076	U	0.0011	0.0076
Endrin aldehyde		0.0076	U	0.0018	0.0076
Endrin ketone		0.0076	U	0.0015	0.0076
gamma-BHC (Lindane)		0.0028		0.00070	0.0023
Heptachlor		0.0076	U	0.00090	0.0076
Heptachlor epoxide		0.0077		0.0011	0.0076
Methoxychlor		0.0076	U	0.0017	0.0076
Toxaphene		0.076	U	0.027	0.076

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	127		69 - 150
Tetrachloro-m-xylene	136		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-062(18"-24")

Lab Sample ID: 460-158498-28 Date Sampled: 06/15/2018 1305
Client Matrix: Solid % Moisture: 12.0 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0233 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2007			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	127		69 - 150
Tetrachloro-m-xylene	136		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: SS-063(0-3")

Lab Sample ID: 460-158498-29 | Date Sampled: 06/15/2018 1315
Client Matrix: Solid | % Moisture: 12.1 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0496 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1157	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.038	U	0.0065	0.038
4,4'-DDE		0.038	U	0.0045	0.038
4,4'-DDT		0.038	U	0.0070	0.038
Aldrin		0.038	U	0.0057	0.038
alpha-BHC		0.011	U	0.0039	0.011
beta-BHC		0.054		0.0042	0.011
Chlordane (technical)		2.0		0.092	0.38
delta-BHC		0.011	U	0.0023	0.011
Dieldrin		0.011	U	0.0049	0.011
Endosulfan I		0.038	U	0.0058	0.038
Endosulfan II		0.038	U	0.0097	0.038
Endosulfan sulfate		0.038	U	0.0048	0.038
Endrin		0.038	U	0.0054	0.038
Endrin aldehyde		0.038	U	0.0090	0.038
Endrin ketone		0.038	U	0.0074	0.038
gamma-BHC (Lindane)		0.011	U	0.0035	0.011
Heptachlor		0.038	U	0.0045	0.038
Heptachlor epoxide		0.031	J	0.0057	0.038
Methoxychlor		0.038	U	0.0087	0.038
Toxaphene		0.38	U	0.14	0.38

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	112		69 - 150
Tetrachloro-m-xylene	122		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-063(0-3")

Lab Sample ID: 460-158498-29 Date Sampled: 06/15/2018 1315
Client Matrix: Solid % Moisture: 12.1 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0496 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1157	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	111		69 - 150
Tetrachloro-m-xylene	111		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-063(18"-24")

Lab Sample ID: 460-158498-30 Date Sampled: 06/15/2018 1320
Client Matrix: Solid % Moisture: 9.3 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0222 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2033			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.0074	U	0.0013	0.0074
4,4'-DDE		0.0074	U	0.00087	0.0074
4,4'-DDT		0.0074	U	0.0014	0.0074
Aldrin		0.0074	U	0.0011	0.0074
alpha-BHC		0.0022	U	0.00075	0.0022
beta-BHC		0.0022	U	0.00083	0.0022
Chlordane (technical)		0.73		0.018	0.074
delta-BHC		0.0022	U	0.00045	0.0022
Dieldrin		0.0022	U	0.00096	0.0022
Endosulfan I		0.0074	U	0.0011	0.0074
Endosulfan II		0.0074	U	0.0019	0.0074
Endosulfan sulfate		0.0074	U	0.00092	0.0074
Endrin		0.0074	U	0.0011	0.0074
Endrin aldehyde		0.0074	U	0.0017	0.0074
Endrin ketone		0.0074	U	0.0014	0.0074
gamma-BHC (Lindane)		0.0035		0.00068	0.0022
Heptachlor		0.0074	U	0.00087	0.0074
Heptachlor epoxide		0.022		0.0011	0.0074
Methoxychlor		0.0074	U	0.0017	0.0074
Toxaphene		0.074	U	0.027	0.074

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	137		69 - 150
Tetrachloro-m-xylene	147		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-063(18"-24")

Lab Sample ID: 460-158498-30 Date Sampled: 06/15/2018 1320
Client Matrix: Solid % Moisture: 9.3 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0222 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2033			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	136		69 - 150
Tetrachloro-m-xylene	146		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: SS-064(0-3")

Lab Sample ID: 460-158498-31 | Date Sampled: 06/15/2018 1335
Client Matrix: Solid | % Moisture: 9.0 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0111 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1210	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.037	U	0.0063	0.037
4,4'-DDE		0.037	U	0.0043	0.037
4,4'-DDT		0.037	U	0.0068	0.037
Aldrin		0.037	U	0.0055	0.037
alpha-BHC		0.011	U	0.0037	0.011
beta-BHC		0.30		0.0041	0.011
Chlordane (technical)		1.9		0.089	0.37
delta-BHC		0.011	U	0.0023	0.011
Dieldrin		0.011	U	0.0048	0.011
Endosulfan I		0.037	U	0.0056	0.037
Endosulfan II		0.037	U	0.0094	0.037
Endosulfan sulfate		0.037	U	0.0046	0.037
Endrin		0.037	U	0.0053	0.037
Endrin aldehyde		0.037	U	0.0087	0.037
Endrin ketone		0.037	U	0.0071	0.037
gamma-BHC (Lindane)		0.011	U	0.0034	0.011
Heptachlor		0.037	U	0.0043	0.037
Heptachlor epoxide		0.030	J	0.0055	0.037
Methoxychlor		0.037	U	0.0084	0.037
Toxaphene		0.37	U	0.13	0.37

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	135		69 - 150
Tetrachloro-m-xylene	138		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-064(0-3")

Lab Sample ID: 460-158498-31 Date Sampled: 06/15/2018 1335
Client Matrix: Solid % Moisture: 9.0 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0111 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	06/21/2018 1210	Run Type:	DL	Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	131		69 - 150
Tetrachloro-m-xylene	120		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-064(18"-24")

Lab Sample ID: 460-158498-32 Date Sampled: 06/15/2018 1340
Client Matrix: Solid % Moisture: 15.8 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0485 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2058			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.0079	U	0.0014	0.0079
4,4'-DDE		0.0079	U	0.00094	0.0079
4,4'-DDT		0.011		0.0015	0.0079
Aldrin		0.0079	U	0.0012	0.0079
alpha-BHC		0.0024	U	0.00081	0.0024
beta-BHC		0.0024	U	0.00089	0.0024
Chlordane (technical)		0.079	U	0.019	0.079
delta-BHC		0.0024	U	0.00049	0.0024
Dieldrin		0.0092		0.0010	0.0024
Endosulfan I		0.0079	U	0.0012	0.0079
Endosulfan II		0.0079	U	0.0020	0.0079
Endosulfan sulfate		0.0079	U	0.00099	0.0079
Endrin		0.0079	U	0.0011	0.0079
Endrin aldehyde		0.0079	U	0.0019	0.0079
Endrin ketone		0.0079	U	0.0015	0.0079
gamma-BHC (Lindane)		0.0024	U	0.00073	0.0024
Heptachlor		0.0079	U	0.00094	0.0079
Heptachlor epoxide		0.0079	U	0.0012	0.0079
Methoxychlor		0.0079	U	0.0018	0.0079
Toxaphene		0.079	U	0.029	0.079

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	155	X	69 - 150
Tetrachloro-m-xylene	147		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-064(18"-24")**

Lab Sample ID: 460-158498-32 | Date Sampled: 06/15/2018 1340
Client Matrix: Solid | % Moisture: 15.8 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0485 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2058			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	149		69 - 150
Tetrachloro-m-xylene	145		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: SS-065(0-3")

Lab Sample ID: 460-158498-33 | Date Sampled: 06/15/2018 1400
Client Matrix: Solid | % Moisture: 6.9 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0233 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2111			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.0072	U	0.0012	0.0072
4,4'-DDE		0.0072	U	0.00085	0.0072
4,4'-DDT		0.0072	U	0.0013	0.0072
Aldrin		0.0072	U	0.0011	0.0072
alpha-BHC		0.0021	U	0.00073	0.0021
beta-BHC		0.0021	U	0.00080	0.0021
Chlordane (technical)		0.39		0.017	0.072
delta-BHC		0.0021	U	0.00044	0.0021
Dieldrin		0.0021	U	0.00093	0.0021
Endosulfan I		0.0072	U	0.0011	0.0072
Endosulfan II		0.0072	U	0.0018	0.0072
Endosulfan sulfate		0.0072	U	0.00090	0.0072
Endrin		0.0072	U	0.0010	0.0072
Endrin aldehyde		0.0072	U	0.0017	0.0072
Endrin ketone		0.0072	U	0.0014	0.0072
gamma-BHC (Lindane)		0.0034		0.00066	0.0021
Heptachlor		0.0072	U	0.00085	0.0072
Heptachlor epoxide		0.0063	J	0.0011	0.0072
Methoxychlor		0.0072	U	0.0016	0.0072
Toxaphene		0.072	U	0.026	0.072

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	150		69 - 150
Tetrachloro-m-xylene	150		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-065(0-3")

Lab Sample ID: 460-158498-33 Date Sampled: 06/15/2018 1400
Client Matrix: Solid % Moisture: 6.9 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0233 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2111			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	149		69 - 150
Tetrachloro-m-xylene	148		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-065(18"-24")**

Lab Sample ID: 460-158498-34 | Date Sampled: 06/15/2018 1405
Client Matrix: Solid | % Moisture: 15.6 | Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0216 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2124			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.0079	U	0.0013	0.0079
4,4'-DDE		0.0079	U	0.00094	0.0079
4,4'-DDT		0.0035	J	0.0015	0.0079
Aldrin		0.0079	U	0.0012	0.0079
alpha-BHC		0.0024	U	0.00080	0.0024
beta-BHC		0.0024		0.00089	0.0024
Chlordane (technical)		0.74		0.019	0.079
delta-BHC		0.0024	U	0.00049	0.0024
Dieldrin		0.0048		0.0010	0.0024
Endosulfan I		0.0079	U	0.0012	0.0079
Endosulfan II		0.0079	U	0.0020	0.0079
Endosulfan sulfate		0.0079	U	0.00099	0.0079
Endrin		0.0079	U	0.0011	0.0079
Endrin aldehyde		0.0079	U	0.0019	0.0079
Endrin ketone		0.0079	U	0.0015	0.0079
gamma-BHC (Lindane)		0.0031		0.00073	0.0024
Heptachlor		0.0079	U	0.00094	0.0079
Heptachlor epoxide		0.18		0.0012	0.0079
Methoxychlor		0.0079	U	0.0018	0.0079
Toxaphene		0.079	U	0.029	0.079

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	126		69 - 150
Tetrachloro-m-xylene	128		74 - 150

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-065(18"-24")

Lab Sample ID: 460-158498-34 Date Sampled: 06/15/2018 1405
Client Matrix: Solid % Moisture: 15.6 Date Received: 06/15/2018 2120

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Prep Method:	3546	Prep Batch:	460-529242	Initial Weight/Volume:	15.0216 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/20/2018 2124			Injection Volume:	1 uL
Prep Date:	06/19/2018 2313			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	125		69 - 150
Tetrachloro-m-xylene	126		74 - 150

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-015N(0-3")**

Lab Sample ID: 460-158498-1 | Date Sampled: 06/15/2018 1005
Client Matrix: Solid | % Moisture: 11.2 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	40			Initial Weight/Volume:	0.64 g
Analysis Date:	06/21/2018 1253			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		18.8		0.42	0.72

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-015N(18"-24")

Lab Sample ID: 460-158498-2 Date Sampled: 06/15/2018 1010
Client Matrix: Solid % Moisture: 7.7 Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	3.0			Initial Weight/Volume:	0.61 g
Analysis Date:	06/21/2018 1207			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.5		0.032	0.054

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-015E(0-3")**

Lab Sample ID: 460-158498-3 | Date Sampled: 06/15/2018 1030
Client Matrix: Solid | % Moisture: 14.1 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	40			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1209			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		27.4		0.44	0.75

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-015E(18"-24")**

Lab Sample ID: 460-158498-4 | Date Sampled: 06/15/2018 1035
Client Matrix: Solid | % Moisture: 9.1 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.62 g
Analysis Date:	06/21/2018 1211			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		8.8		0.11	0.18

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: SS-015S(0-3")

Lab Sample ID: 460-158498-5
Client Matrix: Solid

% Moisture: 14.5

Date Sampled: 06/15/2018 1055
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	20			Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1301			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		10.3		0.23	0.40

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-015S(18"-24")**

Lab Sample ID: 460-158498-6 | Date Sampled: 06/15/2018 1100
Client Matrix: Solid | % Moisture: 8.6 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1302			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		4.0		0.10	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-015W(0-3")**

Lab Sample ID: 460-158498-7 | Date Sampled: 06/15/2018 1120
Client Matrix: Solid | % Moisture: 16.4 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	100			Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1305			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		41.3		1.2	2.0

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-015W(18"-24")**

Lab Sample ID: 460-158498-8 | Date Sampled: 06/15/2018 1125
Client Matrix: Solid | % Moisture: 9.3 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.67 g
Analysis Date:	06/21/2018 1008			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		3.9		0.099	0.17

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-019N(0-3")**

Lab Sample ID: 460-158498-9 | Date Sampled: 06/15/2018 1200
Client Matrix: Solid | % Moisture: 5.5 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.67 g
Analysis Date:	06/21/2018 1307			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.88		0.095	0.16

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: **SS-019N(18"-24")**

Lab Sample ID: 460-158498-10
Client Matrix: Solid
% Moisture: 11.8

Date Sampled: 06/15/2018 1205
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	40			Initial Weight/Volume:	0.64 g
Analysis Date:	06/21/2018 1321			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		23.5		0.43	0.72

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-019E (0-3")**

Lab Sample ID: 460-158498-11 | Date Sampled: 06/15/2018 1242
Client Matrix: Solid | % Moisture: 10.7 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	20			Initial Weight/Volume:	0.65 g
Analysis Date:	06/21/2018 1223			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		11.6		0.21	0.35

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-019E (18"-24")**

Lab Sample ID: 460-158498-12 | Date Sampled: 06/15/2018 1245
Client Matrix: Solid | % Moisture: 11.4 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	2.0			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1225			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.2		0.022	0.037

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: SS-019S (0-3")

Lab Sample ID: 460-158498-13 | Date Sampled: 06/15/2018 1305
Client Matrix: Solid | % Moisture: 8.9 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.61 g
Analysis Date:	06/21/2018 1033			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		3.4		0.11	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-019S (18"-24")**

Lab Sample ID: 460-158498-14 | Date Sampled: 06/15/2018 1310
Client Matrix: Solid | % Moisture: 12.3 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1233			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.53		0.011	0.018

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-019W (0-3")**

Lab Sample ID: 460-158498-15 | Date Sampled: 06/15/2018 1330
Client Matrix: Solid | % Moisture: 9.6 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.62 g
Analysis Date:	06/21/2018 1038			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		8.2		0.11	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-019W (18"-24")**

Lab Sample ID: 460-158498-16 | Date Sampled: 06/15/2018 1335
Client Matrix: Solid | % Moisture: 12.8 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.65 g
Analysis Date:	06/21/2018 1040			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		2.0		0.11	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-026N (0-3")**

Lab Sample ID: 460-158498-17 | Date Sampled: 06/15/2018 0750
Client Matrix: Solid | % Moisture: 10.8 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1047			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		4.3		0.11	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-026N (18"-24")**

Lab Sample ID: 460-158498-18 | Date Sampled: 06/15/2018 0755
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.67 g
Analysis Date:	06/21/2018 1049			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		3.5		0.098	0.17

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-026E (0-3")**

Lab Sample ID: 460-158498-19 | Date Sampled: 06/15/2018 0820
Client Matrix: Solid | % Moisture: 5.4 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1234			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.22		0.010	0.017

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: **SS-026E (18"-24")**

Lab Sample ID: 460-158498-20
Client Matrix: Solid

% Moisture: 5.8

Date Sampled: 06/15/2018 0825
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	06/21/2018 1237			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.026		0.0098	0.017

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-026S(0-3")**

Lab Sample ID: 460-158498-21 | Date Sampled: 06/15/2018 0845
Client Matrix: Solid | % Moisture: 9.7 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	06/21/2018 1239			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.66		0.011	0.019

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-026S(18"-24")**

Lab Sample ID: 460-158498-22 | Date Sampled: 06/15/2018 0850
Client Matrix: Solid | % Moisture: 7.4 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1057			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		6.1		0.10	0.17

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-026W(0-3")**

Lab Sample ID: 460-158498-23 | Date Sampled: 06/15/2018 0915
Client Matrix: Solid | % Moisture: 10.3 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	20			Initial Weight/Volume:	0.62 g
Analysis Date:	06/21/2018 1241			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		14.5		0.22	0.37

Client: PW Grosser Consulting Job Number: 460-158498-1

Client Sample ID: SS-026W(18"-24")

Lab Sample ID: 460-158498-24 Date Sampled: 06/15/2018 0920
Client Matrix: Solid % Moisture: 14.1 Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.64 g
Analysis Date:	06/21/2018 1244			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		6.9		0.11	0.19

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: SS-061(0-3")

Lab Sample ID: 460-158498-25
Client Matrix: Solid

% Moisture: 10.5

Date Sampled: 06/15/2018 1245
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.62 g
Analysis Date:	06/21/2018 1104			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		5.0		0.11	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-061(18"-24")**

Lab Sample ID: 460-158498-26 | Date Sampled: 06/15/2018 1250
Client Matrix: Solid | % Moisture: 8.6 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.66 g
Analysis Date:	06/21/2018 1107			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		2.7		0.10	0.17

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-062(0-3")**

Lab Sample ID: 460-158498-27 | Date Sampled: 06/15/2018 1300
Client Matrix: Solid | % Moisture: 21.8 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.64 g
Analysis Date:	06/21/2018 1127			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		2.9		0.12	0.20

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-062(18"-24")**

Lab Sample ID: 460-158498-28 | Date Sampled: 06/15/2018 1305
Client Matrix: Solid | % Moisture: 12.0 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.66 g
Analysis Date:	06/21/2018 1129			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		4.2		0.10	0.18

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-063(0-3")**

Lab Sample ID: 460-158498-29 | Date Sampled: 06/15/2018 1315
Client Matrix: Solid | % Moisture: 12.1 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.63 g
Analysis Date:	06/21/2018 1131			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.8		0.11	0.18

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: **SS-063(18"-24")**

Lab Sample ID: 460-158498-30
Client Matrix: Solid
% Moisture: 9.3

Date Sampled: 06/15/2018 1320
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	30			Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1246			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		17.9		0.33	0.56

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-064(0-3")**

Lab Sample ID: 460-158498-31 | Date Sampled: 06/15/2018 1335
Client Matrix: Solid | % Moisture: 9.0 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	06/21/2018 1249			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.40		0.011	0.018

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: **SS-064(18"-24")**

Lab Sample ID: 460-158498-32
Client Matrix: Solid
% Moisture: 15.8

Date Sampled: 06/15/2018 1340
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.65 g
Analysis Date:	06/21/2018 1143			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.9		0.11	0.19

Client: PW Grosser Consulting | Job Number: 460-158498-1

Client Sample ID: **SS-065(0-3")**

Lab Sample ID: 460-158498-33 | Date Sampled: 06/15/2018 1400
Client Matrix: Solid | % Moisture: 6.9 | Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	10			Initial Weight/Volume:	0.64 g
Analysis Date:	06/21/2018 1145			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.5		0.10	0.17

Client: PW Grosser Consulting

Job Number: 460-158498-1

Client Sample ID: **SS-065(18"-24")**

Lab Sample ID: 460-158498-34
Client Matrix: Solid

% Moisture: 15.6

Date Sampled: 06/15/2018 1405
Date Received: 06/15/2018 2120

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1251			Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.16		0.012	0.020

General Chemistry

Client Sample ID: SS-015N(0-3")

Lab Sample ID: 460-158498-1 Date Sampled: 06/15/2018 1005
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	88.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-015N(18"-24")

Lab Sample ID: 460-158498-2 Date Sampled: 06/15/2018 1010
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	92.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-015E(0-3")**

Lab Sample ID: 460-158498-3 Date Sampled: 06/15/2018 1030
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	85.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-015E(18"-24")

Lab Sample ID: 460-158498-4 Date Sampled: 06/15/2018 1035
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	90.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-015S(0-3")**

Lab Sample ID: 460-158498-5 Date Sampled: 06/15/2018 1055
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	85.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-015S(18"-24")

Lab Sample ID: 460-158498-6 Date Sampled: 06/15/2018 1100
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	91.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-015W(0-3")

Lab Sample ID: 460-158498-7 Date Sampled: 06/15/2018 1120
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	16.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N
Percent Solids	83.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529079	Analysis Date: 06/19/2018 1337						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-015W(18"-24")**

Lab Sample ID: 460-158498-8 Date Sampled: 06/15/2018 1125
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	90.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019N(0-3")**

Lab Sample ID: 460-158498-9 Date Sampled: 06/15/2018 1200
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	94.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019N(18"-24")**

Lab Sample ID: 460-158498-10 Date Sampled: 06/15/2018 1205
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	88.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019E (0-3")**

Lab Sample ID: 460-158498-11 Date Sampled: 06/15/2018 1242
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	89.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019E (18"-24")**

Lab Sample ID: 460-158498-12 Date Sampled: 06/15/2018 1245
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	88.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-019S (0-3")

Lab Sample ID: 460-158498-13 Date Sampled: 06/15/2018 1305
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	91.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-019S (18"-24")

Lab Sample ID: 460-158498-14 Date Sampled: 06/15/2018 1310
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	87.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-019W (0-3")

Lab Sample ID: 460-158498-15 Date Sampled: 06/15/2018 1330
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	90.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019W (18"-24")**

Lab Sample ID: 460-158498-16 Date Sampled: 06/15/2018 1335
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	87.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-026N (0-3")

Lab Sample ID: 460-158498-17 Date Sampled: 06/15/2018 0750
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	89.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-026N (18"-24")**

Lab Sample ID: 460-158498-18 Date Sampled: 06/15/2018 0755
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	91.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-026E (0-3")

Lab Sample ID: 460-158498-19 Date Sampled: 06/15/2018 0820
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	94.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-026E (18"-24")

Lab Sample ID: 460-158498-20 Date Sampled: 06/15/2018 0825
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	94.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-026S(0-3")**

Lab Sample ID: 460-158498-21 Date Sampled: 06/15/2018 0845
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	90.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-026S(18"-24")**

Lab Sample ID: 460-158498-22 Date Sampled: 06/15/2018 0850
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	92.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-026W(0-3")

Lab Sample ID: 460-158498-23 Date Sampled: 06/15/2018 0915
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	89.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-026W(18"-24")**

Lab Sample ID: 460-158498-24 Date Sampled: 06/15/2018 0920
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	85.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-061(0-3")

Lab Sample ID: 460-158498-25 Date Sampled: 06/15/2018 1245
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	89.5		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-061(18"-24")**

Lab Sample ID: 460-158498-26 Date Sampled: 06/15/2018 1250
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	91.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-062(0-3")

Lab Sample ID: 460-158498-27 Date Sampled: 06/15/2018 1300
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	21.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N
Percent Solids	78.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529086	Analysis Date: 06/19/2018 1353						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-062(18"-24")**

Lab Sample ID: 460-158498-28 Date Sampled: 06/15/2018 1305
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529352	Analysis Date: 06/20/2018 0906						DryWt Corrected: N
Percent Solids	88.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529352	Analysis Date: 06/20/2018 0906						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-063(0-3")

Lab Sample ID: 460-158498-29 Date Sampled: 06/15/2018 1315
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529352	Analysis Date: 06/20/2018 0906						DryWt Corrected: N
Percent Solids	87.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529352	Analysis Date: 06/20/2018 0906						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-063(18"-24")**

Lab Sample ID: 460-158498-30 Date Sampled: 06/15/2018 1320
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529405	Analysis Date: 06/20/2018 1035						DryWt Corrected: N
Percent Solids	90.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529405	Analysis Date: 06/20/2018 1035						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-064(0-3")

Lab Sample ID: 460-158498-31 Date Sampled: 06/15/2018 1335
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529405	Analysis Date: 06/20/2018 1035						DryWt Corrected: N
Percent Solids	91.0		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529405	Analysis Date: 06/20/2018 1035						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-064(18"-24")**

Lab Sample ID: 460-158498-32 Date Sampled: 06/15/2018 1340
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529405	Analysis Date: 06/20/2018 1035						DryWt Corrected: N
Percent Solids	84.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529405	Analysis Date: 06/20/2018 1035						DryWt Corrected: N

General Chemistry

Client Sample ID: SS-065(0-3")

Lab Sample ID: 460-158498-33 Date Sampled: 06/15/2018 1400
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529428	Analysis Date: 06/20/2018 1209						DryWt Corrected: N
Percent Solids	93.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529428	Analysis Date: 06/20/2018 1209						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-065(18"-24")**

Lab Sample ID: 460-158498-34 Date Sampled: 06/15/2018 1405
Client Matrix: Solid Date Received: 06/15/2018 2120

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.6		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529352	Analysis Date: 06/20/2018 0906						DryWt Corrected: N
Percent Solids	84.4		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-529352	Analysis Date: 06/20/2018 0906						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: PW Grosser Consulting Job Number: 460-158498-1

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
Metals		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

QUALITY CONTROL RESULTS

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-529242					
LCS 460-529242/2-A	Lab Control Sample	T	Solid	3546	
MB 460-529242/1-A	Method Blank	T	Solid	3546	
460-158209-A-38-A MSDL	Matrix Spike	T	Solid	3546	
460-158209-A-38-B MSDDL	Matrix Spike Duplicate	T	Solid	3546	
460-158498-25DL	SS-061(0-3")	T	Solid	3546	
460-158498-26	SS-061(18"-24")	T	Solid	3546	
460-158498-27DL	SS-062(0-3")	T	Solid	3546	
460-158498-28	SS-062(18"-24")	T	Solid	3546	
460-158498-29DL	SS-063(0-3")	T	Solid	3546	
460-158498-30	SS-063(18"-24")	T	Solid	3546	
460-158498-31DL	SS-064(0-3")	T	Solid	3546	
460-158498-32	SS-064(18"-24")	T	Solid	3546	
460-158498-33	SS-065(0-3")	T	Solid	3546	
460-158498-34	SS-065(18"-24")	T	Solid	3546	
Analysis Batch:460-529459					
LCS 460-529242/2-A	Lab Control Sample	T	Solid	8081B	460-529242
MB 460-529242/1-A	Method Blank	T	Solid	8081B	460-529242
460-158498-26	SS-061(18"-24")	T	Solid	8081B	460-529242
460-158498-28	SS-062(18"-24")	T	Solid	8081B	460-529242
460-158498-30	SS-063(18"-24")	T	Solid	8081B	460-529242
460-158498-32	SS-064(18"-24")	T	Solid	8081B	460-529242
460-158498-33	SS-065(0-3")	T	Solid	8081B	460-529242
460-158498-34	SS-065(18"-24")	T	Solid	8081B	460-529242
Analysis Batch:460-529718					
460-158209-A-38-A MSDL	Matrix Spike	T	Solid	8081B	460-529242
460-158209-A-38-B MSDDL	Matrix Spike Duplicate	T	Solid	8081B	460-529242
460-158498-25DL	SS-061(0-3")	T	Solid	8081B	460-529242
460-158498-27DL	SS-062(0-3")	T	Solid	8081B	460-529242
460-158498-29DL	SS-063(0-3")	T	Solid	8081B	460-529242
460-158498-31DL	SS-064(0-3")	T	Solid	8081B	460-529242

Report Basis
T = Total

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-529647					
LCSSRM 460-529647/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-529647/10-A	Method Blank	T	Solid	7471B	
460-158424-E-1-D DU	Duplicate	T	Solid	7471B	
460-158424-E-1-E MS	Matrix Spike	T	Solid	7471B	
460-158498-1	SS-015N(0-3")	T	Solid	7471B	
460-158498-2	SS-015N(18"-24")	T	Solid	7471B	
460-158498-3	SS-015E(0-3")	T	Solid	7471B	
460-158498-4	SS-015E(18"-24")	T	Solid	7471B	
460-158498-5	SS-015S(0-3")	T	Solid	7471B	
460-158498-6	SS-015S(18"-24")	T	Solid	7471B	
Prep Batch: 460-529668					
LCSSRM 460-529668/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-529668/1-A	Method Blank	T	Solid	7471B	
460-158498-7	SS-015W(0-3")	T	Solid	7471B	
460-158498-8	SS-015W(18"-24")	T	Solid	7471B	
460-158498-8DU	Duplicate	T	Solid	7471B	
460-158498-8MS	Matrix Spike	T	Solid	7471B	
460-158498-9	SS-019N(0-3")	T	Solid	7471B	
460-158498-10	SS-019N(18"-24")	T	Solid	7471B	
460-158498-11	SS-019E (0-3")	T	Solid	7471B	
460-158498-12	SS-019E (18"-24")	T	Solid	7471B	
460-158498-13	SS-019S (0-3")	T	Solid	7471B	
460-158498-14	SS-019S (18"-24")	T	Solid	7471B	
460-158498-15	SS-019W (0-3")	T	Solid	7471B	
460-158498-16	SS-019W (18"-24")	T	Solid	7471B	
460-158498-17	SS-026N (0-3")	T	Solid	7471B	
460-158498-18	SS-026N (18"-24")	T	Solid	7471B	
460-158498-19	SS-026E (0-3")	T	Solid	7471B	
460-158498-20	SS-026E (18"-24")	T	Solid	7471B	
460-158498-21	SS-026S(0-3")	T	Solid	7471B	
460-158498-22	SS-026S(18"-24")	T	Solid	7471B	
460-158498-23	SS-026W(0-3")	T	Solid	7471B	
460-158498-24	SS-026W(18"-24")	T	Solid	7471B	
460-158498-25	SS-061(0-3")	T	Solid	7471B	
460-158498-26	SS-061(18"-24")	T	Solid	7471B	

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-529670					
LCSSRM 460-529670/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-529670/1-A	Method Blank	T	Solid	7471B	
460-158425-A-8-D DU	Duplicate	T	Solid	7471B	
460-158425-D-8-D MS	Matrix Spike	T	Solid	7471B	
460-158498-27	SS-062(0-3")	T	Solid	7471B	
460-158498-28	SS-062(18"-24")	T	Solid	7471B	
460-158498-29	SS-063(0-3")	T	Solid	7471B	
460-158498-30	SS-063(18"-24")	T	Solid	7471B	
460-158498-31	SS-064(0-3")	T	Solid	7471B	
460-158498-32	SS-064(18"-24")	T	Solid	7471B	
460-158498-33	SS-065(0-3")	T	Solid	7471B	
460-158498-34	SS-065(18"-24")	T	Solid	7471B	

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:460-529826					
LCSSRM 460-529647/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	460-529647
MB 460-529647/10-A	Method Blank	T	Solid	7471B	460-529647
LCSSRM 460-529668/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-529668
MB 460-529668/1-A	Method Blank	T	Solid	7471B	460-529668
LCSSRM 460-529670/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-529670
MB 460-529670/1-A	Method Blank	T	Solid	7471B	460-529670
460-158424-E-1-D DU	Duplicate	T	Solid	7471B	460-529647
460-158424-E-1-E MS	Matrix Spike	T	Solid	7471B	460-529647
460-158425-A-8-D DU	Duplicate	T	Solid	7471B	460-529670
460-158425-D-8-D MS	Matrix Spike	T	Solid	7471B	460-529670
460-158498-1	SS-015N(0-3")	T	Solid	7471B	460-529647
460-158498-2	SS-015N(18"-24")	T	Solid	7471B	460-529647
460-158498-3	SS-015E(0-3")	T	Solid	7471B	460-529647
460-158498-4	SS-015E(18"-24")	T	Solid	7471B	460-529647
460-158498-5	SS-015S(0-3")	T	Solid	7471B	460-529647
460-158498-6	SS-015S(18"-24")	T	Solid	7471B	460-529647
460-158498-7	SS-015W(0-3")	T	Solid	7471B	460-529668
460-158498-8	SS-015W(18"-24")	T	Solid	7471B	460-529668
460-158498-8DU	Duplicate	T	Solid	7471B	460-529668
460-158498-8MS	Matrix Spike	T	Solid	7471B	460-529668
460-158498-9	SS-019N(0-3")	T	Solid	7471B	460-529668
460-158498-10	SS-019N(18"-24")	T	Solid	7471B	460-529668
460-158498-11	SS-019E (0-3")	T	Solid	7471B	460-529668
460-158498-12	SS-019E (18"-24")	T	Solid	7471B	460-529668
460-158498-13	SS-019S (0-3")	T	Solid	7471B	460-529668
460-158498-14	SS-019S (18"-24")	T	Solid	7471B	460-529668
460-158498-15	SS-019W (0-3")	T	Solid	7471B	460-529668
460-158498-16	SS-019W (18"-24")	T	Solid	7471B	460-529668
460-158498-17	SS-026N (0-3")	T	Solid	7471B	460-529668
460-158498-18	SS-026N (18"-24")	T	Solid	7471B	460-529668
460-158498-19	SS-026E (0-3")	T	Solid	7471B	460-529668
460-158498-20	SS-026E (18"-24")	T	Solid	7471B	460-529668
460-158498-21	SS-026S(0-3")	T	Solid	7471B	460-529668
460-158498-22	SS-026S(18"-24")	T	Solid	7471B	460-529668
460-158498-23	SS-026W(0-3")	T	Solid	7471B	460-529668
460-158498-24	SS-026W(18"-24")	T	Solid	7471B	460-529668
460-158498-25	SS-061(0-3")	T	Solid	7471B	460-529668
460-158498-26	SS-061(18"-24")	T	Solid	7471B	460-529668
460-158498-27	SS-062(0-3")	T	Solid	7471B	460-529670
460-158498-28	SS-062(18"-24")	T	Solid	7471B	460-529670
460-158498-29	SS-063(0-3")	T	Solid	7471B	460-529670
460-158498-30	SS-063(18"-24")	T	Solid	7471B	460-529670
460-158498-31	SS-064(0-3")	T	Solid	7471B	460-529670
460-158498-32	SS-064(18"-24")	T	Solid	7471B	460-529670
460-158498-33	SS-065(0-3")	T	Solid	7471B	460-529670
460-158498-34	SS-065(18"-24")	T	Solid	7471B	460-529670

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					

Report Basis
T = Total

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-529079					
460-158498-1	SS-015N(0-3")	T	Solid	Moisture	
460-158498-2	SS-015N(18"-24")	T	Solid	Moisture	
460-158498-3	SS-015E(0-3")	T	Solid	Moisture	
460-158498-4	SS-015E(18"-24")	T	Solid	Moisture	
460-158498-5	SS-015S(0-3")	T	Solid	Moisture	
460-158498-6	SS-015S(18"-24")	T	Solid	Moisture	
460-158498-7	SS-015W(0-3")	T	Solid	Moisture	
460-158498-7DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-529086					
460-158498-8	SS-015W(18"-24")	T	Solid	Moisture	
460-158498-9	SS-019N(0-3")	T	Solid	Moisture	
460-158498-10	SS-019N(18"-24")	T	Solid	Moisture	
460-158498-11	SS-019E (0-3")	T	Solid	Moisture	
460-158498-12	SS-019E (18"-24")	T	Solid	Moisture	
460-158498-13	SS-019S (0-3")	T	Solid	Moisture	
460-158498-14	SS-019S (18"-24")	T	Solid	Moisture	
460-158498-15	SS-019W (0-3")	T	Solid	Moisture	
460-158498-16	SS-019W (18"-24")	T	Solid	Moisture	
460-158498-17	SS-026N (0-3")	T	Solid	Moisture	
460-158498-18	SS-026N (18"-24")	T	Solid	Moisture	
460-158498-19	SS-026E (0-3")	T	Solid	Moisture	
460-158498-20	SS-026E (18"-24")	T	Solid	Moisture	
460-158498-21	SS-026S(0-3")	T	Solid	Moisture	
460-158498-22	SS-026S(18"-24")	T	Solid	Moisture	
460-158498-23	SS-026W(0-3")	T	Solid	Moisture	
460-158498-24	SS-026W(18"-24")	T	Solid	Moisture	
460-158498-25	SS-061(0-3")	T	Solid	Moisture	
460-158498-26	SS-061(18"-24")	T	Solid	Moisture	
460-158498-27	SS-062(0-3")	T	Solid	Moisture	
460-158498-27DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-529352					
460-158488-A-6 DU	Duplicate	T	Solid	Moisture	
460-158498-28	SS-062(18"-24")	T	Solid	Moisture	
460-158498-29	SS-063(0-3")	T	Solid	Moisture	
460-158498-34	SS-065(18"-24")	T	Solid	Moisture	
Analysis Batch:460-529405					
460-158209-A-38 MS	Matrix Spike	T	Solid	Moisture	
460-158209-A-38 MSD	Matrix Spike Duplicate	T	Solid	Moisture	
460-158498-30	SS-063(18"-24")	T	Solid	Moisture	
460-158498-31	SS-064(0-3")	T	Solid	Moisture	
460-158498-32	SS-064(18"-24")	T	Solid	Moisture	
460-158498-32DU	Duplicate	T	Solid	Moisture	

Client: PW Grosser Consulting Job Number: 460-158498-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-529428					
460-158498-33	SS-065(0-3")	T	Solid	Moisture	
460-158533-D-5 DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: PW Grosser Consulting

Job Number: 460-158498-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCBP1 %Rec	DCBP2 %Rec	TCX1 %Rec	TCX2 %Rec
460-158498-25 DL	SS-061(0-3") DL	150	149	149	148
460-158498-26	SS-061(18"-24")	142	148	144	148
460-158498-27 DL	SS-062(0-3") DL	141	142	125	122
460-158498-28	SS-062(18"-24")	127	127	136	136
460-158498-29 DL	SS-063(0-3") DL	112	111	122	111
460-158498-30	SS-063(18"-24")	136	137	146	147
460-158498-31 DL	SS-064(0-3") DL	135	131	138	120
460-158498-32	SS-064(18"-24")	155X	149	147	145
460-158498-33	SS-065(0-3")	150	149	150	148
460-158498-34	SS-065(18"-24")	125	126	128	126
MB 460-529242/1-A		72	75	75	74
LCS 460-529242/2-A		76	76	81	81
460-158209-A-38-A MS DL		134	132	170X	153X
460-158209-A-38-B MSD DL		123	125	139	124

Surrogate	Acceptance Limits
DCBP = DCB Decachlorobiphenyl	69-150
TCX = Tetrachloro-m-xylene	74-150

Client: PW Grosser Consulting

Job Number: 460-158498-1

Method Blank - Batch: 460-529242

Method: 8081B
Preparation: 3546

Lab Sample ID:	MB 460-529242/1-A	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922382.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	06/20/2018 1707	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.0067	U	0.0011	0.0067
4,4'-DDE	0.0067	U	0.00079	0.0067
4,4'-DDT	0.0067	U	0.0012	0.0067
Aldrin	0.0067	U	0.0010	0.0067
alpha-BHC	0.0020	U	0.00068	0.0020
beta-BHC	0.0020	U	0.00075	0.0020
Chlordane (technical)	0.067	U	0.016	0.067
delta-BHC	0.0020	U	0.00041	0.0020
Dieldrin	0.0020	U	0.00087	0.0020
Endosulfan I	0.0067	U	0.0010	0.0067
Endosulfan II	0.0067	U	0.0017	0.0067
Endosulfan sulfate	0.0067	U	0.00084	0.0067
Endrin	0.0067	U	0.00096	0.0067
Endrin aldehyde	0.0067	U	0.0016	0.0067
Endrin ketone	0.0067	U	0.0013	0.0067
gamma-BHC (Lindane)	0.0020	U	0.00062	0.0020
Heptachlor	0.0067	U	0.00079	0.0067
Heptachlor epoxide	0.0067	U	0.0010	0.0067
Methoxychlor	0.0067	U	0.0015	0.0067
Toxaphene	0.067	U	0.024	0.067

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	75	69 - 150
Tetrachloro-m-xylene	75	74 - 150

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	72	69 - 150
Tetrachloro-m-xylene	74	74 - 150

Lab Control Sample - Batch: 460-529242

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-529242/2-A	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922383.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	06/20/2018 1720	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	0.133	0.107	81	67 - 130	
4,4'-DDE	0.133	0.106	79	70 - 127	
4,4'-DDT	0.133	0.101	76	70 - 122	
Aldrin	0.133	0.106	80	66 - 137	
alpha-BHC	0.133	0.115	86	65 - 142	
beta-BHC	0.133	0.108	81	70 - 132	
delta-BHC	0.133	0.115	86	65 - 136	
Dieldrin	0.133	0.105	79	70 - 134	
Endosulfan I	0.133	0.106	79	70 - 136	
Endosulfan II	0.133	0.111	83	72 - 127	
Endosulfan sulfate	0.133	0.103	77	71 - 128	
Endrin	0.133	0.108	81	74 - 129	
Endrin aldehyde	0.133	0.111	84	71 - 129	
Endrin ketone	0.133	0.114	85	68 - 135	
gamma-BHC (Lindane)	0.133	0.110	82	68 - 136	
Heptachlor	0.133	0.103	77	68 - 132	
Heptachlor epoxide	0.133	0.105	79	72 - 131	
Methoxychlor	0.133	0.0991	74	63 - 135	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	76	69 - 150
Tetrachloro-m-xylene	81	74 - 150

Lab Control Sample - Batch: 460-529242

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-529242/2-A	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922383.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	06/20/2018 1720	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	0.133	0.102	77	67 - 130	
4,4'-DDE	0.133	0.0994	75	70 - 127	
4,4'-DDT	0.133	0.0971	73	70 - 122	
Aldrin	0.133	0.101	76	66 - 137	
alpha-BHC	0.133	0.110	83	65 - 142	
beta-BHC	0.133	0.103	77	70 - 132	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Lab Control Sample - Batch: 460-529242

Method: 8081B
Preparation: 3546

Lab Sample ID:	LCS 460-529242/2-A	Analysis Batch:	460-529459	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922383.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	06/20/2018 1720	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
delta-BHC	0.133	0.108	81	65 - 136	
Dieldrin	0.133	0.0973	73	70 - 134	
Endosulfan I	0.133	0.0997	75	70 - 136	
Endosulfan II	0.133	0.103	77	72 - 127	
Endosulfan sulfate	0.133	0.102	76	71 - 128	
Endrin	0.133	0.0996	75	74 - 129	
Endrin aldehyde	0.133	0.103	77	71 - 129	
Endrin ketone	0.133	0.107	80	68 - 135	
gamma-BHC (Lindane)	0.133	0.105	79	68 - 136	
Heptachlor	0.133	0.0991	74	68 - 132	
Heptachlor epoxide	0.133	0.0987	74	72 - 131	
Methoxychlor	0.133	0.0949	71	63 - 135	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	76	69 - 150
Tetrachloro-m-xylene	81	74 - 150

Client: PW Grosser Consulting

Job Number: 460-158498-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-529242

Method: 8081B
Preparation: 3546

MS Lab Sample ID:	460-158209-A-38-A MSDL	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922420.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0333 g
Analysis Date:	06/21/2018 1106	Run Type:	DL	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	460-158209-A-38-B MSDD	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922421.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0485 g
Analysis Date:	06/21/2018 1119	Run Type:	DL	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	37	-1	67 - 130	35	30	F1	F1 F2
4,4'-DDE	109	140	70 - 127	25	30	p	F1
4,4'-DDT	62	55	70 - 122	12	30	F1	F1
Aldrin	152	134	66 - 137	13	30	F1	
alpha-BHC	127	99	65 - 142	24	30		
beta-BHC	59	39	70 - 132	41	30	F1	F1 F2
delta-BHC	11	5	65 - 136	66	30	F1	F1 F2
Dieldrin	58	44	70 - 134	22	30	F1	F1
Endosulfan I	106	88	70 - 136	19	30	p	p
Endosulfan II	4	0	72 - 127	NC	30	J F1	U F1
Endosulfan sulfate	0	0	71 - 128	NC	30	U F1	U F1
Endrin	77	68	74 - 129	12	30		F1
Endrin aldehyde	0	0	71 - 129	NC	30	U F1	U F1
Endrin ketone	0	3	68 - 135	NC	30	U F1	J p F1
gamma-BHC (Lindane)	128	83	68 - 136	42	30		F2
Heptachlor	0	97	68 - 132	NC	30	U F1	
Heptachlor epoxide	103	87	72 - 131	16	30		
Methoxychlor	6	7	63 - 135	12	30	J p F1	J p F1

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	134		125	69 - 150
Tetrachloro-m-xylene	170	X	139	74 - 150

Client: PW Grosser Consulting

Job Number: 460-158498-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-529242

Method: 8081B
Preparation: 3546

MS Lab Sample ID:	460-158209-A-38-A MSDL	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922420.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0333 g
Analysis Date:	06/21/2018 1106	Run Type:	DL	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

MSD Lab Sample ID:	460-158209-A-38-B MSDD	Analysis Batch:	460-529718	Instrument ID:	CPESTGC5
Client Matrix:	Solid	Prep Batch:	460-529242	Lab File ID:	5F922421.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0485 g
Analysis Date:	06/21/2018 1119	Run Type:	DL	Final Weight/Volume:	10 mL
Prep Date:	06/19/2018 2313			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	41	4	67 - 130	35	30	F1	F1 F2
4,4'-DDE	173	94	70 - 127	59	30	F1	F2
4,4'-DDT	62	54	70 - 122	14	30	F1	F1
Aldrin	152	127	66 - 137	18	30	F1	
alpha-BHC	119	99	65 - 142	19	30		
beta-BHC	56	37	70 - 132	40	30	F1	F1 F2
delta-BHC	9	5	65 - 136	55	30	F1	F1 F2
Dieldrin	58	45	70 - 134	23	30	F1	F1
Endosulfan I	174	146	70 - 136	17	30	F1	F1
Endosulfan II	4	0	72 - 127	NC	30	J F1	U F1
Endosulfan sulfate	0	0	71 - 128	NC	30	U F1	U F1
Endrin	73	64	74 - 129	13	30	F1	F1
Endrin aldehyde	0	0	71 - 129	NC	30	U F1	U F1
Endrin ketone	0	6	68 - 135	NC	30	U F1	J F1
gamma-BHC (Lindane)	126	81	68 - 136	44	30		F2
Heptachlor	0	93	68 - 132	NC	30	U F1	
Heptachlor epoxide	102	83	72 - 131	20	30		
Methoxychlor	123	112	63 - 135	9	30		

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	132		123	69 - 150
Tetrachloro-m-xylene	153	X	124	74 - 150

Client: PW Grosser Consulting

Job Number: 460-158498-1

Method Blank - Batch: 460-529647

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-529647/10-A	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 0901	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-529647

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-529647/11-	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 0903	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	12.08	102.3	70.3 - 129.7	

Matrix Spike - Batch: 460-529647

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158424-E-1-E MS	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.65 g
Analysis Date:	06/21/2018 0908	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.026	0.0863	0.123	113	75 - 125	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529647

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158424-E-1-D DU	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529647	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.65 g
Analysis Date:	06/21/2018 0907	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0501				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.026	0.0288	10	20	

Client: PW Grosser Consulting Job Number: 460-158498-1

Method Blank - Batch: 460-529668

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-529668/1-A	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1004	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-529668

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-529668/2-A	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1007	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	12.09	102.5	70.3 - 129.7	

Matrix Spike - Batch: 460-529668

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158498-8	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.67 g
Analysis Date:	06/21/2018 1013	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	3.9	0.0822	2.28	-1941	75 - 125	4

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529668

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158498-8	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529668	Lab File ID:	529647HG1.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.67 g
Analysis Date:	06/21/2018 1011	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0529				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	3.9	3.65	6	20	

Client: PW Grosser Consulting Job Number: 460-158498-1

Method Blank - Batch: 460-529670

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-529670/1-A	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1114	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-529670

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-529670/2-A	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	06/21/2018 1116	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	12.45	105.5	70.3 - 129.7	

Matrix Spike - Batch: 460-529670

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158425-D-8-D MS	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.61 g
Analysis Date:	06/21/2018 1122	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.53	0.136	0.597	47	75 - 125	F1

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529670

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158425-A-8-D DU	Analysis Batch:	460-529826	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-529670	Lab File ID:	529647HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.61 g
Analysis Date:	06/21/2018 1120	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/21/2018 0556				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.53	0.551	3	20	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529079

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158498-7	Analysis Batch:	460-529079	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/19/2018 1337	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	16.4	16.0	3	20	
Percent Solids	83.6	84.0	0.5	20	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529086

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158498-27	Analysis Batch:	460-529086	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/19/2018 1353	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	21.8	21.2	3	20	
Percent Solids	78.2	78.8	0.8	20	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529352

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158488-A-6 DU	Analysis Batch:	460-529352	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/20/2018 0906	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	18.1	19.1	5	20	
Percent Solids	81.9	80.9	1	20	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529405

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158498-32	Analysis Batch:	460-529405	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/20/2018 1035	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	15.8	16.7	5	20	
Percent Solids	84.2	83.3	1	20	

Client: PW Grosser Consulting

Job Number: 460-158498-1

Duplicate - Batch: 460-529428

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158533-D-5 DU	Analysis Batch:	460-529428	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/20/2018 1209	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	15.3	13.8	10	20	
Percent Solids	84.7	86.2	2	20	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

NYSC
460501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) Nick Iannucci	Site/Project Identification RSL1801
Company PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: DKQP: ☐
Address 630 Johnson Ave Ste.7	Analysis Turnaround Time: Standard ☐	LAB USE ONLY Project No:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ 5-day	Job No: 158498
Phone (631)589-6353 Fax		

ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of. Cont.	Mercury	Sample Numbers
SS-015N (0-3")	6/15/18	1005	S	1	X	1
SS-015N (18"-24")	↓	1010	↓	1	X	2
SS-015E (0-3")	↓	1030	↓	1	X	3
SS-015E (18"-24")	↓	1035	↓	1	X	4
SS-015S (0-3")	↓	1055	↓	1	X	5
SS-015S (18"-24")	↓	1100	↓	1	X	6
SS-015W (0-3")	↓	1120	↓	1	X	7
SS-015W (18"-24")	↓	1125	↓	1	X	8
SS-019N (0-3")	↓	1200	↓	1	X	9
SS-019N (18"-24")	↓	1205	↓	1	X	10

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:
Water:

460-158498 Chain of Custody

Special Instructions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
[signature]	PWGC	6/15/18 1533	1) [signature]	TA
2) [signature]	TA	6/15/18 1758	2) —	TA
3) —	TA	6/15/18 21:20	3) [signature]	TA EDI
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

2.8 (2.5 TRA 4 NOCS

TAL - 0016 (0715)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NYSC 460501

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) Nick Iannucci	Site/Project Identification RSL 1801
Company PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: DKQP: ☐
Address 630 Johnson Ave. Ste. 7	Analysis Turnaround Time: Standard ☐	
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ 5-day	
Phone (631)589-6353 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury										LAB USE ONLY Sample Numbers
SS-019E	6/15/18	1242	S	1	X										11
SS-019E		1245		1	X										12
SS-019S		1305		1	X										13
SS-019S		1310		1	X										14
SS-019W		1330		1	X										15
SS-019W		1335		1	X										16
SS-026N		750		1	X										17
SS-026N		755		1	X										18
SS-026E		820		1	X										19
SS-026E		825		1	X										20

LAB USE ONLY Project No:

Job No: 158498

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

Relinquished by 1)	Company PWGC	Date / Time 6/15/18 1533	Received by 1)	Company TA
Relinquished by 2)	Company TA	Date / Time 6/16/18 1117	Received by 2)	Company TA
Relinquished by 3)	Company TA	Date / Time 6/16/18 2130	Received by 3)	Company TAGOL
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NYSC
460501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Jennifer Lewis	Nick Iannucci	RSL1801
Company: PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program:
Address: 630 Johnson Ave Ste 7	Analysis Turnaround Time: Standard ☐	
City: Bohemia State: NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☒ 5-day	
Phone: (631) 589-6353 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Pesticides	Sample Numbers
SS-026S(0-3")	6/15/18	845	S	1	X		21
SS-026S(18"-24")		850		1	X		22
SS-026W(0-3")		915		1	X		23
SS-026W(18"-24")		920		1	X		24
SS-061(0-3")		1245		1	X	X	25
SS-061(18"-24")		1250		1	X	X	26
SS-062(0-3")		1300		1	X	X	27
SS-062(18"-24")		1305		1	X	X	28
SS-063(0-3")		1315		1	X	X	29
SS-063(18"-24")	↓	1320	↓	1	X	X	30

LAB USE ONLY
Project No:
Job No: 158498

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:
6 = Other _____, 7 = Other _____ — Water:

Special Instructions

Water Metals Filtered (Yes/No)? _____

	Company	Date / Time		Company
Relinquished by 1)	PWGC	6/15/18	1533	Received by 1)	TA
Relinquished by 2)	TA	6/15/18	1733	Received by 2)	
Relinquished by 3)		6/16/18	1213	Received by 3)	TA 601
Relinquished by 4)				Received by 4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

NYSC
460501

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) Nick Iannucci	Site/Project Identification RSL 1801
Company PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program:
Address 630 Johnson Ave Ste 7	Analysis Turnaround Time: Standard ☐	
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐	
Phone (631)589-6353 Fax	Other ☒ 5-day	

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Pesticides	Sample Numbers
SS-064 (0-3")	6/15/18	1335	S	1	X	X	31
SS-064 (18"-24")	↓	1340	↓	1	X	X	32
SS-065 (0-3")		1400		1	X	X	33
SS-065 (18"-24")	↓	1405	↓	1	X	X	34

LAB USE ONLY
Project No:
Job No: 158498

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:
6 = Other _____, 7 = Other _____ Water:

Special Instructions

Water Metals Filtered (Yes/No)? _____

	Relinquished by	Company	Date / Time	Received by	Company
1)		PWGC	6/15/18 1533		TA
2)		TA	6/15/18 1700		TA
3)		TA	6/16/18 1230		TA01
4)					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 158498

Number of Coolers: 1 IR Gun # 16

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.5 °C	2.5 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 6/15/18

Login Sample Receipt Checklist

Client: PW Grosser Consulting

Job Number: 460-158498-1

Login Number: 158498
List Number: 1
Creator: Jara, Kelly D

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-158511-1

Job Description: RSL1801

For:
PW Grosser Consulting
630 Johnson Ave
Suite 7
Bohemia, NY 11716

Attention: Ms. Jennifer Lewis

Approved for release.
Thomas A Chupela
Project Management Assistant I
7/3/2018 9:37 AM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
07/03/2018

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

Job Number: 460-158511-1

Job Description: RSL1801

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Approved for release.
Thomas A Chupela
Project Management Assistant I
7/3/2018 9:37 AM

Designee for
Melissa Haas

CASE NARRATIVE

Client: PW Grosser Consulting

Project: RSL1801

Report Number: 460-158511-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 6/15/2018 9:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

Receipt Exceptions

The following samples were activated for contingent Hg analysis by the client on 6/25/18 on a 5 day TAT: SS-015E(30"-36") (460-158511-3), SS-015E(36"-42") (460-158511-4), SS-019N(30"-36") (460-158511-9) and SS-019N(36"-42") (460-158511-10).

All remaining samples on hold were cancelled by the client on 7/3/18.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL MERCURY

Samples SS-015E(30"-36") (460-158511-3), SS-015E(36"-42") (460-158511-4), SS-019N(30"-36") (460-158511-9) and SS-019N(36"-42") (460-158511-10) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 07/02/2018.

Mercury failed the recovery criteria high for the Matrix Spike (MS) of sample SS-015E(30"-36")MS (460-158511-3) in batch 460-532867.

Refer to the QC report for details.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SS-015E(30"-36") (460-158511-3), SS-015E(36"-42") (460-158511-4), SS-019N(30"-36") (460-158511-9) and SS-019N(36"-42") (460-158511-10) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 06/28/2018.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: PW Grosser Consulting Job Number: 460-158511-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-158511-3	**SS-015E(30"-36")**					
Mercury		0.32	F1	0.017	mg/Kg	7471B
Percent Moisture		4.9		1.0	%	Moisture
Percent Solids		95.1		1.0	%	Moisture
460-158511-4	**SS-015E(36"-42")**					
Mercury		0.53		0.017	mg/Kg	7471B
Percent Moisture		6.7		1.0	%	Moisture
Percent Solids		93.3		1.0	%	Moisture
460-158511-9	**SS-019N(30"-36")**					
Mercury		0.69		0.019	mg/Kg	7471B
Percent Moisture		10.8		1.0	%	Moisture
Percent Solids		89.2		1.0	%	Moisture
460-158511-10	**SS-019N(36"-42")**					
Mercury		0.30		0.018	mg/Kg	7471B
Percent Moisture		9.1		1.0	%	Moisture
Percent Solids		90.9		1.0	%	Moisture

METHOD SUMMARY

Client: PW Grosser Consulting Job Number: 460-158511-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Mercury (CVAA)	TAL EDI	SW846 7471B	
Preparation, Mercury	TAL EDI		SW846 7471B
Percent Moisture	TAL EDI	EPA Moisture	

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: PW Grosser Consulting

Job Number: 460-158511-1

Method	Analyst	Analyst ID
SW846 7471B	Staib, Thomas	TJS
EPA Moisture	Potts, Brandon J	BJP

SAMPLE SUMMARY

Client: PW Grosser Consulting

Job Number: 460-158511-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-158511-3	SS-015E(30"-36")	Solid	06/15/2018 1040	06/15/2018 2130
460-158511-4	SS-015E(36"-42")	Solid	06/15/2018 1045	06/15/2018 2130
460-158511-9	SS-019N(30"-36")	Solid	06/15/2018 1210	06/15/2018 2130
460-158511-10	SS-019N(36"-42")	Solid	06/15/2018 1215	06/15/2018 2130

SAMPLE RESULTS

Client: PW Grosser Consulting | Job Number: 460-158511-1

Client Sample ID: **SS-015E(30"-36")**

Lab Sample ID: 460-158511-3 | Date Sampled: 06/15/2018 1040
Client Matrix: Solid | % Moisture: 4.9 | Date Received: 06/15/2018 2130

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/02/2018 0808			Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.32	F1	0.0099	0.017

Client: PW Grosser Consulting

Job Number: 460-158511-1

Client Sample ID: **SS-015E(36"-42")**

Lab Sample ID: 460-158511-4
Client Matrix: Solid
% Moisture: 6.7

Date Sampled: 06/15/2018 1045
Date Received: 06/15/2018 2130

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	07/02/2018 0818			Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.53		0.0097	0.017

Client: PW Grosser Consulting | Job Number: 460-158511-1

Client Sample ID: **SS-019N(30"-36")**

Lab Sample ID: 460-158511-9 | Date Sampled: 06/15/2018 1210
Client Matrix: Solid | % Moisture: 10.8 | Date Received: 06/15/2018 2130

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	07/02/2018 0820			Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.69		0.011	0.019

Client: PW Grosser Consulting | Job Number: 460-158511-1

Client Sample ID: **SS-019N(36"-42")**

Lab Sample ID: 460-158511-10 | Date Sampled: 06/15/2018 1215
Client Matrix: Solid | % Moisture: 9.1 | Date Received: 06/15/2018 2130

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Prep Method:	7471B	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	07/02/2018 0822			Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.30		0.010	0.018

General Chemistry

Client Sample ID: **SS-015E(30"-36")**

Lab Sample ID: 460-158511-3 Date Sampled: 06/15/2018 1040
Client Matrix: Solid Date Received: 06/15/2018 2130

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N
Percent Solids	95.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-015E(36"-42")**

Lab Sample ID: 460-158511-4 Date Sampled: 06/15/2018 1045
Client Matrix: Solid Date Received: 06/15/2018 2130

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.7		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N
Percent Solids	93.3		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019N(30"-36")**

Lab Sample ID: 460-158511-9 Date Sampled: 06/15/2018 1210
Client Matrix: Solid Date Received: 06/15/2018 2130

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.8		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N
Percent Solids	89.2		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-019N(36"-42")**

Lab Sample ID: 460-158511-10 Date Sampled: 06/15/2018 1215
Client Matrix: Solid Date Received: 06/15/2018 2130

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.1		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N
Percent Solids	90.9		%	1.0	1.0	1.0	Moisture
Analysis Batch: 460-531802	Analysis Date: 06/28/2018 1024						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: PW Grosser Consulting Job Number: 460-158511-1

Lab Section	Qualifier	Description
Metals		
	U	Indicates the analyte was analyzed for but not detected.
	F1	MS and/or MSD Recovery is outside acceptance limits.

QUALITY CONTROL RESULTS

Client: PW Grosser Consulting Job Number: 460-158511-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-532716					
LCSSRM 460-532716/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-532716/10-A	Method Blank	T	Solid	7471B	
460-158511-3	SS-015E(30"-36")	T	Solid	7471B	
460-158511-3DU	Duplicate	T	Solid	7471B	
460-158511-3MS	Matrix Spike	T	Solid	7471B	
460-158511-4	SS-015E(36"-42")	T	Solid	7471B	
460-158511-9	SS-019N(30"-36")	T	Solid	7471B	
460-158511-10	SS-019N(36"-42")	T	Solid	7471B	
Analysis Batch:460-532867					
LCSSRM 460-532716/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	460-532716
MB 460-532716/10-A	Method Blank	T	Solid	7471B	460-532716
460-158511-3	SS-015E(30"-36")	T	Solid	7471B	460-532716
460-158511-3DU	Duplicate	T	Solid	7471B	460-532716
460-158511-3MS	Matrix Spike	T	Solid	7471B	460-532716
460-158511-4	SS-015E(36"-42")	T	Solid	7471B	460-532716
460-158511-9	SS-019N(30"-36")	T	Solid	7471B	460-532716
460-158511-10	SS-019N(36"-42")	T	Solid	7471B	460-532716

Report Basis
T = Total

General Chemistry

Analysis Batch:460-531802					
460-158511-3	SS-015E(30"-36")	T	Solid	Moisture	
460-158511-4	SS-015E(36"-42")	T	Solid	Moisture	
460-158511-9	SS-019N(30"-36")	T	Solid	Moisture	
460-158511-10	SS-019N(36"-42")	T	Solid	Moisture	
460-158603-A-4 DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: PW Grosser Consulting Job Number: 460-158511-1

Method Blank - Batch: 460-532716

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-532716/10-A	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	07/02/2018 0804	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.010	0.017

LCS-Certified Reference Material - Batch: 460-532716

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-532716/11-	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	07/02/2018 0806	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	11.8	14.42	122.2	70.3 - 129.7	

Matrix Spike - Batch: 460-532716

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158511-3	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	07/02/2018 0813	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.32	0.0822	0.681	440	75 - 125	F1

Client: PW Grosser Consulting

Job Number: 460-158511-1

Duplicate - Batch: 460-532716

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-158511-3	Analysis Batch:	460-532867	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-532716	Lab File ID:	532716HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	07/02/2018 0810	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/02/2018 0416				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.32	0.316	1	20	

Client: PW Grosser Consulting

Job Number: 460-158511-1

Duplicate - Batch: 460-531802

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-158603-A-4 DU	Analysis Batch:	460-531802	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/28/2018 1024	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	7.8	8.3	7	20	
Percent Solids	92.2	91.7	0.6	20	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

NYSC 460501

CHAIN OF CUSTODY / ANALYSIS REQUEST

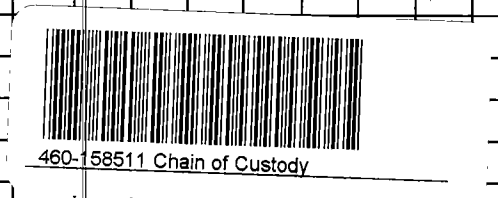
777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) Nick Iannucci	Site/Project Identification RSL 1801
Company PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
Address 630 Johnson Ave. Ste 7	Analysis Turnaround Time: Standard ☐	Regulatory Program:
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐ HOLD	LAB USE ONLY Project No:
Phone (631)589-6353 Fax		Job No: 158511

ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of. Cont.	Mercury	Sample Numbers
SS-015N (30"-36")	6/15/18	1015	S	1	X	1
SS-015N (36"-42")	↓	1020	↓	1	X	2
SS-015E (30"-36")	↓	1040	↓	1	X	3
SS-015E (36"-42")	↓	1045	↓	1	X	4
SS-015S (30"-36")	↓	1105	↓	1	X	5
SS-015S (36"-42")	↓	1110	↓	1	X	6
SS-015W (30"-36")	↓	1130	↓	1	X	7
SS-015W (36"-42")	↓	1135	↓	1	X	8
SS-019N (30"-36")	↓	1210	↓	1	X	9
SS-019N (36"-42")	↓	1215	↓	1	X	10

460-158511 Chain of Custody



Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____

Soil:

Water:

Special Instructions HOLD ALL SAMPLES THIS CHAIN

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
[signature]	PWGC	6/15/18 1533	1) [signature]	[signature]
2) [signature]	[signature]	6/15/18 1735	2) [signature]	[signature]
3) [signature]	[signature]	6/15/18 21:30	3) [signature]	TA 01
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132), Massachusetts (M-NJ312), North Carolina (No. 578)

2.5 / 2.5 TRAK NOCS

TAL - 0016 (0814)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NYSC
460501

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Lewis	Samplers Name (Printed) Nick Iannucci	Site/Project Identification RSL 1801
Company PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program:
Address 630 Johnson Ave Ste 7	Analysis Turnaround Time: Standard ☐	
City Bohemia State NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐ HOLD	
Phone (631)589-6353 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury										LAB USE ONLY Sample Numbers
SS-019E (30"-36")	6/15/18	1250	S	1	X										11
SS-019E (36"-42")		1255		1	X										12
SS-019S (30"-36")		1315		1	X										13
SS-019S (36"-42")		1320		1	X										14
SS-019W (30"-36")		1340		1	X										15
SS-019W (36"-42")		1345		1	X										16
SS-026N (30"-36")		800		1	X										17
SS-026N (36"-42")		805		1	X										18
SS-026E (30"-36")		830		1	X										19
SS-026E (36"-42")	↓	835	↓	1	X										20

LAB USE ONLY Project No:

Job No: 158511

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:

6 = Other _____, 7 = Other _____ Water:

Special Instructions HOLD THESE SAMPLES

Water Metals Filtered (Yes/No)? _____

	Relinquished by	Company	Date / Time	Received by	Company
1)		PWGC	6/15/18 1533		TA
2)		TA	6/15/18 1717		
3)			6/16/18 1230		TA
4)					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NYSC
460501

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Jennifer Lewis	Samplers Name (Printed): Nick Iannucci	Site/Project Identification: RSL1801
Company: PW Grosser Consulting	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
Address: 630 Johnson Ave. Ste 7	Analysis Turnaround Time: Standard ☐	Regulatory Program:
City: Bohemia State: NY	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐ HOLD	LAB USE ONLY Project No:
Phone: (631)589-6353 Fax:		Job No: 158511

Sample Identification	Date	Time	Matrix	No. of Cont.	Mercury	Sample Numbers
SS-026S(30"-36")	6/15/18	855	S	1	X	21
SS-026S(36"-42")	↓	900	↓	1	X	22
SS-026W(30"-36")		925		1	X	23
SS-026W(36"-42")	↓	930	↓	1	X	24

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:
6 = Other _____, 7 = Other _____ Water:

Special Instructions HOLD THESE SAMPLES

Water Metals Filtered (Yes/No)? _____

	Relinquished by	Company	Date / Time	Received by	Company
1)		PWGC	6/15/18 1533		TA
2)			6/15/18 1733		
3)			6/18/18 1210		TAL
4)					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0814)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: _____

Number of Coolers: 1 IR Gun # 16

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.5 °C	2.5 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 6/18/18

Login Sample Receipt Checklist

Client: PW Grosser Consulting

Job Number: 460-158511-1

Login Number: 158511
List Number: 1
Creator: Jara, Kelly D

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

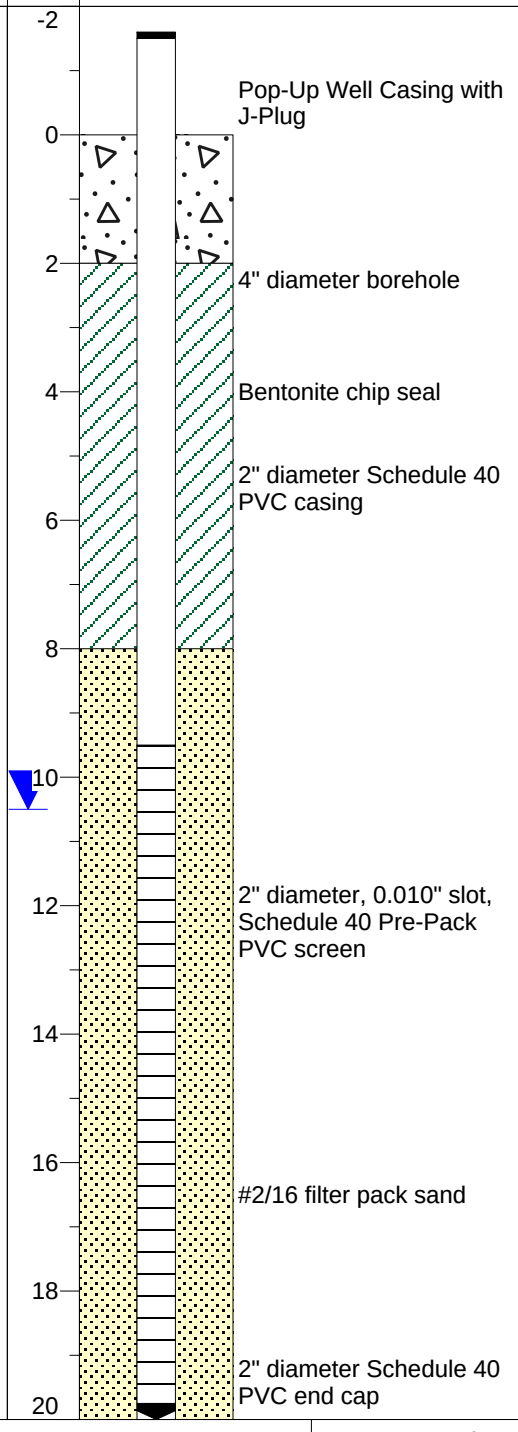
APPENDIX C
MONITORING WELL CONSTRUCTION LOGS

PROJECT #:	RSL1801
SITE ADDRESS:	458 Lakeland Ave, Sayville, NY
BORING ID:	MW-001
WELL ID:	MW-001
DRILLING CONTRACTOR:	Coastal Environmental Solutions, Inc.
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 6610
SAMPLING METHOD:	Macrocore

PWGC
Strategic Environmental Engineering Solutions

BORING DEPTH (FT): 20	CORE LENGTH (FT): N/A
BORING DIAMETER (IN): 4	WELL DIAMETER (IN): 2
DATE STARTED: 05/18/2018	DATE FINISHED: 05/18/2018
TIME STARTED: 13:30	TIME FINISHED: 14:10
LATITUDE: N/A	LONGITUDE: N/A
PROJECT MANAGER: Jennifer Lewis	LOGGED BY: Nick Iannucci

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
-2 to 20					



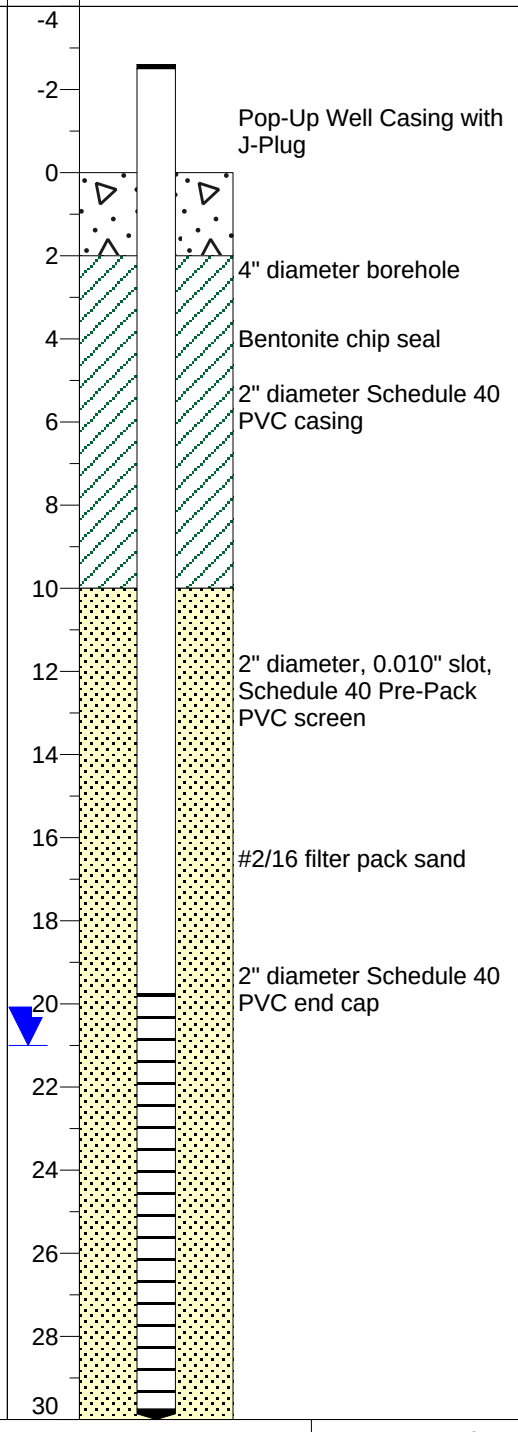
P.W. Grosser Consulting | **End of Boring Depth (feet):** 20 | **Water Table Symbol:** ▼ | Page 1 of 1

PROJECT #:	RSL1801
SITE ADDRESS:	458 Lakeland Ave, Sayville, NY
BORING ID:	MW-002
WELL ID:	MW-002
DRILLING CONTRACTOR:	Coastal Environmental Solutions, Inc.
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 6610
SAMPLING METHOD:	Macrocore

PWGC
Strategic Environmental Engineering Solutions

BORING DEPTH (FT): 30	CORE LENGTH (FT): N/A
BORING DIAMETER (IN): 4	WELL DIAMETER (IN): 2
DATE STARTED: 05/18/2018	DATE FINISHED: 05/18/2018
TIME STARTED: 12:20	TIME FINISHED: 13:20
LATITUDE: N/A	LONGITUDE: N/A
PROJECT MANAGER: Jennifer Lewis	LOGGED BY: Nick Iannucci

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)

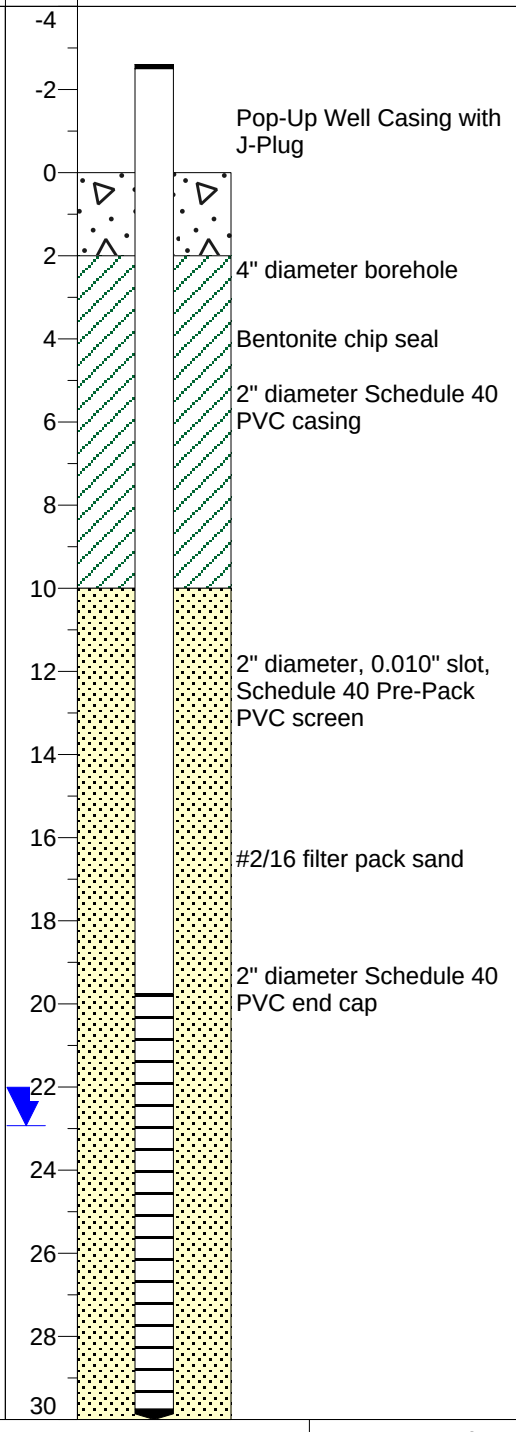


PROJECT #:	RSL1801
SITE ADDRESS:	458 Lakeland Ave, Sayville, NY
BORING ID:	MW-003
WELL ID:	MW-003
DRILLING CONTRACTOR:	Coastal Environmental Solutions, Inc.
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 6610
SAMPLING METHOD:	Macrocore

PWGC
Strategic Environmental Engineering Solutions

BORING DEPTH (FT): 30	CORE LENGTH (FT): N/A
BORING DIAMETER (IN): 4	WELL DIAMETER (IN): 2
DATE STARTED: 05/18/2018	DATE FINISHED: 05/18/2018
TIME STARTED: 11:00	TIME FINISHED: 12:10
LATITUDE: N/A	LONGITUDE: N/A
PROJECT MANAGER: Jennifer Lewis	LOGGED BY: Nick Iannucci

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)

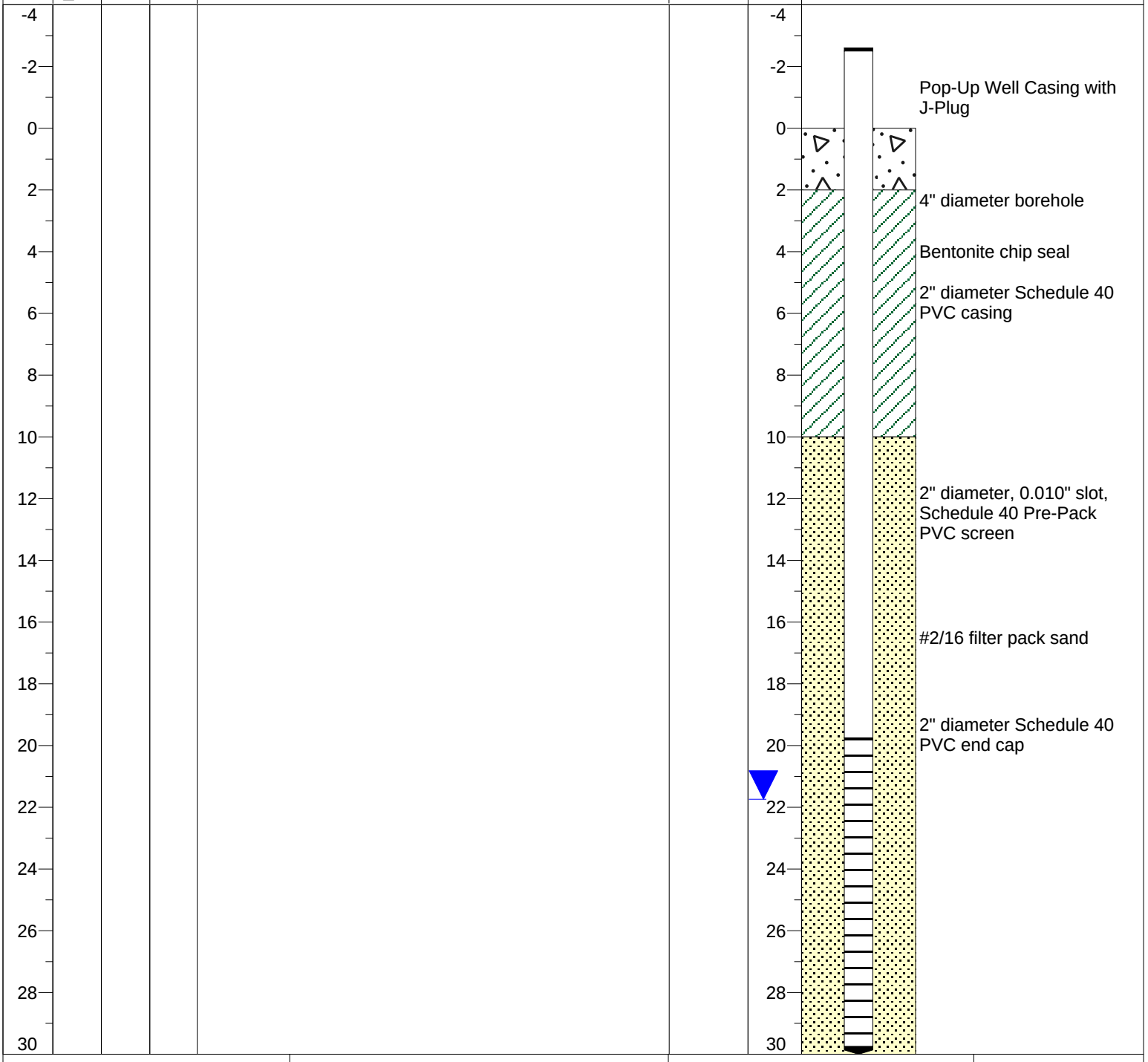


PROJECT #:	RSL1801
SITE ADDRESS:	458 Lakeland Ave, Sayville, NY
BORING ID:	MW-004
WELL ID:	MW-004
DRILLING CONTRACTOR:	Coastal Environmental Solutions, Inc.
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 6610
SAMPLING METHOD:	Macrocore

PWGC
Strategic Environmental Engineering Solutions

BORING DEPTH (FT): 30	CORE LENGTH (FT): N/A
BORING DIAMETER (IN): 4	WELL DIAMETER (IN): 2
DATE STARTED: 05/18/2018	DATE FINISHED: 05/18/2018
TIME STARTED: 09:30	TIME FINISHED: 10:25
LATITUDE: N/A	LONGITUDE: N/A
PROJECT MANAGER: Jennifer Lewis	LOGGED BY: Nick Iannucci

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)



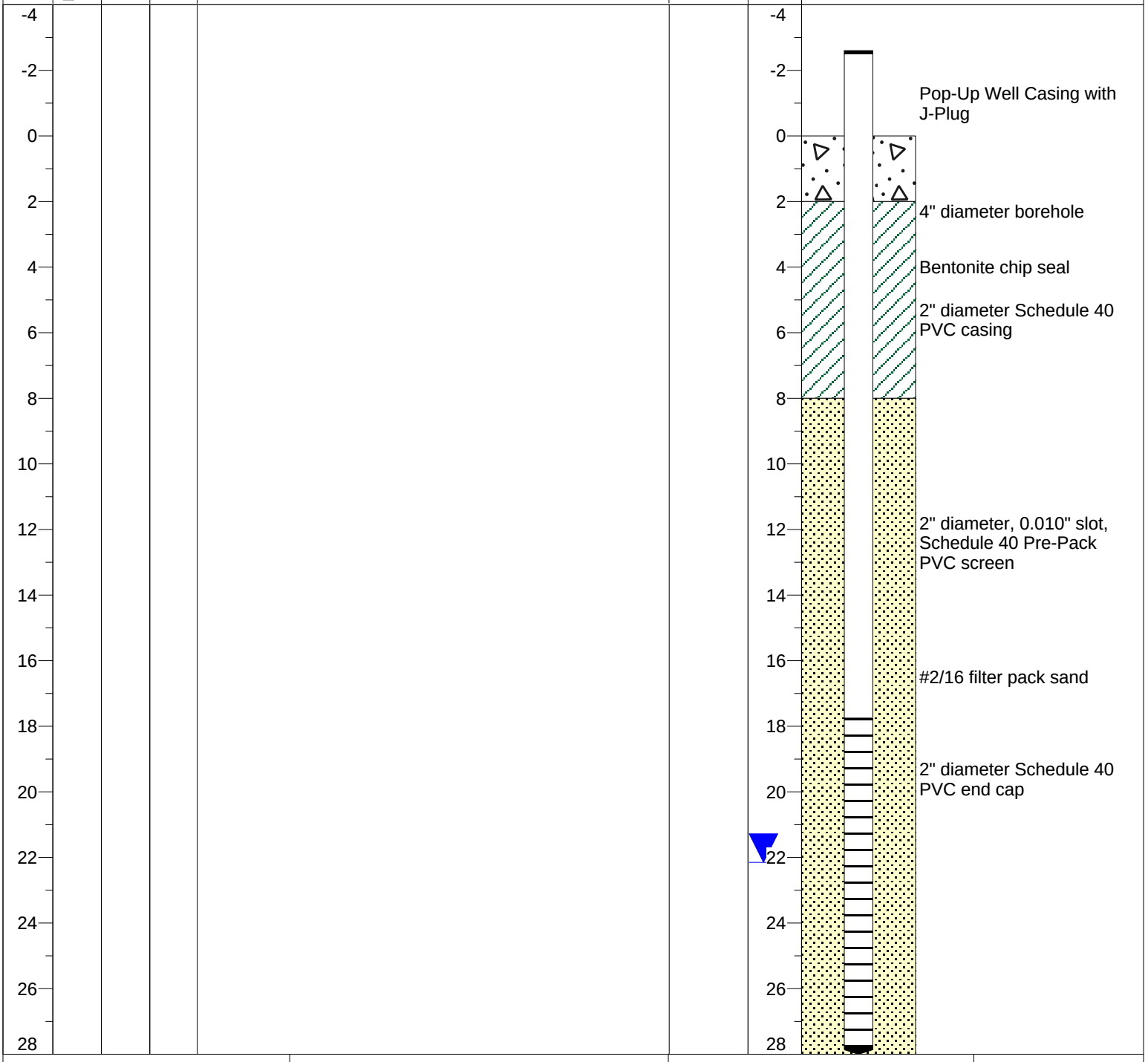
P.W. Grosser Consulting | **End of Boring Depth (feet):** 30 | **Water Table Symbol:** ▼ |

PROJECT #:	RSL1801
SITE ADDRESS:	458 Lakeland Ave, Sayville, NY
BORING ID:	MW-005
WELL ID:	MW-005
DRILLING CONTRACTOR:	Coastal Environmental Solutions, Inc.
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 6610
SAMPLING METHOD:	Macrocore

PWGC
Strategic Environmental Engineering Solutions

BORING DEPTH (FT): 28	CORE LENGTH (FT): N/A
BORING DIAMETER (IN): 4	WELL DIAMETER (IN): 2
DATE STARTED: 05/17/2018	DATE FINISHED: 05/17/2018
TIME STARTED: 12:10	TIME FINISHED: 13:30
LATITUDE: N/A	LONGITUDE: N/A
PROJECT MANAGER: Jennifer Lewis	LOGGED BY: Nick Iannucci

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)



WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

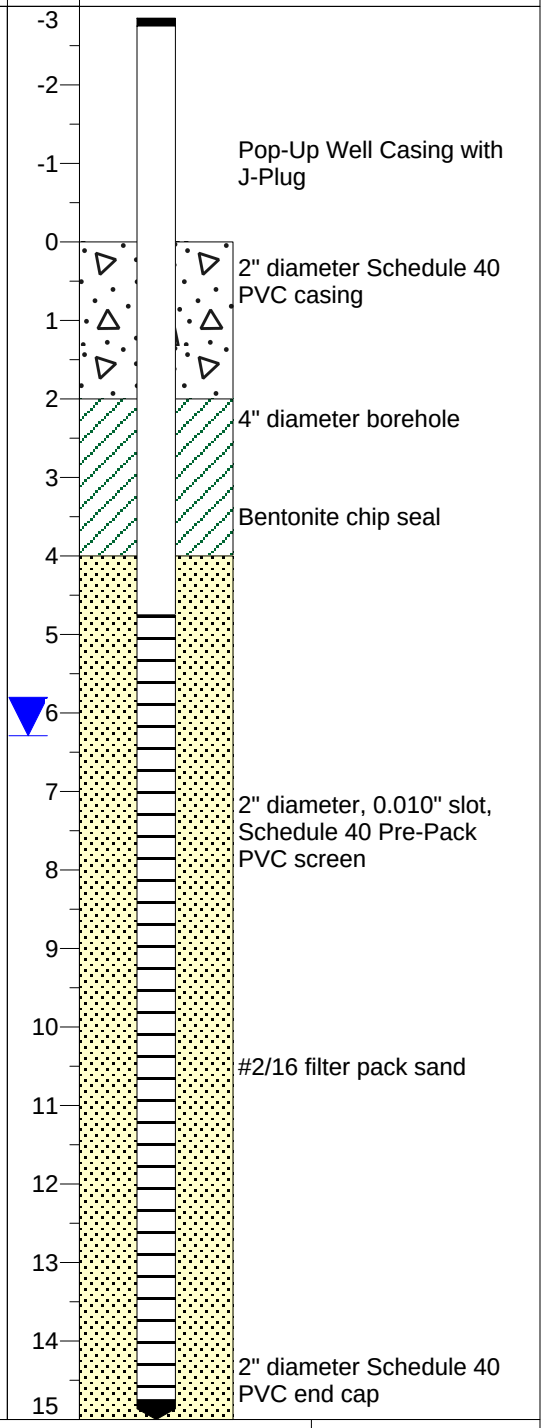
P.W. Grosser Consulting | **End of Boring Depth (feet):** 28 | **Water Table Symbol:** ▼ | Page 1 of 1

PROJECT #:	RSL1801
SITE ADDRESS:	458 Lakeland Ave, Sayville, NY
BORING ID:	MW-006
WELL ID:	MW-006
DRILLING CONTRACTOR:	Coastal Environmental Solutions, Inc.
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 6610
SAMPLING METHOD:	Macrocore

PWGC
Strategic Environmental Engineering Solutions

BORING DEPTH (FT): 15	CORE LENGTH (FT): N/A
BORING DIAMETER (IN): 4	WELL DIAMETER (IN): 2
DATE STARTED: 05/17/2018	DATE FINISHED: 05/17/2018
TIME STARTED: 14:30	TIME FINISHED: 15:00
LATITUDE: N/A	LONGITUDE: N/A
PROJECT MANAGER: Jennifer Lewis	LOGGED BY: Nick Iannucci

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)
-3 to 15					



APPENDIX D
MONITORING WELL SAMPLING LOG

P.W. GROSSER CONSULTING

Well Sampling Log

Well Designation:	MW-001	**Sampled By:**	NI
Site Address:	458 Lakeland Ave, Sayville, NY	**Project Manager:**	JLL
Project Name:	Former Island Hills Golf Course	**Project Number:**	RSL1801

Relative TOC Elevation (ft):	Not Measured	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	No Product	**Product Elevation (ft):**	NA
Depth to Water (ft):	11.11	**Groundwater Elevation (ft):**	Not Measured
Depth to Bottom (ft):	20.33	**Bottom Elevation (ft):**	Not Measured
Height of Water Column (ft):	9.22	**Well Diameter (in):**	2
Sample Date:	5/23/2018	**Begin Purge Time:**	10:00
Sample Time:	10:05	**Complete Purge Time:**	10:05
Sample Appearance:	Clear	**Purge Time (min):**	0:05
Odors Observed:	None	**Total Volume Purged (gal):**	20
Analytical Laboratory:	Test America	**Notes:**	
Date Shipped:	5/23/2018		
Analyses Requested:			
VOCs, SVOCs, Metals (total and dissolved), Pesticides, Herbicides, Nitrogen Series			

Field Indicator Parameters

Time	Temp. (ºC)	pH	Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)			
10:00	13.18	8.86	0.104	105	13.51	max			
10:01	11.23	6.66	0.123	105	5.78	260.00			
10:02	11.21	6.06	0.125	137	4.93	64.20			
10:03	11.21	5.70	0.125	157	4.37	30.50			
10:04	11.20	5.62	0.125	163	4.17	23.70			
10:05	11.20	5.54	0.125	170	3.98	15.60			

P.W. GROSSER CONSULTING

Well Sampling Log

Well Designation:	MW-002	**Sampled By:**	NI
Site Address:	458 Lakeland Ave, Sayville, NY	**Project Manager:**	JLL
Project Name:	Former Island Hills Golf Course	**Project Number:**	RSL1801

Relative TOC Elevation (ft):	Not Measured	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	No Product	**Product Elevation (ft):**	NA
Depth to Water (ft):	23.60	**Groundwater Elevation (ft):**	Not Measured
Depth to Bottom (ft):	31.40	**Bottom Elevation (ft):**	Not Measured
Height of Water Column (ft):	7.80	**Well Diameter (in):**	2
Sample Date:	5/23/2018	**Begin Purge Time:**	11:00
Sample Time:	11:20	**Complete Purge Time:**	11:20
Sample Appearance:	Clear	**Purge Time (min):**	0:20
Odors Observed:	None	**Total Purge Volumne (gal):**	10
Analytical Laboratory:	Test America	**Notes:**	
Date Shipped:	5/23/2018		
Analyses Requested:			
VOCs, SVOCs, Metals (total and dissolved), Pesticides, Herbicides, Nitrogen Series			

Field Indicator Parameters

Time	Temp. (ºC)	pH	Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)			
11:00	14.32	6.53	0.156	141	10.05	max			
11:05	12.54	6.24	0.157	186	9.49	57.00			
11:10	12.43	6.23	0.156	198	9.14	10.20			
11:15	12.38	6.19	0.156	208	9.91	1.90			
11:20	12.35	6.22	0.156	212	9.97	0.00			

P.W. GROSSER CONSULTING

Well Sampling Log

Well Designation:	MW-003	**Sampled By:**	NI
Site Address:	458 Lakeland Ave, Sayville, NY	**Project Manager:**	JLL
Project Name:	Former Island Hills Golf Course	**Project Number:**	RSL1801

Relative TOC Elevation (ft):	Not Measured	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	No Product	**Product Elevation (ft):**	NA
Depth to Water (ft):	25.43	**Groundwater Elevation (ft):**	Not Measured
Depth to Bottom (ft):	31.40	**Bottom Elevation (ft):**	Not Measured
Height of Water Column (ft):	5.97	**Well Diameter (in):**	2
Sample Date:	5/23/2018	**Begin Purge Time:**	12:10
Sample Time:	12:30	**Complete Purge Time:**	12:30
Sample Appearance:	Clear	**Purge Time (min):**	0:20
Odors Observed:	None	**Total Purge Volumne (gal):**	10
Analytical Laboratory:	Test America	**Notes:**	
Date Shipped:	5/23/2018		
Analyses Requested:			
VOCs, SVOCs, Metals (total and dissolved), Pesticides, Herbicides, Nitrogen Series			

Field Indicator Parameters

Time	Temp. (ºC)	pH	Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)			
12:10	13.61	6.45	0.136	185	11.90	575.00			
12:15	12.58	5.99	0.119	204	10.40	26.40			
12:20	12.50	5.96	0.118	216	10.11	3.00			
12:25	12.53	5.92	0.118	222	10.02	0.40			
12:30	12.47	5.96	0.117	224	10.01	0.00			

P.W. GROSSER CONSULTING

Well Sampling Log

Well Designation:	MW-004	**Sampled By:**	NI
Site Address:	458 Lakeland Ave, Sayville, NY	**Project Manager:**	JLL
Project Name:	Former Island Hills Golf Course	**Project Number:**	RSL1801

Relative TOC Elevation (ft):	Not Measured	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	No Product	**Product Elevation (ft):**	NA
Depth to Water (ft):	24.24	**Groundwater Elevation (ft):**	Not Measured
Depth to Bottom (ft):	31.52	**Bottom Elevation (ft):**	Not Measured
Height of Water Column (ft):	7.28	**Well Diameter (in):**	2
Sample Date:	5/23/2018	**Begin Purge Time:**	13:00
Sample Time:	13:20	**Complete Purge Time:**	13:20
Sample Appearance:	Clear	**Purge Time (min):**	0:20
Odors Observed:	None	**Total Purge Volumne (gal):**	10
Analytical Laboratory:	Test America	**Notes:**	
Date Shipped:	5/23/2018		
Analyses Requested:			
VOCs, SVOCs, Metals (total and dissolved), Pesticides, Herbicides, Nitrogen Series			

Field Indicator Parameters

Time	Temp. (ºC)	pH	Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)			
13:00	14.41	5.85	0.135	225	12.07	max			
13:05	13.02	5.73	0.151	230	9.89	593.00			
13:10	12.71	5.68	0.152	241	9.69	24.70			
13:15	12.66	5.63	0.152	248	9.62	2.00			
13:20	12.63	5.62	0.151	251	9.60	1.20			

P.W. GROSSER CONSULTING

Well Sampling Log

Well Designation:	MW-005	**Sampled By:**	NI
Site Address:	458 Lakeland Ave, Sayville, NY	**Project Manager:**	JLL
Project Name:	Former Island Hills Golf Course	**Project Number:**	RSL1801

Relative TOC Elevation (ft):	Not Measured	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	No Product	**Product Elevation (ft):**	NA
Depth to Water (ft):	24.65	**Groundwater Elevation (ft):**	Not Measured
Depth to Bottom (ft):	30.33	**Bottom Elevation (ft):**	Not Measured
Height of Water Column (ft):	5.68	**Well Diameter (in):**	2
Sample Date:	5/23/2018	**Begin Purge Time:**	13:50
Sample Time:	14:10	**Complete Purge Time:**	14:10
Sample Appearance:	Clear	**Purge Time (min):**	0:20
Odors Observed:	None	**Total Purge Volumne (gal):**	10
Analytical Laboratory:	Test America	**Notes:**	
Date Shipped:	5/23/2018		
Analyses Requested:			
VOCs, SVOCs, Metals (total and dissolved), Pesticides, Herbicides, Nitrogen Series			

Field Indicator Parameters

Time	Temp. (ºC)	pH	Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)			
13:50	18.73	6.26	0.120	219	9.37	867.00			
13:55	13.54	6.31	0.135	200	11.55	150.00			
14:00	13.51	6.25	0.135	210	10.95	7.40			
14:05	13.49	6.23	0.135	215	10.85	0.70			
14:10	13.46	6.24	0.135	218	10.69	0.00			

P.W. GROSSER CONSULTING

Well Sampling Log

Well Designation:	MW-006	**Sampled By:**	NI
Site Address:	458 Lakeland Ave, Sayville, NY	**Project Manager:**	JLL
Project Name:	Former Island Hills Golf Course	**Project Number:**	RSL1801

Relative TOC Elevation (ft):	Not Measured	**Well Use:**	Monitoring/Observation
Depth to Product (ft):	No Product	**Product Elevation (ft):**	NA
Depth to Water (ft):	8.95	**Groundwater Elevation (ft):**	Not Measured
Depth to Bottom (ft):	17.60	**Bottom Elevation (ft):**	Not Measured
Height of Water Column (ft):	8.65	**Well Diameter (in):**	2
Sample Date:	5/23/2018	**Begin Purge Time:**	14:35
Sample Time:	14:55	**Complete Purge Time:**	14:55
Sample Appearance:	Clear	**Purge Time (min):**	0:20
Odors Observed:	None	**Total Purge Volumne (gal):**	10
Analytical Laboratory:	Test America	**Notes:**	
Date Shipped:	5/23/2018		
Analyses Requested:			
VOCs, SVOCs, Metals (total and dissolved), Pesticides, Herbicides, Nitrogen Series			

Field Indicator Parameters

Time	Temp. (ºC)	pH	Cond. (mS/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)			
14:35	15.16	6.40	0.413	185	12.06	max			
14:40	13.59	6.42	0.390	154	2.90	234.00			
14:45	13.52	6.39	0.375	152	2.78	20.40			
14:50	13.51	6.38	0.376	152	2.72	9.90			
14:55	13.50	6.38	0.375	152	2.75	2.70			

Appendix B-3
Soil and Materials Management Plan

PWGC

July 2018

FORMER ISLAND HILLS GOLF COURSE
458 LAKELAND AVENUE
SAYVILLE, NY
TAX MAP ID: DISTRICT 500, SECTION 280, BLOCK 1, LOTS 16, 15.1, 10, 4, 3, 2 AND SECTION 257, BLOCK 3, LOT 3

SOIL AND MATERIALS MANAGEMENT PLAN

PREPARED FOR:

385 IH, LLC
85 South Service Road
Plainview, NY 11803

PREPARED BY:

P.W. Grosser Consulting, Inc.
630 Johnson Avenue, Suite 7
Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

Jennifer Lewis, PG, Senior Project Manager JenniferL@pwgrosser.com
James P. Rhodes, PG, Chief Operating Officer JimR@pwgrosser.com

PWGC Project Number: RSL1801

JULY 2018

PWGC
Strategic Environmental Engineering Solutions

SOIL AND MATERIALS MANAGEMENT PLAN
FORMER ISLAND HILLS GOLF COURSE
458 LAKELAND AVENUE, SAYVILLE, NY

TABLE OF CONTENTS **PAGE**

1.0 INTRODUCTION 1
1.1 Site Description and History 1
1.2 Phase I ESA - 2018 1
1.3 Phase II ESA - 2018 2
1.3.1 Shallow Soils 3
1.3.2 Deep Soil Borings 6
1.3.3 Groundwater Quality 6
1.3.4 Phase II Conclusions and Recommendations 7
1.4 Proposed Development Plan 7
2.0 SOIL MANAGEMENT 8
2.1 Endpoint Sample Collection 10
2.2 Dust Control 10
2.3 Dust Control Plan/Monitoring 11
3.0 REPORTING 13

SOIL AND MATERIALS MANAGEMENT PLAN
FORMER ISLAND HILLS GOLF COURSE
458 LAKELAND AVENUE, SAYVILLE, NY

FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Sampling Locations
Figure 4A	Shallow Soil Sample Locations
Figure 4B	Shallow Soil Sample Exceedances – Greens and Tee Boxes
Figure 4C	Shallow Soil Sample Exceedances – Fairways
Figure 4D	Shallow Soil Sample Exceedances – Rough and Woods

TABLES

Table 1	Shallow Soil Sample Analytical Results – Greens (Metals, Pesticides, Herbicides)
Table 2	Shallow Soil Sample Analytical Results – Greens (VOCs)
Table 3	Shallow Soil Sample Analytical Results – Greens (SVOCs)
Table 4	Shallow Soil Sample Analytical Results – Greens (PCBs)
Table 5	Shallow Soil Sample Analytical Results – Tee Boxes (Metals, Pesticides, Herbicides)
Table 6	Shallow Soil Sample Analytical Results – Tee Boxes (VOCs)
Table 7	Shallow Soil Sample Analytical Results – Tee Boxes (SVOCs)
Table 8	Shallow Soil Sample Analytical Results – Tee Boxes (PCBs)
Table 9	Shallow Soil Sample Analytical Results – Fairways (Metals, Pesticides, Herbicides)
Table 10	Shallow Soil Sample Analytical Results – Fairways (VOCs)
Table 11	Shallow Soil Sample Analytical Results – Fairways (SVOCs)
Table 12	Shallow Soil Sample Analytical Results – Fairways (PCBs)
Table 13	Shallow Soil Sample Analytical Results – Driving Range (Metals, Pesticides, Herbicides)
Table 14	Shallow Soil Sample Analytical Results – Rough (Metals, Pesticides, Herbicides)
Table 15	Shallow Soil Sample Analytical Results – Woods (Metals, Pesticides, Herbicides)
Table 16	Shallow Soil Sample Analytical Results – Woods (VOCs)
Table 17	Shallow Soil Sample Analytical Results – Woods (SVOCs)
Table 18	Shallow Soil Sample Analytical Results – Woods (PCBs)
Table 19	Deep Soil Sample Analytical Results – (Metals, Pesticides, Herbicides)
Table 20	Deep Soil Sample Analytical Results – (VOCs)
Table 21	Deep Soil Sample Analytical Results – (SVOCs)
Table 22	Deep Soil Sample Analytical Results – (PCBs)
Table 23	Groundwater Field Data Summary
Table 24	Groundwater Analytical Data Summary – (VOCs)
Table 25	Groundwater Analytical Data Summary – (SVOCs)
Table 26	Groundwater Analytical Data Summary – Metals (Total and Dissolved)
Table 27	Groundwater Analytical Data Summary – (Pesticides, Herbicides, Nitrogen Series)

APPENDICES

Appendix A	Phase I ESA
Appendix B	Phase II ESA
Appendix C	Conceptual Redevelopment Site Plan
Appendix D	Daily Air Monitoring Form

ACRONYM	DEFINITION
ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulations
DER	Department of Environmental Remediation
ELAP	Environmental Laboratory Approval Program
EM	Electromagnetic
ESA	Environmental Site Assessment
GQS	Groundwater Quality Standard
GV	Guidance Value
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyl
PID	Photo-ionization Detector
PWGC	P.W. Grosser Consulting, Inc.
QA/QC	Quality Assurance / Quality Control
REC	Recognized Environmental Condition
SCO	Soil Cleanup Objective
SVOC	Semi-volatile Organic Compound
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

1.0 INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC) has prepared this Soil and Material Management Plan (SMMP) on behalf of 385 IH, LLC. (Client) for the property located at 458 Lakeland Avenue in Sayville, New York, known as the former Island Hills Golf Club. This SMMP has been prepared to support the proposed redevelopment of the property and details the best management practices to be employed during construction for the handling of impacted soils. Historic environmental site assessments (ESAs) revealed the presence of elevated concentrations of several metals, particularly mercury, and pesticides related to the site's long-term usage as a golf course. This document is to be implemented and managed by the property developer in conjunction with an environmental consultant.

1.1 Site Description and History

The subject property consists of seven parcels located at 458 Lakeland Avenue in Sayville, New York. The site is in Suffolk County. The property is identified in the Suffolk County Tax Map as District 500, Section 280, Block 1, Lots 16, 15.1, 10, 4, 3, 2 and Section 257, Block 3, Lot 3. The subject property measures approximately 113 acres and there are several vacant buildings located on the property which are comprised of the following:

- Island Hills Golf Club club house (club house)
- The south maintenance building (SMB)
- The central maintenance building (CMB)
- A pro-shop / golf cart storage building
- A pool house
- Two single family houses

A vicinity map is included as **Figure 1** and a Site Plan is included as **Figure 2**.

1.2 Phase I ESA - 2018

The site was first developed and operated as a golf course in 1927 until its closure in 2015. The site briefly halted operation as a golf course during World War II when the site was used for training paratroopers. Golf courses are known for utilizing pesticides and fungicides which may include metals and herbicides to treat the grass on the course. PWGC prepared a Phase I ESA in June 2018 which included summaries of several other historic ESAs. A copy of the Phase I ESA is included as **Appendix A**.

The following recognized environmental conditions (RECs) were noted:

- The site has a long history of being an active golf course. Chemicals such as pesticides, herbicides, and fertilizers have been used at the site; the majority of the chemical storage and mixing was conducted by

the SMB. Samples from previous site assessments reveal that the surface soils on the main golf course are impacted with metals and pesticides, predominantly mercury, chlordane, and heptachlor epoxide. Debris piles and mounds of soil were historically observed and sampled. During the recent site inspection, these piles and mounds were not identified; however, the presence of overgrown vegetation may have made inspection of these piles difficult. As the property no longer operates as a golf course and redevelopment of the property is contemplated, these conditions represent a REC.

- Three aboveground storage tanks (ASTs) were identified at the site: one 275 gallon AST located in the basement of each residential house and one 550 gallon AST located adjacent to the pro-shop and in direct contact with the soil. The ASTs were in varying conditions from good to fair and there was no evidence of leaks from the ASTs. The ASTs are still partially full of liquids and over time the ASTs, without proper maintenance, may fail. The presence of these ASTs represents a REC.
- Several of the onsite sanitary and stormwater systems were successfully remediated in 2007 and in 2015. The golf course ceased operations shortly after the 2015 remediation, so the structures remediated in 2015 are unlikely to be impacted; however, a significant amount of time has passed since the 2007 remediation occurred of the structures in the club house parking lot. Continued use after the remediation may have resulted in additional impact to that system; therefore, the presence of the sanitary and stormwater drains in the parking lot of the club house and the two stormwater drains on the course represent a REC.
- The subject property is identified as a NYSPILLS site. Spill number 05-11071 was opened on December 12, 2005, due to a bad check valve observed during a tank test. No contamination was found, the check valve was replaced, and the tank passed a new test. The New York State Department of Environmental Conservation (NYSDEC) closed spill number 05-11071 on March 21, 2006; therefore, this represents a historic REC (HREC).

1.3 Phase II ESA - 2018

PWGC performed a Phase II ESA in May and June 2018 that included an investigation of shallow soils, deep soils, and the groundwater quality beneath the site. The shallow soils were divided into several components based upon their usage on the golf course – greens, tee boxes, fairways, driving range, rough, and woods. A total of 77 shallow soil borings, 5 deep soil borings, and 6 groundwater monitoring wells were installed. The Phase II ESA is summarized below, a copy of the full report is included as **Appendix B**. All sampling locations from the 2018 Phase II are illustrated on **Figure 3** and shallow soil samples are illustrated on **Figures 4A** through **4D**.

Soil analytical results were compared to the NYSDEC's Title 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and Final Commissioner Policy, CP-51 Soil Cleanup Objectives (SCOs) for Unrestricted Use (UUSCOs), Protection of Groundwater (PGSCOs), and Restricted Residential (RRSCOs). Restricted Residential is defined in Part 375 as the land use category where there is common ownership or a single owner/managing entity of the site. As per Part 375, the RRSCO and PGSCOs for mercury are the lower values of elemental mercury or inorganic mercury. Elemental mercury is unlikely to have been used at the site as, according to the USEPA, elemental mercury is typically found in mercury, silver, or gold mines, novelty jewelry, dental fillings, some cosmetics, and instruments and equipment such as old thermometers and switches. The RRSCO (5.8 mg/kg) and PGSCO (not established) from the NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document (Tables 5.6-1 and 7-2) for inorganic mercury were used for comparison purposes.

Groundwater analytical results were compared to NYSDEC groundwater quality standards (GQS) / guidance values (GVs) specified in 6 NYCRR Part 703.

1.3.1 Shallow Soils

To characterize shallow soil quality, soil borings were installed throughout the golf course portion of the subject property between May 17, 2018 and June 15, 2018. Shallow soil sample results are included as **Tables 1** through **18**.

Mercury was detected in each of the 60 samples collected from the greens with 56 samples exceeding the mercury UUSCO of 0.18 mg/kg and 22 samples exceeding the RRSCO of 5.8 mg/kg. The maximum mercury concentration was 44.4 mg/kg in a sample from 0 to 3 inches. Each of the RRSCO exceedances occurred in the 0 to 3 inch or 18 to 24 inch samples; the samples collected from 30 to 36 inches and 36 to 42 inches were less than the RRSCO for mercury. Other metals detected in the greens included cadmium, chromium, lead, and arsenic, each at concentrations less than RRSCOs in the deepest samples in the borings. Four pesticides were detected at concentrations exceeding SCOs in the greens: beta-BHC, chlordane, and heptachlor epoxide. Beta-BHC exceedances were detected in two samples, both from the 0 to 3 inch interval, with a maximum concentration of 0.15 mg/kg, exceeding the PGSCO of 0.09 mg/kg. Heptachlor epoxide exceedances were detected in twelve samples, typically in the 0 to 3 inch and 18 to 24 inch intervals in the same boring, with a maximum concentration of 0.98 mg/kg, exceeding the PGSCO of 0.02 mg/kg. Chlordane exceedances were detected in eighteen samples, each exceeding the RRSCO of 4.2 mg/kg in the 0 to 3 inch interval and decreasing to levels that exceeded the UUSCO of 0.094 mg/kg in the 18 to 24 inch interval, but were less than the RRSCO.

The maximum chlordane concentration detected was 36 mg/kg. The samples that were analyzed for herbicides, VOCs, SVOCs, and PCBs were non-detect or concentrations were less than UUSCOs, PGSCOs, or RRSCOs.

Mercury was detected in each of the 33 samples collected from the tee boxes with 29 samples exceeding the mercury UUSCO of 0.18 mg/kg and 6 samples exceeding the RRSCO of 5.8 mg/kg. The maximum mercury contamination was 17.9 mg/kg in a sample from 18 to 24 inches. Each of the RRSCO exceedances occurred in the 0 to 3 inch or 18 to 24 inch samples; the samples collected from 30 to 36 inches and 36 to 42 inches were less than the RRSCO for mercury. In general, mercury concentrations observed in the tee boxes were similar in magnitude as to those observed in the greens, but concentrations greater than the RRSCO were less widespread. Mercury concentrations also generally decreased with depth as was observed in the samples from the greens. Other metals detected in the tee boxes included arsenic and chromium at concentrations less than RRSCOs in each of the deepest samples in the borings. Six pesticides were detected at concentrations exceeding UUSCOs and/or PGSCOs, there were no exceedances of RRSCOs. The compounds with exceedances included 4,4-DDE (maximum concentration of 0.13 mg/kg), 4,4-DDT (maximum concentration of 0.11 mg/kg), beta-BHC (maximum concentration of 0.3 mg/kg), chlordane (maximum concentration of 3.7 mg/kg), dieldrin (maximum concentration of 0.017 mg/kg), and heptachlor epoxide (maximum concentration of 0.12 mg/kg). Generally, the highest concentrations were detected in the 0 to 3 inch interval and concentrations decreased in the 18 to 24 inch interval. The samples that were analyzed for herbicides, VOCs, SVOCs, and PCBs were non-detect or concentrations were less than UUSCOs, PGSCOs, or RRSCOs.

Mercury was detected in each of the 28 samples collected from the fairways with 19 samples exceeding the mercury UUSCO of 0.18 mg/kg and 2 samples exceeding the RRSCO of 5.8 mg/kg. The maximum mercury concentration was 9.5 mg/kg. Each of the RRSCO exceedances occurred in the 0 to 3 inch samples; the samples collected from 18 to 24 inches were less than the UUSCO for mercury. In each boring, the mercury concentration decreased from the 0 to 3 inch interval to the 18 to 24 inch interval, except in one boring where both concentrations were less than the UUSCO. In general, mercury concentrations observed in the fairways were less than those observed in the greens and tee boxes which is consistent with the greens and tee boxes receiving the most chemical treatment on the golf course. Chromium was also detected in several borings in the shallowest sample, but did not exceed its RRSCO; the deeper sample did not exceed its UUSCO. Five pesticides were detected at concentrations exceeding UUSCOs and/or PGSCOs, there were no exceedances of RRSCOs. The compounds with exceedances included 4,4-DDE (maximum concentration of 0.015 mg/kg), 4,4-DDT (maximum concentration of 0.17 mg/kg), chlordane (maximum concentration of 3.1 mg/kg), dieldrin (maximum

concentration of 0.026 mg/kg), and heptachlor epoxide (maximum concentration of 0.34 mg/kg). Generally, the highest concentrations were detected in the 0 to 3 inch interval and concentrations decreased in the 18 to 24 inch interval. The samples that were analyzed for herbicides, VOCs, SVOCs, and PCBs were non-detect or concentrations were less than UUSCOs, PGSCOs, or RRSCOs.

Mercury was detected in both samples collected from the driving range; in the shallow sample from 0 to 3 inches with a concentration of 0.86 mg/kg exceeding the UUSCO and in the deeper sample from 18 to 24 inches with a concentration of 0.073 mg/kg less than the UUSCO. The mercury concentrations observed in the driving range were similar to or less than the majority of the samples collected from the fairways. Based upon the usage of the driving range, it likely received similar or less chemical treatment as the fairways. The remaining metals were less than UUSCOs, PGSCOs, and RRSCOs. Pesticides and herbicides were non-detect. Samples were not collected for VOCs, SVOCs, or PCBs in the driving range.

Mercury was detected in each of the 12 samples from the rough with 3 samples exceeding the mercury UUSCO of 0.18 mg/kg and no samples exceeding the RRSCO of 5.8 mg/kg. The maximum mercury concentration was 3.0 mg/kg in a sample collected in the 0 to 3 inch interval; the sample collected from 18 to 24 inches in the same boring decreased to 0.25 mg/kg. The remaining metals and herbicides were less than UUSCOs, PGSCOs, and RRSCOs. Three pesticides were detected at concentrations exceeding UUSCOs and/or PGSCOs, there were no exceedances of RRSCOs. The compounds with exceedances included 4,4-DDT (maximum estimated concentration of 0.0038 µg/kg), chlordane (maximum concentration of 1.7 µg/kg), and heptachlor epoxide (maximum concentration of 0.053 µg/kg). Samples were not collected for VOCs, SVOCs, or PCBs in the rough.

Mercury was detected in 18 of the 19 samples collected in the woods with 5 samples exceeding the mercury UUSCO of 0.18 mg/kg and no samples exceeding the RRSCO of 5.8 mg/kg. The maximum mercury concentration was 0.35 mg/kg. Each of the UUSCO exceedances occurred in the 0 to 3 inch samples; the samples collected from 18 to 24 inches were less than the UUSCO for mercury. The remaining metals, herbicides, VOCs, SVOCs, and PCBs were non-detect or concentrations were less than UUSCOs, PGSCOs, and RRSCOs. Four pesticides were detected at concentrations exceeding UUSCOs, there were no exceedances of PGSCOs or RRSCOs. The compounds with exceedances included 4,4-DDE (maximum concentration of 0.013 mg/kg), 4,4-DDT (maximum concentration of 0.059 mg/kg), chlordane (maximum concentration of 0.28 mg/kg), and dieldrin (maximum concentration of 0.0076 mg/kg). The quality of the soil along the perimeter of the property bordering the residential neighborhood revealed detections of mercury, 4,4-DDT, chlordane, and dieldrin at concentrations

exceeding their respective UUSCOs, but significantly less than PGSCOs and RRSCOs. The concentrations detected are typical of residentially developed areas.

1.3.2 Deep Soil Borings

The deep soil borings were conducted on May 17, 2018 in five separate fairways. Soils were collected continuously from ground surface until groundwater was encountered. The depth to groundwater varied across the site between approximately 8 feet and 23 feet based upon local topography. Analytical data is included on **Tables 19** through **22**.

Mercury was non-detect in 5 of the 6 samples. One sample, SB-004 in the 2 to 4 foot interval, had an estimated concentration of 0.013 mg/kg which is less than the UUSCO of 0.18 mg/kg for mercury. The remaining metals concentrations were also less than UUSCO. One sample, SB-005 from 2 to 4 feet, contained a concentration of acetone (0.059 mg/kg) greater than the UUSCO and PGSCO of 0.05 mg/kg. Acetone was detected in each of the six samples and is a common laboratory contaminant. As SB-005 is located in a fairway along the northern portion of the site, it is unlikely that a source of acetone impact is present; therefore, the elevated result is likely due to laboratory contamination. Herbicides, pesticides, SVOCs, and PCBs were non-detect in each of the samples.

Deep soils across the site, from 2 feet below grade to the groundwater table, are expected to meet UUSCOs with the exception of soils beneath the greens and tee boxes.

1.3.3 Groundwater Quality

To characterize groundwater quality, six monitoring wells were installed throughout the subject property and groundwater samples were collected. The monitoring wells were installed on May 17 and May 18, 2018. Groundwater field data and analytical data is included on **Tables 23** through **27**.

VOCs were non-detect for each groundwater sample collected, with the exception of acetone which was detected in each well. As previously discussed, acetone is a common laboratory contaminant and there is no known source of acetone at the subject property. SVOCs, pesticides, and herbicides were non-detect in each of the samples. Mercury was non-detect in each of the samples. Three metals were detected in groundwater samples at concentrations exceeding their respective GQS: iron, manganese, and sodium. These three metals are naturally occurring metals typically identified in groundwater samples on Long Island and are not associated with any known spills or sources of impact at the site and are unlikely to be the result of operations at the former

golf course. The nitogen series analytes (ammonia, total Kjeldahl nitrogen, nitrate , nitrite, and nitrate nitrite) were analyzed from each of the monitoring wells. There were no exceedances of GQS. The highest concentration of nitrate was observed in MW-006 which is located hydraulically up-gradient of the majority of the site and is also the shallowest well with groundwater encountered at approximately 9 feet below the top of the well casing (approximately 6 feet below grade).

1.3.4 Phase II Conclusions and Recommendations

Based on the results of the Phase II ESA, PWGC offered the following conclusions:

- The site's usage has resulted in impact to the shallow soils. Generally, the impact is focused on the greens and tee boxes, with less impact on the fairways and driving range. Little to no impact was observed in the roughs and woods and are generally similar to what would be observed in a residentially developed area. The shallowest soils exhibit the most impact which decreases with depth. The most prevalent contaminant observed, in terms of frequency and concentration, was mercury; other contaminants included chromium, arsenic, cadmium, lead, and several pesticides.
- Generally, soils at the site greater than 2 feet below grade met UUSCOs indicating that the contaminants did not migrate significantly downwards. Within the greens and tee boxes, exceedances of RRSCOs were observed up to a depth of approximately 2.5 feet deep.
- The groundwater quality at the site has not shown evidence of being impacted by the site's usage.

Based on the conclusions detailed above, PWGC recommended preparation of a SMMP that details the proper handling of on-site soils to be protective for on-site personnel and the surrounding community in the event of soil intrusive activities or if the property is redeveloped.

1.4 Proposed Development Plan

Redevelopment plans for the property are still being prepared; however, the redevelopment will likely consist of construction of a 1,365-unit residential community with amenities and public spaces. The community will include on-site stormwater and sewage treatment systems, public water supply, recreational amenities, interior open space and outdoor pool patio areas, an internal walking trail network, and public open space along the perimeter of the site. It is understood that the construction will likely be conducted in a multi-phased approach. A conceptualized site plan, subject to change, is included as **Appendix C**.

2.0 SOIL MANAGEMENT

Currently, the property is mostly composed of an overgrown golf course and several support buildings for the former operation of the golf course. Regional groundwater flow beneath the subject property is in a generally southerly direction as obtained from groundwater contour maps developed by the United States Geologic Survey for Long Island in 2013.

In order to properly protect the environment and public health from the metals and pesticides detected, soil management at the site will consist of the following:

- Non-disturbed areas of the property which are to remain naturally vegetated and do not exceed RRSCOs will not require soil management.
- Site development, such as roads, parking areas, sidewalks, concrete slabs, or other impervious layers will act as a physical barrier to prevent contact with soils in these areas. No other soil management procedures will be required in these areas.
- In areas not included above, soil management may consist of the following options:
    - **Clean Soil Cap** - Construction of a 1 foot thick soil cap, in accordance with NYSDEC Part 360.13, in areas where the current landscaping is disturbed. The soil cap will be sampled at the following frequency and as described in Section 2.1:

Fill Material Quantity (cubic yards)	Number of VOC Samples	Number of Non-VOC Samples
0 – 300	2	1
301 – 1,000	4	2
1,001 – 10,000	6	3
10,000 +	Two per every additional 10,000 cubic yards or fraction thereof	One per every additional 10,000 cubic yards or fraction thereof

Inline Table 1 - Table sourced from Part 360.13 – Minimum Analysis Frequency for Fill Material

Fill material will be sampled for metals, PCBs, pesticides, and SVOCs. VOC sampling of the fill material will not be required except in areas where their presence is possible, such as historic petroleum spill areas or if odors or elevated photoionization detector readings are detected. Asbestos sampling will not be required if the on-site structures are properly abated prior to demolition. Analytical results will be compared to the lower of Part 375 RRSCOs and PGSCOs to meet the General Fill requirements. The soil cap will be covered with a grass/sod or vegetation

layer to act as an additional barrier. To document the transition between the clean soil cap and deeper soils, a professional survey will be completed or a demarcation barrier, such as orange construction fencing, will be placed beneath the clean soil cap.

- **Vertical Mixing** - Vertical mixing is the widely-accepted process of remediating impacted surface soils by mechanically mixing them with cleaner soil found at greater depths. This method is based on the principle that the environmental and public health risk from these compounds is a function of the surface soil concentrations of these compounds to which a person is exposed; lowering concentrations of compounds lowers the risk to the person exposed to them. As soils generally deeper than 2 feet met UUSCOs, vertical mixing will reduce compound concentrations in the surface soil to concentrations less than RRSCOs and PGSCOs. Below this level, small amounts of these compounds are an acceptable environmental and public health risk, even in cases where exposure to the soil is continuous or over long periods. Vertical mixing will consist of thorough mixing of the top 1 foot of surface soils and may be performed by means of an excavator or by successive passes over the site with a scraper. The method used to perform the vertical mixing will be dependent upon the size of the work area.
- **On-Site Burial** – On-site burial of impacted soils in excavated areas, depending on contaminant concentrations and the depth to groundwater or proximity to surface water may be conducted. The PGSCOs and the mobility of contaminants will be considered to ensure a proper buffer zone between impacted soils and the groundwater table. Buried soils will require a 1 foot cap of clean soil and a grass/sod or vegetation layer to act as a barrier to impacted soils or an impervious layer such as roads, parking areas, sidewalks, or concrete slabs.
- **Landscape Berms** – Landscape berms may be constructed on the property in undeveloped open areas of the property, such as in buffer areas. The landscape berms will require a 1 foot cap of clean soil and a grass/sod or vegetation layer to act as a barrier to impacted soils.
- **Soil Removal** – Excess soil will be characterized for disposal purposes. Soil wastes will be transported to properly permitted off-site disposal facilities in accordance with NYSDEC Part 360. Other soils, if determined to have a beneficial use, will be transported to other appropriate sites in accordance with NYSDEC Part 360.

To prevent tracking of potentially impacted soil into areas where neither remediation nor other risk management measures are planned, the following precautions will be taken:

- Access to areas in which a clean soil cap has been constructed will be limited by temporary barricade fencing until landscaping activities have been completed.
- Vehicles and equipment will be cleaned or washed down prior to moving from impacted areas to areas in which soil mitigation is not necessary or has already been completed.
- Erosion controls (i.e. silt fencing or equivalent) will be installed to prevent runoff from impacted areas from entering areas in which soil mitigation is not necessary or has already been completed.

When possible, PWGC recommends minimizing excavation and disturbance of soils or re-use of deeper soils at the greens and tee boxes and placement of an impervious layer above these areas to reduce the need for soil management.

2.1 Endpoint Sample Collection

PWGC will collect endpoint soil samples after soil management measures are completed to determine whether surface soil concentrations of the trigger compounds are less than NYSDEC RRSCOs and PGSCOs which is the applicable maximum cleanup objectives for General Fill requirements. The number of samples collected will ultimately be determined based upon the areas disturbed and completed with a soil cap in accordance with the sampling frequency detailed in **Inline Table 1**. Samples may be collected from vertically mixed stockpiles or in-situ after placement of the 1 foot thick soil cap. In-situ soil sampling will be biased towards areas that were previously sampled and contained exceedances of RRSCOs unless those areas are capped with an impervious layer, such as roads, parking lots, sidewalks, or concrete slabs. Soil samples will be collected from zero to two feet below grade using a stainless steel hand auger and will be submitted to a New York State Department of Health (NYSDOH) certified laboratory for analysis. Samples will be analyzed for TAL metals by United States Environmental Protection Agency (USEPA) method 6010C/7471B and organochlorine pesticides by USEPA method 8081B. If analytical results indicate concentrations of metals or pesticides greater than NYSDEC RRSCOs or PGSCOs, there will be further soil mixing in that area until endpoint sample results are less than NYSDEC RRSCOs and PGSCOs

2.2 Dust Control

Dust from work activities could contain contaminants of concern. The on-site environmental technician will monitor dust levels and take immediate action when necessary. The environmental technician will implement the dust control plan (Section 2.3) if there is any actual or potential visible dust. Dust suppression measures will be employed in accordance with the NYSDEC DER-10 Appendix 1B for Fugitive Dust and Particulate Monitoring. The primary sources of dust will be equipment, vehicular traffic, and construction activities on exposed soils.

2.3 Dust Control Plan/Monitoring

Dust monitoring will be conducted during intrusive activities in areas of concern, specifically during removal of the vegetative layer and excavating in the greens, tee boxes, and fairways, where contaminants were identified that exceeded RRSCOs. If there is dust or the potential for dust in areas of concern, the environmental technician will direct that the area be wet down. Calcium chloride may be used if the problem cannot be controlled with water. Dust control measures may include the following methods and, as good practice, can also be implemented at times when dust monitoring is not being conducted to prevent the migration of non-impacted dust off-site, as well as potentially impacted dust:

- Water may be applied to designated work areas prior to any clearing, mixing, or other earthmoving operations.
- Water may be applied to disturbed work areas several times per day during dry weather periods.
- The disturbed areas may be sprayed down at the end of each day to form a thin crust.
- Earth moving activities at the site may be suspended if winds steadily exceed 15 miles per hour and creates a dust issue.
- Unpaved haul roads and equipment paths may be watered on a sufficient basis to prevent dust emissions. An alternative to frequent watering may be to pour a 4-inch thick layer of gravel.
- Transportation of soils on-site may be performed in a covered vehicle or the soils must be sufficiently watered to prevent dust emissions.
- Vehicle speeds may not exceed 10 miles per hour and the site may be posted with speed signs.
- Parking areas shall be designated and may be sufficiently watered or gravel-lined to prevent dust emissions.
- Excavated areas and materials may be covered after excavation activities ceased.

If the particulate monitor detects concentrations greater than 150 µg/m^3 (15 minute average) over the daily background or if visible dust is observed, the environmental technician will take corrective actions as defined herein, including the use of water for dust suppression and if this is not effective, requiring workers to wear APRs with high efficiency particulate air filter (HEPA) cartridges.

Absorption pathways for dust and direct contact with soils will be cut off by the required use of latex gloves, hand washing, and decontamination exercises when necessary.

The environmental technician will record air monitoring data and must ensure that air monitoring instruments are calibrated and maintained in accordance with the manufacturer's specifications. Instruments will be zeroed daily and checked for accuracy. Monitoring results will be recorded daily on the log included as **Appendix D**.

The following action levels will be used:

- Total respirable dust at background in breathing zone: continue.
- Total respirable dust at 150 µg /m^3 (15 minute average) greater than background in breathing zone: Level C PPE - HEPA filters.

3.0 REPORTING

Upon completion of site capping, a Construction Completion Report will document the completion of the effort. The report will document that soil was managed in accordance with this plan and that endpoint sample results indicate that the surface soils do not contain concentrations of metals or pesticides greater than their respective NYSDEC RRSCOs. The Completion Report will be submitted to the developer following final capping of the site.

FIGURES

SITE LOCATION

458 Lakeland Ave
Sayville, NY

Miles
0 ¼ ½ ¾ 1 1¼ 1½ 1¾ 2

Project:	RSL1801
Date:	6/8/2018
Designed by:	JLL
Drawn by:	TJS
Approved by:	JLL
Figure No:	1

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG01_SiteLocation.mxd

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG02_SitePlan.mxd

PWGC

Strategic Environmental and Engineering Solutions

P.W. GROSSER CONSULTING ENGINEER AND HYDROGEOLOGIST, P.C.

630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	RSL1801	Designed by:	JLL
Date:	6/8/2018	Drawn by:	TJS
Scale:	AS SHOWN	Approved by:	JLL

SITE PLAN

458 Lakeland Ave
Sayville, NY

FIGURE NO:

2

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG03_SampleLocations.mxd

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	18LP254	Designed by:	JLL
Date:	7/3/2018	Drawn by:	TS
Scale:	AS SHOWN	Approved by:	JLL

SAMPLING LOCATIONS

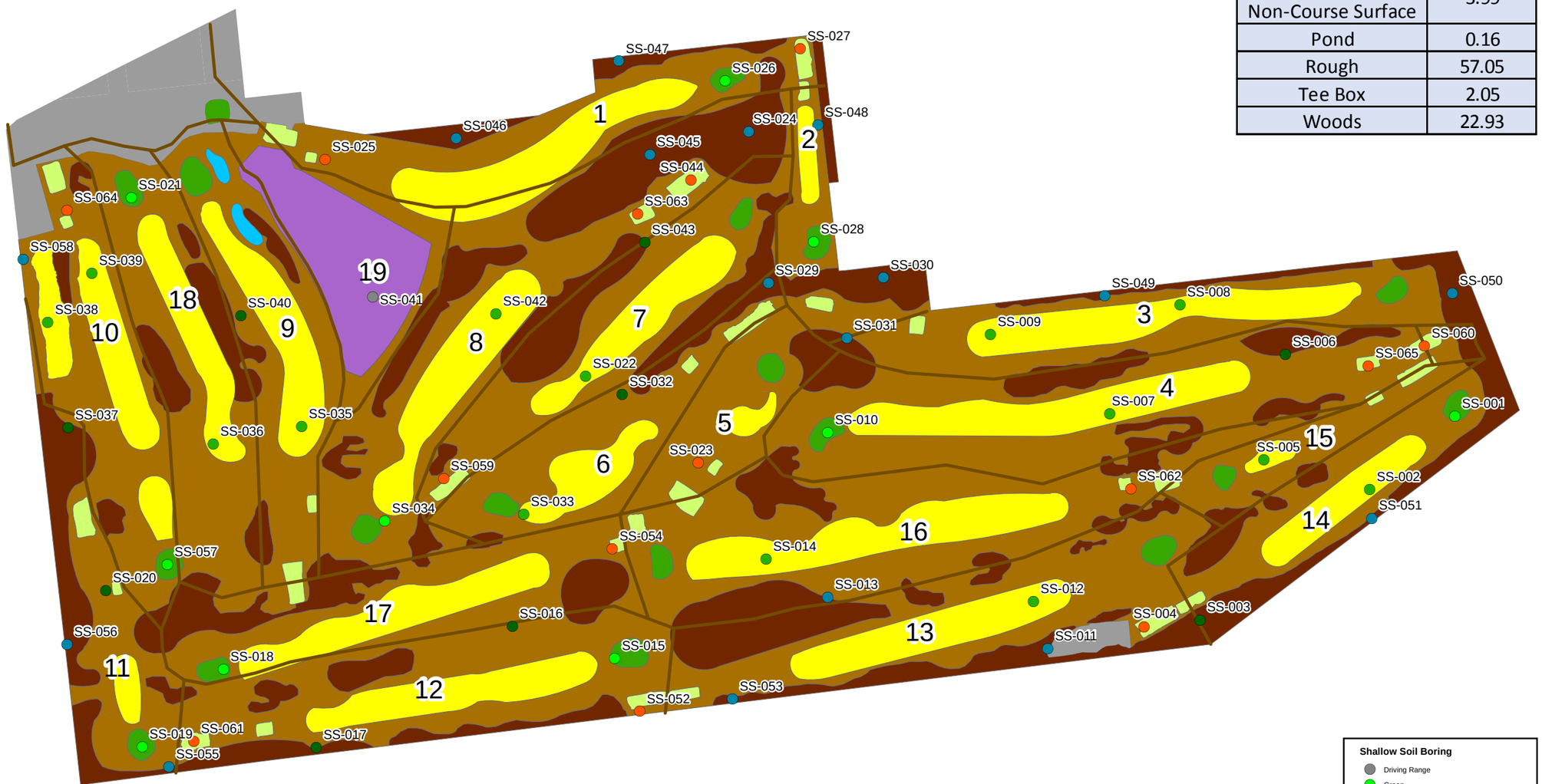
ISLAND HILLS GOLF COURSE
SAYVILLE, NY

FIGURE NO:

3

N

Location Type	Total Area (Acres)
Driving Range	2.94
Fairway	22.99
Green	1.94
Impervious Surface / Non-Course Surface	3.99
Pond	0.16
Rough	57.05
Tee Box	2.05
Woods	22.93



Feet
0 200 400 600 800

Shallow Soil Boring
- Driving Range
- Green
- Fairway
- Rough
- Tee Box
- Woods

Golf Areas
- Driving Range
- Fairway
- Green
- Impervious Surface / Non-Course Surface
- Pond
- Rough
- Tee Box
- Woods

16 Golf Hole Number

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	18LP254	Designed by:	JLL
Date:	7/13/2018	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	JLL

SHALLOW SOIL SAMPLE LOCATIONS

ISLAND HILLS GOLF COURSE
SAYVILLE, NY

FIGURE NO:

4A

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG04D_All_Samples.mxd

N

Compound	RRSCO
Mercury	5.8
Arsenic	16.0
Cadmium	4.3
Chlordane	4.2

Sample Location ID:	SS-021	SS-021	SS-021
Sample Depth:	0 - 3"	18 - 24"	30 - 36"
Sampling Date:	05/21/18	05/21/18	06/12/18
Mercury	14.3	1.0	0.78
Chlordane (technical)	17	0.49	NA

Sample Location ID:	SS-025	SS-025	SS-025	SS-025
Sample Depth:	0 - 3"	18 - 24"	30 - 36"	36 - 42"
Sampling Date:	05/22/18	05/22/18	06/12/18	06/12/18
Mercury	2.4	15.7	2.6	1.5

Sample Location ID:	SS-026	SS-026	SS-026	SS-026
Sample Depth:	0 - 3"	18 - 24"	30 - 36"	36 - 42"
Sampling Date:	05/22/18	05/22/18	06/12/18	06/12/18
Cadmium	7.3	1.2	NA	NA
Mercury	33.4	13.4	3.4	3.0
Chlordane (technical)	12	1.4	NA	NA

Sample Location ID:	SS-027	SS-027	SS-027
Sample Depth:	0 - 3"	18 - 24"	18 - 24"
Sampling Date:	05/22/18	05/22/18	05/22/18
Arsenic	3.2 J	25.9	1.3
Mercury	3.8	6.9	0.069

Sample Location ID:	SS-018	SS-018	SS-018
Sample Depth:	0 - 3"	18 - 24"	30 - 36"
Sampling Date:	05/21/18	05/21/18	06/12/18
Cadmium	4.6	0.41 J	NA
Mercury	15.4	4.5	0.21
Chlordane (technical)	9.7	0.51	NA

Sample Location ID:	SS-026W	SS-026W
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	14.5	6.9

Sample Location ID:	SS-026S	SS-026S
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	0.66	6.10

Sample Location ID:	SS-063	SS-063
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	1.8	17.9

Sample Location ID:	SS-028	SS-028	SS-028
Sample Depth:	0 - 3"	18 - 24"	30 - 36"
Sampling Date:	05/22/18	05/22/18	06/12/18
Cadmium	6.9	0.11 J	NA
Chlordane (technical)	27	0.64	NA

Sample Location ID:	SS-010	SS-010	SS-010
Sample Depth:	0 - 3"	18 - 24"	30 - 36"
Sampling Date:	05/18/2018	05/22/18	06/12/18
Mercury	2.3	6.1	0.26
Chlordane (technical)	7.7	1.2	NA

Sample Location ID:	SS-060	SS-060
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/12/18	06/12/18
Mercury	5.7	7.5

Sample Location ID:	SS-034	SS-034	SS-034
Sample Depth:	0 - 3"	18 - 24"	30 - 36"
Sampling Date:	05/22/18	05/22/18	06/12/18
Chlordane (technical)	14	1.1	NA

Sample Location ID:	SS-057	SS-057
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/12/18	06/12/18
Mercury	26.7	1.2

Sample Location ID:	SS-001	SS-001	SS-001
Sample Depth:	0 - 3"	18 - 24"	30 - 36"
Sampling Date:	05/18/2018	05/22/18	06/12/18
Cadmium	6.5	0.83	NA
Mercury	14.4	4.9	0.4
Chlordane (technical)	36	1.7	NA

Sample Location ID:	SS-054	SS-054
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/12/18	06/12/18
Mercury	17.6	0.12

Sample Location ID:	SS-004	SS-004
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	05/18/2018	05/18/2018
Mercury	10.9	0.23

Sample Location ID:	SS-019N	SS-019N	SS-019N	SS-019N
Sample Depth:	0 - 3"	18 - 24"	30 - 36"	36 - 42"
Sampling Date:	06/15/18	06/15/18	06/15/18	06/15/18
Mercury	0.88	23.5	0.69	0.3

Sample Location ID:	SS-015W	SS-015W
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	41.3	3.9

Sample Location ID:	SS-015N	SS-015N
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	18.8	1.5

Sample Location ID:	SS-019	SS-019	SS-019	SS-019
Sample Depth:	0 - 3"	18 - 24"	30 - 36"	36 - 42"
Sampling Date:	05/21/18	05/21/18	06/12/18	06/12/18
Cadmium	6.9	0.71 U	NA	NA
Mercury	44.4	8.3	0.95	1.80
Chlordane (technical)	26	0.67	NA	NA

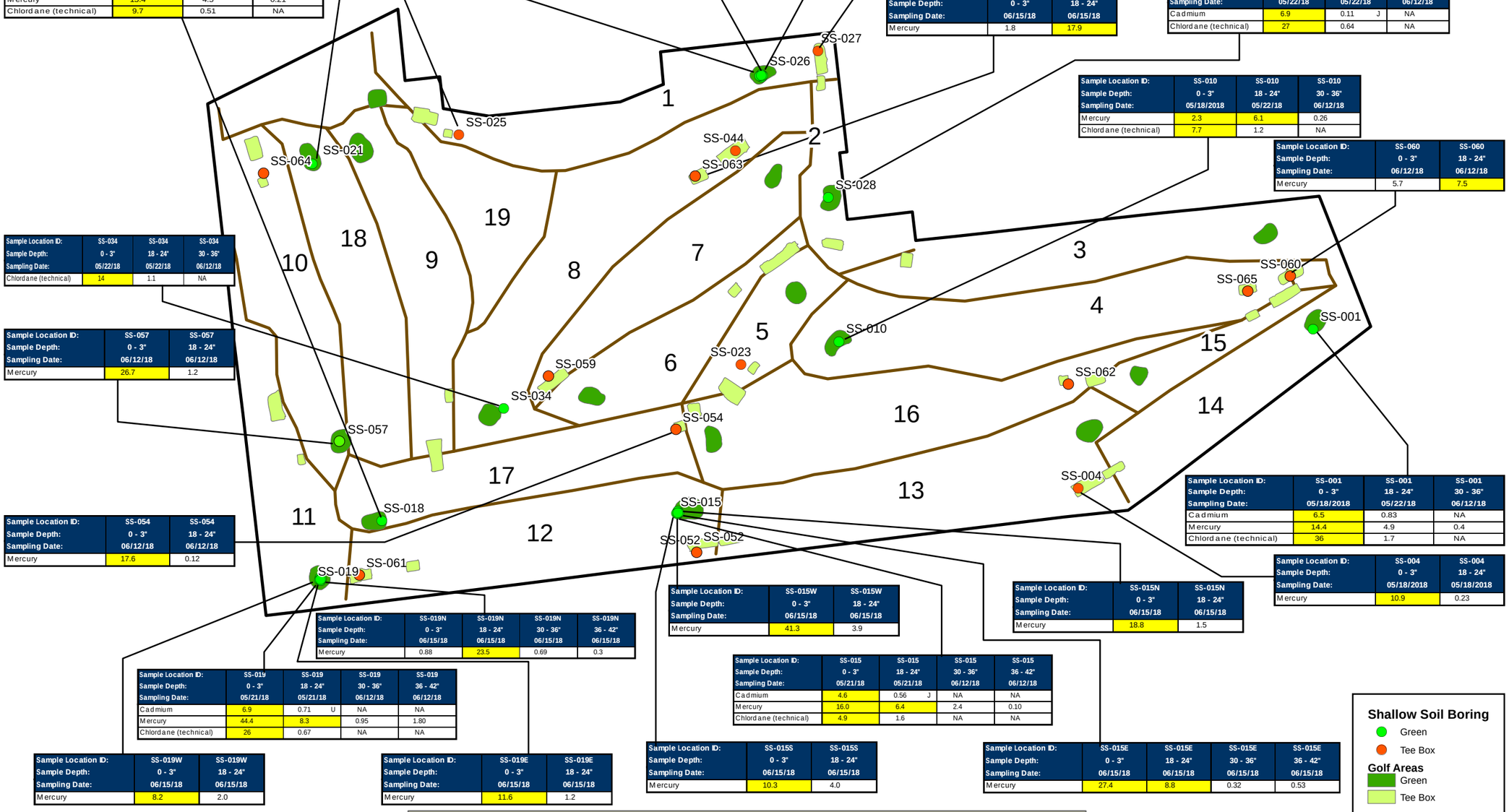
Sample Location ID:	SS-015	SS-015	SS-015	SS-015
Sample Depth:	0 - 3"	18 - 24"	30 - 36"	36 - 42"
Sampling Date:	05/21/18	05/21/18	06/12/18	06/12/18
Cadmium	4.6	0.56 J	NA	NA
Mercury	16.0	6.4	2.4	0.10
Chlordane (technical)	4.9	1.6	NA	NA

Sample Location ID:	SS-019W	SS-019W
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	8.2	2.0

Sample Location ID:	SS-019E	SS-019E
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	11.6	1.2

Sample Location ID:	SS-015S	SS-015S
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	06/15/18	06/15/18
Mercury	10.3	4.0

Sample Location ID:	SS-015E	SS-015E	SS-015E	SS-015E
Sample Depth:	0 - 3"	18 - 24"	30 - 36"	36 - 42"
Sampling Date:	06/15/18	06/15/18	06/15/18	06/15/18
Mercury	27.4	8.8	0.32	0.53



Shallow Soil Boring
- Green
- Tee Box

Golf Areas
- Green
- Tee Box

16 Golf Hole Number

0 250 500 750 1,000 Feet

Notes: The highlighted values represent exceedences of NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives
All concentrations are in mg/kg

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	18LP254	Designed by:	JLL
Date:	7/13/2018	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	JLL

SHALLOW SOIL SAMPLE EXCEEDANCES - GREENS & TEE BOXES

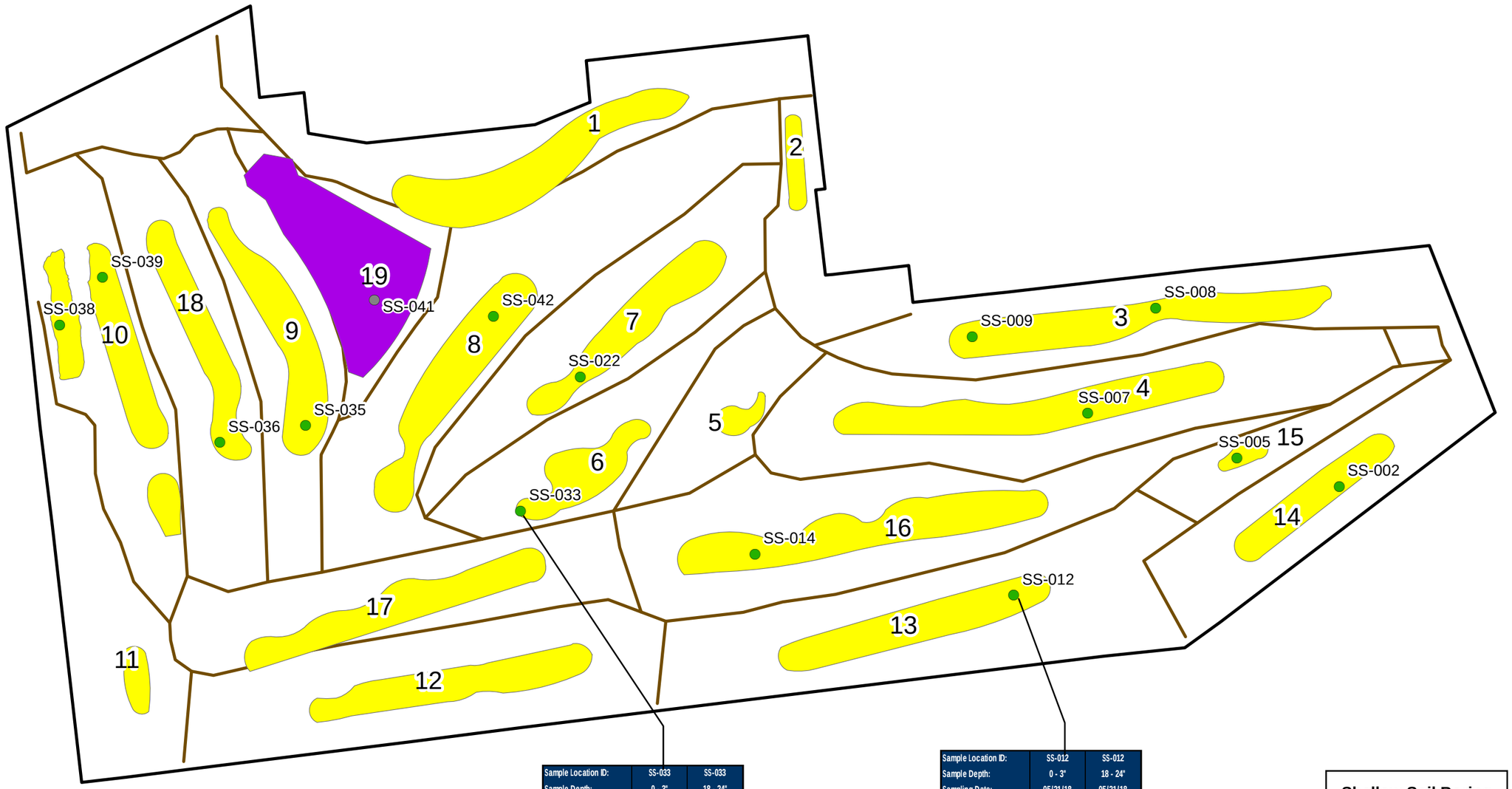
ISLAND HILLS GOLF COURSE
SAYVILLE, NY

FIGURE NO:
4B

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG04A_Greens_Tees_v2.mxd

N

Compound	RRSCO
Mercury	5.8



Sample Location ID:	SS-033	SS-033
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	05/22/18	05/22/18
Mercury	9.5	0.046

Sample Location ID:	SS-012	SS-012
Sample Depth:	0 - 3"	18 - 24"
Sampling Date:	05/21/18	05/21/18
Mercury	6.4	0.084

Shallow Soil Boring
- Driving Range
- Fairway

Golf Areas
- Driving Range
- Fairway

16 Golf Hole Number

0 200 400 600 800 Feet

Notes: The highlighted values represent exceedences of NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives
All concentrations are in mg/kg

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG04B_Fairways_v5.mxd

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	18LP254	Designed by:	JLL
Date:	7/13/2018	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	JLL

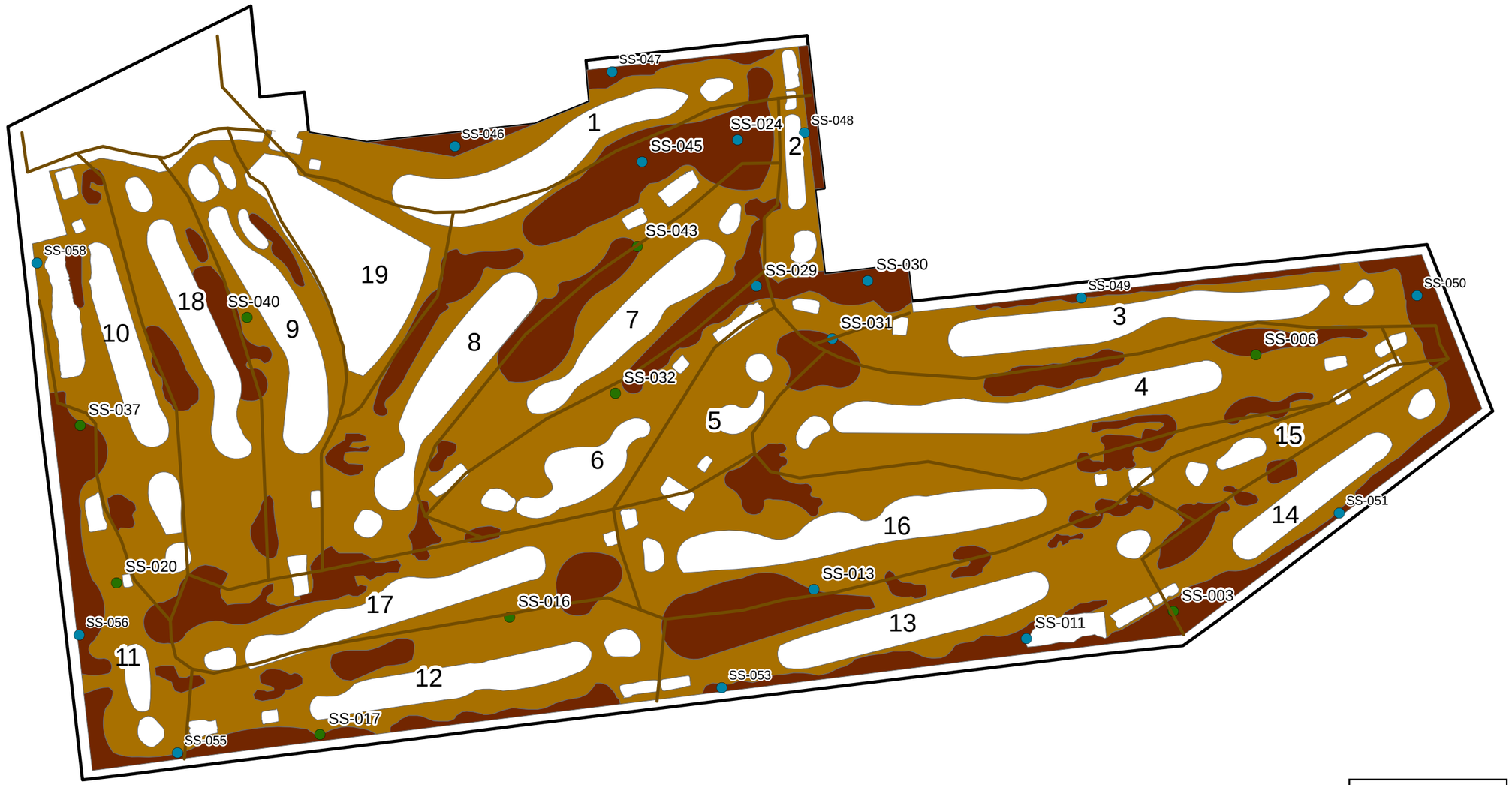
SHALLOW SOIL SAMPLE EXCEEDANCES - FAIRWAYS

ISLAND HILLS GOLF COURSE
SAYVILLE, NY

FIGURE NO:

4C

N



Feet
0 200 400 600 800

Note: The highlighted values represent exceedences of NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives

Shallow Soil Boring
- Rough
- Woods

Golf Areas
- Rough
- Woods

16 Golf Hole Number

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG04C_Roughs_Woods_v4.mxd

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	18LP254	Designed by:	JLL
Date:	7/5/2018	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	JLL

SHALLOW SOIL SAMPLE EXCEEDANCES - ROUGH & WOODS

ISLAND HILLS GOLF COURSE
SAYVILLE, NY

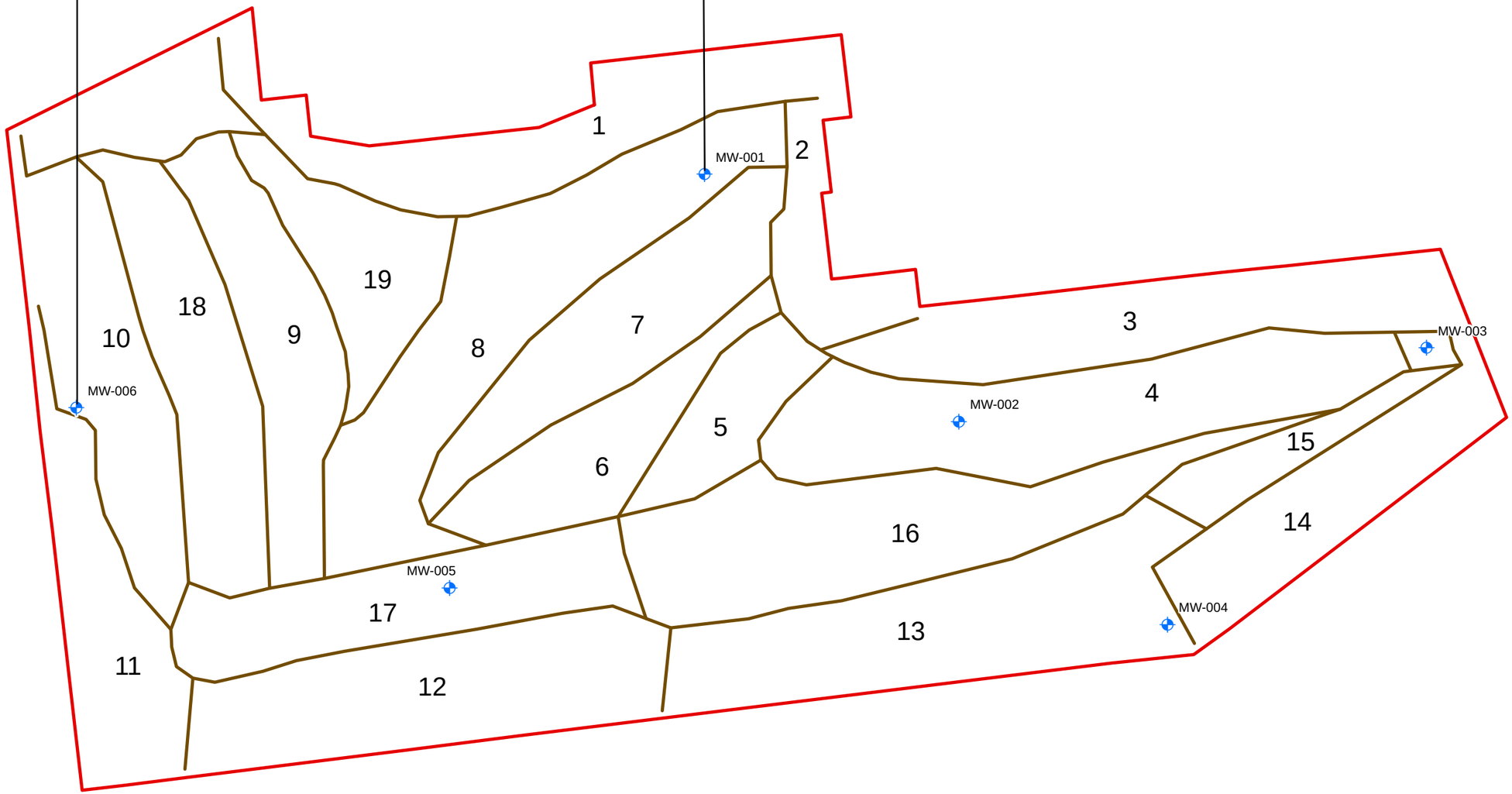
FIGURE NO:

4D

N

MW-006		
5/23/2018		
Compound	Total	Dissolved
Iron	320	71.5
Sodium	23,700	22,400

MW-001		
5/23/2018		
Compound	Total	Dissolved
Manganese	335	312



0 250 500 750 1,000 Feet

16 Golf hole designation
Site Boundary
Monitoring Well Location
Courses

Note: The highlighted values represent the exceedance of NYSDEC TOGS AWQS

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	18LP254	Designed by:	JLL
Date:	6/12/2018	Drawn by:	UC
Scale:	AS SHOWN	Approved by:	JLL

GROUNDWATER EXCEEDANCES

ISLAND HILLS GOLF COURSE
SAYVILLE, NY

FIGURE NO:
5

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\Phase2Report\FIG05_Groundwater.mxd

TABLES

Table 1

Shallow Soil Sample Analytical Results - Greens (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Sample Location ID:				SS-001	SS-001	SS-001	SS-010	SS-010	SS-010	SS-015	SS-015	SS-015	SS-015	SS-015N	SS-015N	SS-015E	SS-015E	SS-015E
Sample Depth:				0 - 3"	18 - 24"	30 - 36"	0 - 3"	18 - 24"	30 - 36"	0 - 3"	18 - 24"	30 - 36"	36 - 42"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	30 - 36"
Laboratory ID:				460-156541-1-DL	460-156722-54	460-158175-4	460-156541-11-	460-156722-63	460-158175-47	460-156630-6	460-156630-25	460-158175-22	460-158175-23	460-158498-1	460-158498-2	460-158498-3	460-158498-4	460-158511-3
Sampling Date:				05/18/2018	05/22/18	06/12/18	05/18/2018	05/22/18	06/12/18	05/21/18	05/21/18	06/12/18	06/12/18	06/15/18	06/15/18	06/15/18	06/15/18	06/15/18
Metals by USEPA Method 6010C (mg/kg)																		
Aluminum	NS	NS	NS	1990	NA	NA	4210	NA	NA	7270	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NS	NS	NS	0.71 J	NA	NA	4.3 U	NA	NA	5.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	16	0.84 J	NA	NA	2.1 J	NA	NA	3.4 J	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	820	400	20.0 J	NA	NA	27.2 J	NA	NA	17.6 J	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	47	72	0.049 U	NA	NA	0.22 J	NA	NA	0.21 J	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	7.5	4.3	6.5	0.83	NA	1.9	0.33 J	NA	4.6	0.56 J	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	NS	NS	1320	NA	NA	698 J	NA	NA	2260	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	30	NS	180	52.1	12.0	NA	15.6	10.0	NA	35.1	14.3	NA	NA	NA	NA	NA	NA	NA
Cobalt	NS	NS	NS	1.3 J	NA	NA	1.2 U	NA	NA	11.3 U	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	1720	270	11.8	NA	NA	9.6	NA	NA	13.5	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NS	NS	NS	4320	NA	NA	2780	NA	NA	3670	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	450	400	17.7	NA	NA	5.0	NA	NA	14.5	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NS	NS	NS	551 J	NA	NA	357 J	NA	NA	679 J	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1600	2000	2000	219	NA	NA	200	NA	NA	301	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	130	310	3.5 J	NA	NA	2.3 J	NA	NA	2.8 J	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NS	NS	NS	196 J	NA	NA	112 J	NA	NA	146 J	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	4	180	1.3 U	NA	NA	1.3 U	NA	NA	4.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	8.3	180	0.33 U	NA	NA	0.32 U	NA	NA	2.3 U	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NS	NS	82.6 U	NA	NA	81.2 U	NA	NA	1130 U	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	NS	NS	1.3 U	NA	NA	1.2 U	NA	NA	4.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NS	NS	NS	6.8 J	NA	NA	4.5 J	NA	NA	5.7 J	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	2480	10000	57.2	NA	NA	44.2	NA	NA	72.1	NA	NA	NA	NA	NA	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)																		
Mercury	0.18	NS[3]	5.8[3]	14.4	4.9	0.4	2.3	6.1	0.26	16.0	6.4	2.4	0.10	18.8	1.5	27.4	8.8	0.32
Herbicides by USEPA Method 8151B (mg/kg)																		
2,4,5-T	NS	1.9	NS	0.0082 U	NA	NA	0.0077 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NS	0.5	NS	0.014 U	NA	NA	0.013 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	0.0040 U	NA	NA	0.0038 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)																		
4,4'-DDD	0.0033	14	13	0.066 U	NA	NA	0.012 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.0033	17	8.9	0.046 U	NA	NA	0.0086 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.0033	136	7.9	0.071 U	NA	NA	0.013 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	0.005	0.19	0.097	0.058 U	NA	NA	0.011 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	0.02	0.48	0.039 U	NA	NA	0.0074 U	NA	NA	0.012 U	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.036	0.09	0.36	0.043 U	NA	NA	0.0081 U	NA	NA	0.012 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane (technical)	0.094	2.9	4.2	36	1.7	NA	7.7	1.2	NA	4.9	1.6	NA	NA	NA	NA	NA	NA	NA
delta-BHC	0.04	0.25	100	0.024 U	NA	NA	0.0044 U	NA	NA	0.012 U	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.005	0.1	0.2	0.050 U	NA	NA	0.0094 U	NA	NA	0.012 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	2.4	102	24	0.059 U	NA	NA	0.011 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	2.4	102	24	0.099 U	NA	NA	0.019 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	2.4	1000	24	0.048 U	NA	NA	0.0091 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	0.014	0.06	11	0.055 U	NA	NA	0.010 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NS	NS	NS	0.091 U	NA	NA	0.017 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NS	NS	NS	0.075 U	NA	NA	0.014 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	0.036 U	NA	NA	0.0067 U	NA	NA	0.012 U	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.042	0.38	2.1	0.046 U	NA	NA	0.0086 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NS	0.02	NS	0.058 U	0.12	NA	0.14	0.0075 U	NA	0.26	0.087	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NS	900	NS	0.088 U	NA	NA	0.017 U	NA	NA	0.039 U	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NS	NS	NS	1.4 U	NA	NA	0.26 U	NA	NA	0.39 U	NA	NA	NA	NA	NA	NA	NA	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-1 and 7-2, September 2006
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 1

Shallow Soil Sample Analytical Results - Greens (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Sample Location ID:				SS-015E	SS-015S	SS-015S	SS-015W	SS-015W	SS-018	SS-018	SS-018	SS-019	SS-019	SS-019	SS-019	SS-019N	SS-019N	SS-019N
Sample Depth:				36 - 42"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	30 - 36"	0 - 3"	18 - 24"	30 - 36"	36 - 42"	0 - 3"	18 - 24"	30 - 36"
Laboratory ID:				460-158511-4	460-158498-5	460-158498-6	460-158498-7	460-158498-8	460-156630-10	460-156630-27	460-158175-28	460-156630-11	460-156630-28	460-158175-36	460-158175-37	460-158498-9	460-158498-10	460-158511-9
Sampling Date:				06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	05/21/18	05/21/18	06/12/18	05/21/18	05/21/18	06/12/18	06/12/18	06/15/18	06/15/18	06/15/18
Metals by USEPA Method 6010C (mg/kg)																		
Aluminum	NS	NS	NS	NA	NA	NA	NA	NA	2930	NA	NA	9340	NA	NA	NA	NA	NA	NA
Antimony	NS	NS	NS	NA	NA	NA	NA	NA	4.8 U	NA	NA	4.7 U	NA	NA	NA	NA	NA	NA
Arsenic	13	16	16	NA	NA	NA	NA	NA	8.7	NA	NA	3.4 J	NA	NA	NA	NA	NA	NA
Barium	350	820	400	NA	NA	NA	NA	NA	24.5 J	NA	NA	22.5 J	NA	NA	NA	NA	NA	NA
Beryllium	7.2	47	72	NA	NA	NA	NA	NA	0.23 J	NA	NA	0.32 J	NA	NA	NA	NA	NA	NA
Cadmium	2.5	7.5	4.3	NA	NA	NA	NA	NA	4.6	0.41 J	NA	6.9	0.71 U	NA	NA	NA	NA	NA
Calcium	NS	NS	NS	NA	NA	NA	NA	NA	1160	NA	NA	1740	NA	NA	NA	NA	NA	NA
Chromium	30	NS	180	NA	NA	NA	NA	NA	44.6	6.7	NA	71.7	11.5	NA	NA	NA	NA	NA
Cobalt	NS	NS	NS	NA	NA	NA	NA	NA	1.4 J	NA	NA	1.7 J	NA	NA	NA	NA	NA	NA
Copper	50	1720	270	NA	NA	NA	NA	NA	11.4	NA	NA	13.7	NA	NA	NA	NA	NA	NA
Iron	NS	NS	NS	NA	NA	NA	NA	NA	4180	NA	NA	5120	NA	NA	NA	NA	NA	NA
Lead	63	450	400	NA	NA	NA	NA	NA	18.9	NA	NA	74.6	12.5	NA	NA	NA	NA	NA
Magnesium	NS	NS	NS	NA	NA	NA	NA	NA	521 J	NA	NA	674 J	NA	NA	NA	NA	NA	NA
Manganese	1600	2000	2000	NA	NA	NA	NA	NA	245	NA	NA	201	NA	NA	NA	NA	NA	NA
Nickel	30	130	310	NA	NA	NA	NA	NA	3.5 J	NA	NA	4.4 J	NA	NA	NA	NA	NA	NA
Potassium	NS	NS	NS	NA	NA	NA	NA	NA	179 J	NA	NA	261 J	NA	NA	NA	NA	NA	NA
Selenium	3.9	4	180	NA	NA	NA	NA	NA	4.6 U	NA	NA	4.8 U	NA	NA	NA	NA	NA	NA
Silver	2	8.3	180	NA	NA	NA	NA	NA	2.3 U	NA	NA	2.4 U	NA	NA	NA	NA	NA	NA
Sodium	NS	NS	NS	NA	NA	NA	NA	NA	1150 U	NA	NA	1190 U	NA	NA	NA	NA	NA	NA
Thallium	NS	NS	NS	NA	NA	NA	NA	NA	4.6 U	NA	NA	4.8 U	NA	NA	NA	NA	NA	NA
Vanadium	NS	NS	NS	NA	NA	NA	NA	NA	6.7 J	NA	NA	8.6 J	NA	NA	NA	NA	NA	NA
Zinc	109	2480	10000	NA	NA	NA	NA	NA	60.8	NA	NA	75.9	NA	NA	NA	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)																		
Mercury	0.18	NS[3]	5.8[3]	0.53	10.3	4.0	41.3	3.9	15.4	4.5	0.21	44.4	8.3	0.95	1.8	0.88	23.5	0.69
Herbicides by USEPA Method 8151B (mg/kg)																		
2,4,5-T	NS	1.9	NS	NA	NA	NA	NA	NA	0.039 U	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
2,4-D	NS	0.5	NS	NA	NA	NA	NA	NA	0.039 U	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	NA	NA	NA	NA	NA	0.039 U	NA	NA	0.040 U	NA	NA	NA	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)																		
4,4'-DDD	0.0033	14	13	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.0033	17	8.9	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.0033	136	7.9	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Aldrin	0.005	0.19	0.097	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	0.02	0.48	NA	NA	NA	NA	NA	0.024 U	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA
beta-BHC	0.036	0.09	0.36	NA	NA	NA	NA	NA	0.061	NA	NA	0.15	NA	NA	NA	NA	NA	NA
Chlordane (technical)	0.094	2.9	4.2	NA	NA	NA	NA	NA	9.7	0.51	NA	26	0.67	NA	NA	NA	NA	NA
delta-BHC	0.04	0.25	100	NA	NA	NA	NA	NA	0.024 U	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA
Dieldrin	0.005	0.1	0.2	NA	NA	NA	NA	NA	0.024 U	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA
Endosulfan I	2.4	102	24	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Endosulfan II	2.4	102	24	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	2.4	1000	24	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Endrin	0.014	0.06	11	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NS	NS	NS	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Endrin ketone	NS	NS	NS	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	NA	NA	NA	NA	NA	0.024 U	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA
Heptachlor	0.042	0.38	2.1	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NS	0.02	NS	NA	NA	NA	NA	NA	0.60	0.034	NA	0.98	0.024	NA	NA	NA	NA	NA
Methoxychlor	NS	900	NS	NA	NA	NA	NA	NA	0.079 U	NA	NA	0.16 U	NA	NA	NA	NA	NA	NA
Toxaphene	NS	NS	NS	NA	NA	NA	NA	NA	0.79 U	NA	NA	1.6 U	NA	NA	NA	NA	NA	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricte
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objec
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the co
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 4
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Us
Highlighted text denotes concentrations exceeding NYSDEC Protection of G
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Resi

Table 1

Shallow Soil Sample Analytical Results - Greens (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Sample Location ID:				SS-019N	SS-019E	SS-019E	SS-019S	SS-019S	SS-019W	SS-019W	SS-021	SS-021	SS-021	SS-026	SS-026	SS-026	SS-026N
Sample Depth:				36 - 42"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	30 - 36"	0 - 3"	18 - 24"	30 - 36"	36 - 42"	0 - 3"
Laboratory ID:				460-158511-10	460-158498-11	460-158498-12	460-158498-13	460-158498-14	460-158498-15	460-158498-16	460-156630-13	460-156630-14	460-158175-39	460-156722-2	460-156722-43	460-158175-15	460-158175-16	460-158498-17
Sampling Date:				06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	05/21/18	05/21/18	06/12/18	05/22/18	05/22/18	06/12/18	06/12/18	06/15/18
Metals by USEPA Method 6010C (mg/kg)																		
Aluminum	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	12400	5150	NA	1320	NA	NA	NA	NA
Antimony	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	4.7 U	4.7 U	NA	5.8 U	NA	NA	NA	NA
Arsenic	13	16	16	NA	NA	NA	NA	NA	NA	NA	6.3	3.1 J	NA	1.5 J	NA	NA	NA	NA
Barium	350	820	400	NA	NA	NA	NA	NA	NA	NA	26.9 J	22.6 J	NA	21.1 J	NA	NA	NA	NA
Beryllium	7.2	47	72	NA	NA	NA	NA	NA	NA	NA	0.39 J	0.20 J	NA	0.12 J	NA	NA	NA	NA
Cadmium	2.5	7.5	4.3	NA	NA	NA	NA	NA	NA	NA	4.1	0.93 U	NA	7.3	1.2	NA	NA	NA
Calcium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1240	804 J	NA	1420 J	NA	NA	NA	NA
Chromium	30	NS	180	NA	NA	NA	NA	NA	NA	NA	34.0	13.6	NA	67.3	13.5	NA	NA	NA
Cobalt	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1.4 J	2.4 J	NA	14.4 U	NA	NA	NA	NA
Copper	50	1720	270	NA	NA	NA	NA	NA	NA	NA	11.0	5.5 J	NA	10.9	NA	NA	NA	NA
Iron	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	4000	13700	NA	4540	NA	NA	NA	NA
Lead	63	450	400	NA	NA	NA	NA	NA	NA	NA	20.1	10.8	NA	11.0	NA	NA	NA	NA
Magnesium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	513 J	1140 J	NA	428 J	NA	NA	NA	NA
Manganese	1600	2000	2000	NA	NA	NA	NA	NA	NA	NA	188	69.7	NA	304	NA	NA	NA	NA
Nickel	30	130	310	NA	NA	NA	NA	NA	NA	NA	4.7 J	7.5 J	NA	2.5 J	NA	NA	NA	NA
Potassium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	166 J	362 J	NA	140 J	NA	NA	NA	NA
Selenium	3.9	4	180	NA	NA	NA	NA	NA	NA	NA	4.5 U	4.7 U	NA	5.8 U	NA	NA	NA	NA
Silver	2	8.3	180	NA	NA	NA	NA	NA	NA	NA	2.2 U	2.3 U	NA	2.9 U	NA	NA	NA	NA
Sodium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1120 U	1170 U	NA	1440 U	NA	NA	NA	NA
Thallium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	4.5 U	4.7 U	NA	5.8 U	NA	NA	NA	NA
Vanadium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	6.5 J	22.3	NA	7.2 J	NA	NA	NA	NA
Zinc	109	2480	10000	NA	NA	NA	NA	NA	NA	NA	50.0	35.2	NA	56.0	NA	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)																		
Mercury	0.18	NS[3]	5.8[3]	0.3	11.6	1.2	3.4	0.53	8.2	2.0	14.3	1.0	0.78	33.4	13.4	3.4	3.0	4.3
Herbicides by USEPA Method 8151B (mg/kg)																		
2,4,5-T	NS	1.9	NS	NA	NA	NA	NA	NA	NA	NA	0.038 U	0.040 U	NA	0.048 U	NA	NA	NA	NA
2,4-D	NS	0.5	NS	NA	NA	NA	NA	NA	NA	NA	0.038 U	0.040 U	NA	0.048 U	NA	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	NA	NA	NA	NA	NA	NA	NA	0.038 U	0.040 U	NA	0.048 U	NA	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)																		
4,4'-DDD	0.0033	14	13	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
4,4'-DDE	0.0033	17	8.9	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
4,4'-DDT	0.0033	136	7.9	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Aldrin	0.005	0.19	0.097	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
alpha-BHC	0.02	0.02	0.48	NA	NA	NA	NA	NA	NA	NA	0.046 U	0.0031	NA	0.029 U	NA	NA	NA	NA
beta-BHC	0.036	0.09	0.36	NA	NA	NA	NA	NA	NA	NA	0.046 U	0.0024 U	NA	0.029 U	NA	NA	NA	NA
Chlordane (technical)	0.094	2.9	4.2	NA	NA	NA	NA	NA	NA	NA	17	0.49	NA	12	1.4	NA	NA	NA
delta-BHC	0.04	0.25	100	NA	NA	NA	NA	NA	NA	NA	0.046 U	0.0024 U	NA	0.029 U	NA	NA	NA	NA
Dieldrin	0.005	0.1	0.2	NA	NA	NA	NA	NA	NA	NA	0.046 U	0.0024 U	NA	0.029 U	NA	NA	NA	NA
Endosulfan I	2.4	102	24	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Endosulfan II	2.4	102	24	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Endosulfan sulfate	2.4	1000	24	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Endrin	0.014	0.06	11	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Endrin aldehyde	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Endrin ketone	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	NA	NA	NA	NA	NA	NA	NA	0.046 U	0.0024 U	NA	0.029 U	NA	NA	NA	NA
Heptachlor	0.042	0.38	2.1	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Heptachlor epoxide	NS	0.02	NS	NA	NA	NA	NA	NA	NA	NA	0.81	0.035	NA	0.096 U	0.0085 U	NA	NA	NA
Methoxychlor	NS	900	NS	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.0080 U	NA	0.096 U	NA	NA	NA	NA
Toxaphene	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1.5 U	0.080 U	NA	0.96 U	NA	NA	NA	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricte
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objec
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the co
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 4
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Us
Highlighted text denotes concentrations exceeding NYSDEC Protection of G
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Resi

Table 1

Shallow Soil Sample Analytical Results - Greens (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Sample Location ID:				SS-026N	SS-026E	SS-026E	SS-026S	SS-026S	SS-026W	SS-026W	SS-028	SS-028	SS-028	SS-034	SS-034	SS-034	SS-057	SS-057
Sample Depth:				18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	30 - 36"	0 - 3"	18 - 24"	30 - 36"	0 - 3"	18 - 24"
Laboratory ID:				460-158498-18	460-158498-19	460-158498-20	460-158498-21	460-158498-22	460-158498-23	460-158498-24	460-156722-5	460-156722-44	460-158175-20	460-156722-12	460-156722-13	460-158175-41	460-156722-32	460-156722-33
Sampling Date:				06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	06/15/18	05/22/18	05/22/18	06/12/18	05/22/18	05/22/18	06/12/18	06/12/18	06/12/18
Metals by USEPA Method 6010C (mg/kg)																		
Aluminum	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	2590	NA	NA	1370	11000	NA	NA	NA
Antimony	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	4.6 U	NA	NA	4.7 U	4.6 U	NA	NA	NA
Arsenic	13	16	16	NA	NA	NA	NA	NA	NA	NA	11.2	NA	NA	3.5 U	14.8	NA	NA	NA
Barium	350	820	400	NA	NA	NA	NA	NA	NA	NA	19.9 J	NA	NA	13.9 J	18.1 J	NA	NA	NA
Beryllium	7.2	47	72	NA	NA	NA	NA	NA	NA	NA	0.16 J	NA	NA	0.12 J	0.32 J	NA	NA	NA
Cadmium	2.5	7.5	4.3	NA	NA	NA	NA	NA	NA	NA	6.9	0.11 J	NA	3.6	0.33 J	NA	NA	NA
Calcium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1520	NA	NA	1200	680 J	NA	NA	NA
Chromium	30	NS	180	NA	NA	NA	NA	NA	NA	NA	43.0	3.6	NA	31.1	16.8	NA	NA	NA
Cobalt	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1.7 J	NA	NA	11.7 U	1.8 J	NA	NA	NA
Copper	50	1720	270	NA	NA	NA	NA	NA	NA	NA	13.8	NA	NA	10.7	5.3 J	NA	NA	NA
Iron	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	5050	NA	NA	4090	13800	NA	NA	NA
Lead	63	450	400	NA	NA	NA	NA	NA	NA	NA	14.2	NA	NA	9.8	16.2	NA	NA	NA
Magnesium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	780 J	NA	NA	662 J	836 J	NA	NA	NA
Manganese	1600	2000	2000	NA	NA	NA	NA	NA	NA	NA	186	NA	NA	216	56.1	NA	NA	NA
Nickel	30	130	310	NA	NA	NA	NA	NA	NA	NA	4.6 J	NA	NA	2.5 J	6.4 J	NA	NA	NA
Potassium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	208 J	NA	NA	120 J	300 J	NA	NA	NA
Selenium	3.9	4	180	NA	NA	NA	NA	NA	NA	NA	4.6 U	NA	NA	4.7 U	4.6 U	NA	NA	NA
Silver	2	8.3	180	NA	NA	NA	NA	NA	NA	NA	2.3 U	NA	NA	2.3 U	2.3 U	NA	NA	NA
Sodium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	1140 U	NA	NA	1170 U	1140 U	NA	NA	NA
Thallium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	4.6 U	NA	NA	4.7 U	4.6 U	NA	NA	NA
Vanadium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	8.2 J	NA	NA	6.0 J	23.7	NA	NA	NA
Zinc	109	2480	10000	NA	NA	NA	NA	NA	NA	NA	60.1	NA	NA	52.2	46.9	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)																		
Mercury	0.18	NS[3]	5.8[3]	3.5	0.22	0.026	0.66	6.10	14.5	6.9	2.6	0.28	0.16	5.8	1.2	0.20	26.7	1.2
Herbicides by USEPA Method 8151B (mg/kg)																		
2,4,5-T	NS	1.9	NS	NA	NA	NA	NA	NA	NA	NA	0.039 U	NA	NA	0.040 U	0.038 U	NA	NA	NA
2,4-D	NS	0.5	NS	NA	NA	NA	NA	NA	NA	NA	0.039 U	NA	NA	0.040 U	0.038 U	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	NA	NA	NA	NA	NA	NA	NA	0.039 U	NA	NA	0.040 U	0.038 U	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)																		
4,4'-DDD	0.0033	14	13	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
4,4'-DDE	0.0033	17	8.9	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
4,4'-DDT	0.0033	136	7.9	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Aldrin	0.005	0.19	0.097	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
alpha-BHC	0.02	0.02	0.48	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA	0.048 U	0.0023 U	NA	NA	NA
beta-BHC	0.036	0.09	0.36	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA	0.048 U	0.0023 U	NA	NA	NA
Chlordane (technical)	0.094	2.9	4.2	NA	NA	NA	NA	NA	NA	NA	27	0.64	NA	14	1.1	NA	NA	NA
delta-BHC	0.04	0.25	100	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA	0.21	0.0023 U	NA	NA	NA
Dieldrin	0.005	0.1	0.2	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA	0.048 U	0.0023 U	NA	NA	NA
Endosulfan I	2.4	102	24	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Endosulfan II	2.4	102	24	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Endosulfan sulfate	2.4	1000	24	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Endrin	0.014	0.06	11	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Endrin aldehyde	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Endrin ketone	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	NA	NA	NA	NA	NA	NA	NA	0.12 U	NA	NA	0.048 U	0.0023 U	NA	NA	NA
Heptachlor	0.042	0.38	2.1	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Heptachlor epoxide	NS	0.02	NS	NA	NA	NA	NA	NA	NA	NA	0.39 U	0.018	NA	0.26	0.070	NA	NA	NA
Methoxychlor	NS	900	NS	NA	NA	NA	NA	NA	NA	NA	0.39 U	NA	NA	0.16 U	0.0076 U	NA	NA	NA
Toxaphene	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	3.9 U	NA	NA	1.6 U	0.076 U	NA	NA	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricte
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objec
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the co
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 4
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Us
Highlighted text denotes concentrations exceeding NYSDEC Protection of G
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Resi

Table 2

Shallow Soil Sample Analytical Results - Greens (VOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green SS-019 0 - 3" 460-156630-05/21/18		Green SS-021 0 - 3" 460-156630-05/21/18	
Volatile Organic Compounds by USEPA method 8260C (mg/Kg)							
1,1,1-Trichloroethane	0.68	0.68	100	0.0011	U	0.00093	U
1,1,2,2-Tetrachloroethane	NS	0.6	NS	0.0011	U	0.00093	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	6	NS	0.0011	U	0.00093	U
1,1,2-Trichloroethane	NS	NS	NS	0.0011	U	0.00093	U
1,1-Dichloroethane	0.27	0.27	26	0.0011	U	0.00093	U
1,1-Dichloroethene	0.33	0.33	100	0.0011	U	0.00093	U
1,2,3-Trichlorobenzene	NS	NS	NS	0.0011	U	0.00093	U
1,2,4-Trichlorobenzene	NS	3.4	NS	0.0011	U	0.00093	U
1,2-Dibromo-3-Chloropropane	NS	NS	NS	0.0011	U	0.00093	U
1,2-Dichlorobenzene	1.1	1.1	100	0.0011	U	0.00093	U
1,2-Dichloroethane	0.02	0.02	3.1	0.0011	U	0.00093	U
1,2-Dichloropropane	NS	NS	NS	0.0011	U	0.00093	U
1,3-Dichlorobenzene	2.4	2.4	49	0.0011	U	0.00093	U
1,4-Dichlorobenzene	1.8	1.8	13	0.0011	U	0.00093	U
1,4-Dioxane	0.1	0.1	13	0.022	U	0.019	U
2-Butanone (MEK)	0.12	0.3	100	0.0054	U	0.0046	U
2-Hexanone	NS	NS	NS	0.0054	U	0.0046	U
4-Methyl-2-pentanone (MIBK)	NS	1	NS	0.0054	U	0.0046	U
Acetone	0.05	0.05	100	0.0054	U	0.0046	U
Benzene	0.06	0.06	4.8	0.0011	U	0.00093	U
Bromoform	NS	NS	NS	0.0011	U	0.00093	U
Bromomethane	NS	NS	NS	0.0011	U	0.00093	U
Carbon disulfide	NS	2.7	NS	0.0011	U	0.00093	U
Carbon tetrachloride	0.76	0.76	2.4	0.0011	U	0.00093	U
Chlorobenzene	1.1	1.1	100	0.0011	U	0.00093	U
Chlorobromomethane	NS	NS	NS	0.0011	U	0.00093	U
Chlorodibromomethane	NS	NS	NS	0.0011	U	0.00093	U
Chloroethane	NS	1.9	NS	0.0011	U	0.00093	U
Chloroform	0.37	0.37	49	0.0011	U	0.00093	U
Chloromethane	NS	NS	NS	0.0011	U	0.00093	U
cis-1,2-Dichloroethene	0.25	0.25	100	0.0011	U	0.00093	U
cis-1,3-Dichloropropene	NS	NS	NS	0.0011	U	0.00093	U
Cyclohexane	NS	NS	NS	0.0011	U	0.00093	U
Dichlorobromomethane	NS	NS	NS	0.0011	U	0.00093	U
Dichlorodifluoromethane	NS	NS	NS	0.0011	U	0.00093	U
Ethylbenzene	1	1	41	0.0011	U	0.00093	U
Ethylene Dibromide	NS	NS	NS	0.0011	U	0.00093	U
Isopropylbenzene	NS	2.3	NS	0.0011	U	0.00093	U
Methyl acetate	NS	NS	NS	0.0054	U	0.0046	U
Methyl tert-butyl ether	0.93	0.93	100	0.0011	U	0.00093	U
Methylcyclohexane	NS	NS	NS	0.0011	U	0.00093	U
Methylene Chloride	0.05	0.05	100	0.0016	B	0.00093	U
m-Xylene & p-Xylene	0.26	NS	NS	0.00049	J	0.00038	J
o-Xylene	0.26	NS	NS	0.00021	J	0.00013	J
Styrene	NS	NS	NS	0.0011	U	0.00093	U
Tetrachloroethene	1.3	1.3	19	0.0011	U	0.00093	U
Toluene	0.7	0.7	100	0.0011	U	0.00093	U
trans-1,2-Dichloroethene	0.19	0.19	100	0.0011	U	0.00093	U
trans-1,3-Dichloropropene	NS	NS	NS	0.0011	U	0.00093	U
Trichloroethene	0.47	0.47	21	0.0011	U	0.00093	U
Trichlorofluoromethane	NS	NS	NS	0.0011	U	0.00093	U
Vinyl chloride	0.02	0.02	0.9	0.0011	U	0.00093	U
Total Conc	NS	NS	NS	0.0023		0.00051	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 3

Shallow Soil Sample Analytical Results - Greens (SVOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green SS-019 0 - 3" 460-156630-11 05/21/18		Green SS-021 0 - 3" 460-156630-13 05/21/18	
Semi-Volatile Organic Compounds by USEPA method 8270D (mg/Kg)							
1,1'-Biphenyl	NS	NS	NS	0.4000	U	0.3800	U
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	0.4000	U	0.3800	U
2,2'-oxybis[1-chloropropane]	NS	NS	NS	0.4000	U	0.3800	U
2,3,4,6-Tetrachlorophenol	NS	NS	NS	0.400	U	0.380	U
2,4,5-Trichlorophenol	NS	0.1	NS	0.400	U	0.380	U
2,4,6-Trichlorophenol	NS	NS	NS	0.160	U	0.150	U
2,4-Dichlorophenol	NS	0.4	NS	0.1600	U	0.1500	U
2,4-Dimethylphenol	NS	NS	NS	0.400	U	0.380	U
2,4-Dinitrophenol	NS	0.2	NS	0.32	U	0.30	U
2,4-Dinitrotoluene	NS	NS	NS	0.081	U	0.077	U
2,6-Dinitrotoluene	NS	NS	NS	0.081	U	0.077	U
2-Chloronaphthalene	NS	NS	NS	0.400	U	0.380	U
2-Chlorophenol	NS	NS	NS	0.4000	U	0.3800	U
2-Methylnaphthalene	NS	36.4	NS	0.4000	U	0.3800	U
2-Methylphenol	0.33	0.33	100	0.4000	U	0.3800	U
2-Nitroaniline	NS	0.4	NS	0.400	U	0.380	U
2-Nitrophenol	NS	0.3	NS	0.400	U	0.380	U
3,3'-Dichlorobenzidine	NS	NS	NS	0.160	U	0.150	U
3-Nitroaniline	NS	0.5	NS	0.400	U	0.380	U
4,6-Dinitro-2-methylphenol	NS	NS	NS	0.320	U	0.300	U
4-Bromophenyl phenyl ether	NS	NS	NS	0.4000	U	0.3800	U
4-Chloro-3-methylphenol	NS	NS	NS	0.4000	U	0.3800	U
4-Chloroaniline	NS	0.22	NS	0.400	U	0.380	U
4-Chlorophenyl phenyl ether	NS	NS	NS	0.4000	U	0.3800	U
4-Methylphenol	0.33	0.33	100	0.4000	U	0.3800	U
4-Nitroaniline	NS	NS	NS	0.400	U	0.380	U
4-Nitrophenol	NS	0.1	NS	0.810	U	0.770	U
Acenaphthene	20	98	100	0.400	U	0.380	U
Acenaphthylene	100	107	100	0.4000	U	0.3800	U
Acetophenone	NS	NS	NS	0.4000	U	0.3800	U
Anthracene	100	1000	100	0.4000	U	0.3800	U
Atrazine	NS	NS	NS	0.1600	U	0.1500	U
Benzaldehyde	NS	NS	NS	0.400	U	0.380	U
Benzo[a]anthracene	1	1	1	0.020	J	0.014	J
Benzo[a]pyrene	1	22	1	0.0400	U	0.0380	U
Benzo[b]fluoranthene	1	1.7	1	0.0400	U	0.0380	U
Benzo[g,h,i]perylene	100	1000	100	0.400	U	0.380	U
Benzo[k]fluoranthene	0.8	1.7	3.9	0.0400	U	0.0380	U
Bis(2-chloroethoxy)methane	NS	NS	NS	0.400	U	0.380	U
Bis(2-chloroethyl)ether	NS	NS	NS	0.0400	U	0.0380	U
Bis(2-ethylhexyl) phthalate	NS	435	NS	0.400	U	0.380	U
Butyl benzyl phthalate	NS	122	NS	0.400	U	0.380	U
Caprolactam	NS	NS	NS	0.400	U	0.380	U
Carbazole	NS	NS	NS	0.4000	U	0.3800	U
Chrysene	1	1	3.9	0.4000	U	0.0130	J
Dibenz(a,h)anthracene	0.33	1000	0.33	0.040	U	0.038	U
Dibenzofuran	7	6.2	59	0.4000	U	0.3800	U
Diethyl phthalate	NS	7.1	NS	0.4000	U	0.3800	U
Dimethyl phthalate	NS	27	NS	0.4000	U	0.3800	U
Di-n-butyl phthalate	NS	8.1	NS	0.400	U	0.380	U
Di-n-octyl phthalate	NS	120	NS	0.400	U	0.380	U
Fluoranthene	100	1000	100	0.0220	J	0.0170	J
Fluorene	30	386	100	0.4000	U	0.3800	U
Hexachlorobenzene	0.33	1.4	1.2	0.0400	U	0.0240	J
Hexachlorobutadiene	NS	NS	NS	0.0810	U	0.0770	U
Hexachlorocyclopentadiene	NS	NS	NS	0.400	U	0.380	U
Hexachloroethane	NS	NS	NS	0.0400	U	0.0380	U
Indeno[1,2,3-cd]pyrene	0.5	8.2	0.5	0.040	U	0.038	U
Isophorone	NS	4.4	NS	0.1600	U	0.1500	U
Naphthalene	12	12	100	0.4000	U	0.3800	U
Nitrobenzene	NS	0.17	NS	0.0400	U	0.0380	U
N-Nitrosodi-n-propylamine	NS	NS	NS	0.0400	U	0.0380	U
N-Nitrosodiphenylamine	NS	NS	NS	0.4000	U	0.3800	U
Pentachlorophenol	0.8	0.8	6.7	0.320	U	0.300	U
Phenanthrene	100	1000	100	0.4000	U	0.3800	U
Phenol	0.33	0.33	100	0.4000	U	0.3800	U
Pyrene	100	1000	100	0.4000	U	0.3800	U
Total Conc	NS	NS	NS	0.042		0.068	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 4

Shallow Soil Sample Analytical Results - Greens (PCBs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Green SS-019 0 - 3" 460-156630-11 05/21/18		Green SS-021 0 - 3" 460-156630-13 05/21/18	
Polychlorinated biphenyls by USEPA method 8082A (mg/Kg)							
Aroclor 1016	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1221	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1232	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1242	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1248	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1254	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1260	NS	NS	NS	0.0810	U	0.0770	U
Aroclor 1268	NS	NS	NS	0.0810	U	0.0770	U
Aroclor-1262	NS	NS	NS	0.0810	U	0.0770	U
Polychlorinated biphenyls, Total	0.1	3.2	1	0.0810	U	0.0770	U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 5

Shallow Soil Sample Analytical Results - Tee Boxes (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Tee Box SS-004 0 - 3" 460-156541-4 05/18/2018	Tee Box SS-004 18 - 24" 460-156541-5 05/18/2018	Tee Box SS-023 0 - 3" 460-156630-16 05/21/18	Tee Box SS-023 18 - 24" 460-156630-17 05/21/18	Tee Box SS-025 0 - 3" 460-156722-1 05/22/18	Tee Box SS-025 18 - 24" 460-156722-43 05/22/18	Tee Box SS-025 30 - 36" 460-158175-11 06/12/18	Tee Box SS-025 36 - 42" 460-158175-12 06/12/18	Tee Box SS-027 0 - 3" 460-156722-3 05/22/18	Tee Box SS-027 18 - 24" 460-156722-4 05/22/18	Tee Box SS-027 30 - 36" 460-158175-17 06/12/18
Metals by USEPA Method 6010C (mg/kg)														
Aluminum	NS	NS	NS	9660	4070	6420	2540	7470	NA	NA	NA	2530	11300	NA
Antimony	NS	NS	NS	1.2 J	0.53 U	4.5 U	4.2 U	5.8 U	NA	NA	NA	5.5 U	5.6 U	NA
Arsenic	13	16	16	14.9	1.9 J	1.8 J	0.93 J	7.2	NA	NA	NA	3.2 J	25.9	1.3
Barium	350	820	400	35.6 J	12.0 J	10.2 J	4.8 J	22.8 J	NA	NA	NA	17.2 J	35.6 J	NA
Beryllium	7.2	47	72	0.15 J	0.051 U	0.16 J	0.095 J	0.29 J	NA	NA	NA	0.17 J	0.45 J	NA
Cadmium	2.5	7.5	4.3	0.47 J	0.13 U	0.96 U	0.90 U	1.2 U	NA	NA	NA	0.18 J	0.50 J	NA
Calcium	NS	NS	NS	2050	1080 J	1830	423 J	1210 J	NA	NA	NA	1060 J	2720	NA
Chromium	30	NS	180	44.2	4.5	26.8	7.5	22.2	NA	NA	NA	25.1	43.4	NA
Cobalt	NS	NS	NS	3.0 J	1.3 U	2.6 J	11.2 U	1.9 J	NA	NA	NA	1.7 J	3.2 J	NA
Copper	50	1720	270	18.9	3.2 J	12.0	3.6 J	8.7	NA	NA	NA	11.7	24.1	NA
Iron	NS	NS	NS	11900	6550	9310	7010	9130	NA	NA	NA	5980	12600	NA
Lead	63	450	400	33.9	7.6	14.9	8.7	18.0	NA	NA	NA	15.0	30.8	NA
Magnesium	NS	NS	NS	1370	349 J	926 J	539 J	885 J	NA	NA	NA	625 J	1500	NA
Manganese	1600	2000	2000	210	13.2	244	45.9	135	NA	NA	NA	242	239	NA
Nickel	30	130	310	8.1 J	1.9 J	5.3 J	4.0 J	5.3 J	NA	NA	NA	4.0 J	8.0 J	NA
Potassium	NS	NS	NS	367 J	153 J	220 J	161 J	261 J	NA	NA	NA	178 J	338 J	NA
Selenium	3.9	4	180	1.4 U	1.3 J	4.8 U	4.5 U	5.8 U	NA	NA	NA	5.5 U	5.6 U	NA
Silver	2	8.3	180	0.36 U	0.34 U	2.4 U	2.2 U	2.9 U	NA	NA	NA	2.7 U	2.8 U	NA
Sodium	NS	NS	NS	90.8 U	85.5 U	1200 U	1120 U	1440 U	NA	NA	NA	1370 U	1400 U	NA
Thallium	NS	NS	NS	1.4 U	1.3 U	4.8 U	4.5 U	5.8 U	NA	NA	NA	5.5 U	5.6 U	NA
Vanadium	NS	NS	NS	22.6	11.4	14.1	12.0	16.1	NA	NA	NA	9.0 J	23.1	NA
Zinc	109	2480	10000	56.8	8.0	39.2	22.7	35.8	NA	NA	NA	42.0	65.7	NA
Mercury by USEPA Method 7471B (mg/kg)														
Mercury	0.18	NS[3]	5.8[3]	10.9	0.23	3.3	0.13	2.4	15.7	2.6	1.5	3.8	6.9	0.069
Herbicides by USEPA Method 8151B (mg/kg)														
2,4,5-T	NS	1.9	NS	0.0084 U	0.0082 U	0.041 U	0.038 U	0.049 U	NA	NA	NA	0.046 U	0.048 U	NA
2,4-D	NS	0.5	NS	0.014 U	0.014 U	0.041 U	0.038 U	0.049 U	NA	NA	NA	0.046 U	0.048 U	NA
Silvex (2,4,5-TP)	3.8	3.8	100	0.0041 U	0.0040 U	0.041 U	0.038 U	0.049 U	NA	NA	NA	0.046 U	0.048 U	NA
Pesticides by USEPA Method 8081B (mg/kg)														
4,4'-DDD	0.0033	14	13	0.0014 U	0.0013 U	0.0083 U	0.0077 U	0.0098 U	NA	NA	NA	0.0093 U	0.0096 U	NA
4,4'-DDE	0.0033	17	8.9	0.12	0.0053 J	0.0083 U	0.0077 U	0.0098 U	NA	NA	NA	0.0093 U	0.13	NA
4,4'-DDT	0.0033	136	7.9	0.10	0.0032 J	0.061	0.021	0.025	NA	NA	NA	0.0093 U	0.11	NA
Aldrin	0.005	0.19	0.097	0.0012 U	0.0012 U	0.0083 U	0.0077 U	0.0098 U	NA	NA	NA	0.0093 U	0.0096 U	NA
alpha-BHC	0.02	0.02	0.48	0.00081 U	0.00078 U	0.0025 U	0.0023 U	0.0029 U	NA	NA	NA	0.0028 U	0.0029 U	NA
beta-BHC	0.036	0.09	0.36	0.00089 U	0.00086 U	0.0025 U	0.0023 U	0.0029 U F1	NA	NA	NA	0.0028 U	0.0029 U	NA
Chlordane (technical)	0.094	2.9	4.2	0.72	0.11	0.37	0.077 U	0.85	0.88	NA	NA	0.99	1.3	NA
delta-BHC	0.04	0.25	100	0.00049 U	0.00047 U	0.0025 U	0.0023 U	0.0029 U F1	NA	NA	NA	0.0028 U	0.0029 U	NA
Dieldrin	0.005	0.1	0.2	0.010	0.0010 U	0.0025 U	0.0023 U	0.0029 U	NA	NA	NA	0.0028 U	0.017	NA
Endosulfan I	2.4	102	24	0.0012 U	0.0012 U	0.0083 U	0.0077 U	0.0098 U	NA	NA	NA	0.0093 U	0.0096 U	NA
Endosulfan II	2.4	102	24	0.0020 U	0.0020 U	0.0083 U	0.0077 U	0.0098 U F1 F2	NA	NA	NA	0.0093 U	0.0096 U	NA
Endosulfan sulfate	2.4	1000	24	0.0010 U	0.00097 U	0.0083 U	0.0077 U	0.0098 U F1 F2	NA	NA	NA	0.0093 U	0.0096 U	NA
Endrin	0.014	0.06	11	0.0011 U	0.0011 U	0.0083 U	0.0077 U	0.0098 U	NA	NA	NA	0.0093 U	0.0096 U	NA
Endrin aldehyde	NS	NS	NS	0.0019 U	0.0018 U	0.0083 U	0.0077 U	0.0098 U F1	NA	NA	NA	0.0093 U	0.0096 U	NA
Endrin ketone	NS	NS	NS	0.0015 U	0.0015 U	0.0083 U	0.0077 U	0.0098 U F1	NA	NA	NA	0.0093 U	0.0096 U	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	0.00074 U	0.00071 U	0.0025 U	0.0023 U	0.0029 U	NA	NA	NA	0.0028 U	0.0029 U	NA
Heptachlor	0.042	0.38	2.1	0.00094 U	0.00091 U	0.0083 U	0.0077 U	0.0098 U	NA	NA	NA	0.0093 U	0.0096 U	NA
Heptachlor epoxide	NS	0.02	NS	0.0012 U	0.0012 U	0.011	0.0077 U	0.0098 U	NA	NA	NA	0.12	0.11	NA
Methoxychlor	NS	900	NS	0.0018 U	0.0018 U	0.0083 U	0.0077 U	0.0098 U F1	NA	NA	NA	0.0093 U	0.0096 U	NA
Toxaphene	NS	NS	NS	0.029 U	0.028 U	0.083 U	0.077 U	0.098 U	NA	NA	NA	0.093 U	0.096 U	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-1 and 7-2, September 2006
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 5

Shallow Soil Sample Analytical Results - Tee Boxes (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Tee Box SS-044 0 - 3" 460-156722-37 05/22/18		Tee Box SS-044 18 - 24" 460-156722-54 05/22/18	Tee Box SS-052 0 - 3" 460-156722-7 06/12/18	Tee Box SS-052 18 - 24" 460-156722-8 06/12/18	Tee Box SS-054 0 - 3" 460-156722-24 06/12/18	Tee Box SS-054 18 - 24" 460-156722-25 06/12/18	Tee Box SS-059 0 - 3" 460-156722-43 06/12/18	Tee Box SS-059 18 - 24" 460-156722-44 06/12/18	Tee Box SS-060 0 - 3" 460-156722-49 06/12/18	Tee Box SS-060 18 - 24" 460-156722-50 06/12/18	Tee Box SS-060 30 - 36" 460-158175-51 06/12/18
Metals by USEPA Method 6010C (mg/kg)															
Aluminum	NS	NS	NS	4030		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NS	NS	NS	4.5	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	16	4.7		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	820	400	17.4	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	47	72	0.19	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	7.5	4.3	0.15	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	NS	NS	1160		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	30	NS	180	13.6		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NS	NS	NS	1.8	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	1720	270	9.8		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NS	NS	NS	6090		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	450	400	27.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NS	NS	NS	752	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1600	2000	2000	166		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	130	310	4.1	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NS	NS	NS	198	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	4	180	4.5	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	8.3	180	2.2	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NS	NS	1110	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	NS	NS	4.5	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NS	NS	NS	11.0	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	2480	10000	38.9		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)															
Mercury	0.18	NS[3]	5.8[3]	0.56		0.090	0.35	0.79	17.6	0.12	1.0	0.47	5.7	7.5	0.10
Herbicides by USEPA Method 8151B (mg/kg)															
2,4,5-T	NS	1.9	NS	0.038	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NS	0.5	NS	0.038	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	0.038	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)															
4,4'-DDD	0.0033	14	13	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.0033	17	8.9	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.0033	136	7.9	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aldrin	0.005	0.19	0.097	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	0.02	0.48	0.0023	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.036	0.09	0.36	0.0023	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane (technical)	0.094	2.9	4.2	0.18		0.077	P	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	0.04	0.25	100	0.0023	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.005	0.1	0.2	0.0023	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	2.4	102	24	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	2.4	102	24	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	2.4	1000	24	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	0.014	0.06	11	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NS	NS	NS	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NS	NS	NS	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	0.0023	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.042	0.38	2.1	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	NS	0.02	NS	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	NS	900	NS	0.0076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	NS	NS	NS	0.076	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricte
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced U
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objecti
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the con
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use
Highlighted text denotes concentrations exceeding NYSDEC Protection of Gr
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Resid

Table 5

Shallow Soil Sample Analytical Results - Tee Boxes (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Tee Box SS-060 36 - 42" 460-158175-52 06/12/18	Tee Box SS-061 0 - 3" 460-158498-25 06/15/18	Tee Box SS-061 18 - 24" 460-158498-26 06/15/18	Tee Box SS-062 0 - 3" 460-158498-27 06/15/18	Tee Box SS-062 18 - 24" 460-158498-28 06/15/18	Tee Box SS-063 0 - 3" 460-158498-29 06/15/18	Tee Box SS-063 18 - 24" 460-158498-30 06/15/18	Tee Box SS-064 0 - 3" 460-158498-31 06/15/18	Tee Box SS-064 18 - 24" 460-158498-32 06/15/18	Tee Box SS-065 0 - 3" 460-158498-33 06/15/18	Tee Box SS-065 18 - 24" 460-158498-34 06/15/18
Metals by USEPA Method 6010C (mg/kg)														
Aluminum	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	820	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	47	72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	7.5	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	30	NS	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	1720	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	450	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1600	2000	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	130	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	4	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	8.3	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	2480	10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)														
Mercury	0.18	NS[3]	5.8[3]	0.21	5.0	2.7	2.9	4.2	1.8	17.9	0.4	1.9	1.5	0.16
Herbicides by USEPA Method 8151B (mg/kg)														
2,4,5-T	NS	1.9	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NS	0.5	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)														
4,4'-DDD	0.0033	14	13	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
4,4'-DDE	0.0033	17	8.9	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
4,4'-DDT	0.0033	136	7.9	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.011	0.0072 U	0.0035 J
Aldrin	0.005	0.19	0.097	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
alpha-BHC	0.02	0.02	0.48	NA	0.011 U	0.0022 U	0.013 U	0.0023 U	0.011 U	0.0022 U	0.011 U	0.0024 U	0.0021 U	0.0024 U
beta-BHC	0.036	0.09	0.36	NA	0.058	0.0022 U	0.017	0.0023 U	0.054	0.0022 U	0.3	0.0024 U	0.0021 U	0.0024
Chlordane (technical)	0.094	2.9	4.2	NA	3.6	0.6	3.7	0.64	2	0.73	1.9	0.079 U	0.39	0.74
delta-BHC	0.04	0.25	100	NA	0.011 U	0.0022 U	0.013 U	0.0023 U	0.011 U	0.0022 U	0.011 U	0.0024 U	0.0021 U	0.0024 U
Dieldrin	0.005	0.1	0.2	NA	0.011 U	0.0022 U	0.013 U	0.0023 U	0.011 U	0.0022 U	0.011 U	0.0092	0.0021 U	0.0048
Endosulfan I	2.4	102	24	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Endosulfan II	2.4	102	24	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Endosulfan sulfate	2.4	1000	24	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Endrin	0.014	0.06	11	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Endrin aldehyde	NS	NS	NS	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Endrin ketone	NS	NS	NS	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
gamma-BHC (Lindane)	0.1	0.1	1.3	NA	0.011 U	0.0033	0.013 U	0.0028	0.011 U	0.0035	0.011 U	0.0024 U	0.0034	0.0031
Heptachlor	0.042	0.38	2.1	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Heptachlor epoxide	NS	0.02	NS	NA	0.052	0.006 J	0.051	0.0077	0.031 J	0.022	0.03 J	0.0079 U	0.0063 J	0.18
Methoxychlor	NS	900	NS	NA	0.037 U	0.0073 U	0.043 U	0.0076 U	0.038 U	0.0074 U	0.037 U	0.0079 U	0.0072 U	0.0079 U
Toxaphene	NS	NS	NS	NA	0.37 U	0.073 U	0.43 U	0.076 U	0.38 U	0.074 U	0.37 U	0.079 U	0.072 U	0.079 U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricte
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced U
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objecti
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the con
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use
Highlighted text denotes concentrations exceeding NYSDEC Protection of Gr
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Resid

Table 6

Shallow Soil Sample Analytical Results - Tee Boxes (VOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Tee Box SS-023 18" - 24" 460-156630- 05/21/18	
Volatile Organic Compounds by USEPA method 8260C (mg/Kg)					
1,1,1-Trichloroethane	0.68	0.68	100	0.0010	U
1,1,2,2-Tetrachloroethane	NS	0.6	NS	0.0010	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	6	NS	0.0010	U
1,1,2-Trichloroethane	NS	NS	NS	0.0010	U
1,1-Dichloroethane	0.27	0.27	26	0.0010	U
1,1-Dichloroethene	0.33	0.33	100	0.0010	U
1,2,3-Trichlorobenzene	NS	NS	NS	0.0010	U
1,2,4-Trichlorobenzene	NS	3.4	NS	0.0010	U
1,2-Dibromo-3-Chloropropane	NS	NS	NS	0.0010	U
1,2-Dichlorobenzene	1.1	1.1	100	0.0010	U
1,2-Dichloroethane	0.02	0.02	3.1	0.0010	U
1,2-Dichloropropane	NS	NS	NS	0.0010	U
1,3-Dichlorobenzene	2.4	2.4	49	0.0010	U
1,4-Dichlorobenzene	1.8	1.8	13	0.0010	U
1,4-Dioxane	0.1	0.1	13	0.020	U
2-Butanone (MEK)	0.12	0.3	100	0.0051	U
2-Hexanone	NS	NS	NS	0.0051	U
4-Methyl-2-pentanone (MIBK)	NS	1	NS	0.0051	U
Acetone	0.05	0.05	100	0.0051	U
Benzene	0.06	0.06	4.8	0.0010	U
Bromoform	NS	NS	NS	0.0010	U
Bromomethane	NS	NS	NS	0.0010	U
Carbon disulfide	NS	2.7	NS	0.0010	U
Carbon tetrachloride	0.76	0.76	2.4	0.0010	U
Chlorobenzene	1.1	1.1	100	0.0010	U
Chlorobromomethane	NS	NS	NS	0.0010	U
Chlorodibromomethane	NS	NS	NS	0.0010	U
Chloroethane	NS	1.9	NS	0.0010	U
Chloroform	0.37	0.37	49	0.0010	U
Chloromethane	NS	NS	NS	0.0010	U
cis-1,2-Dichloroethene	0.25	0.25	100	0.0010	U
cis-1,3-Dichloropropene	NS	NS	NS	0.0010	U
Cyclohexane	NS	NS	NS	0.0010	U
Dichlorobromomethane	NS	NS	NS	0.0010	U
Dichlorodifluoromethane	NS	NS	NS	0.0010	U
Ethylbenzene	1	1	41	0.0010	U
Ethylene Dibromide	NS	NS	NS	0.0010	U
Isopropylbenzene	NS	2.3	NS	0.0010	U
Methyl acetate	NS	NS	NS	0.0051	U
Methyl tert-butyl ether	0.93	0.93	100	0.0010	U
Methylcyclohexane	NS	NS	NS	0.0010	U
Methylene Chloride	0.05	0.05	100	0.0010	B
m-Xylene & p-Xylene	0.26	NS	NS	0.00033	J
o-Xylene	0.26	NS	NS	0.00014	J
Styrene	NS	NS	NS	0.0010	U
Tetrachloroethene	1.3	1.3	19	0.0010	U
Toluene	0.7	0.7	100	0.0010	U
trans-1,2-Dichloroethene	0.19	0.19	100	0.0010	U
trans-1,3-Dichloropropene	NS	NS	NS	0.0010	U
Trichloroethene	0.47	0.47	21	0.0010	U
Trichlorofluoromethane	NS	NS	NS	0.0010	U
Vinyl chloride	0.02	0.02	0.9	0.0010	U
Total Conc	NS	NS	NS	0.00147	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 3
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reporte
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 7

Shallow Soil Sample Analytical Results - Tee Boxes (SVOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Tee Box SS-023 18" - 24" 460-156630-17 05/21/18	
Semi-Volatile Organic Compounds by USEPA method 8270D (mg/Kg)					
1,1'-Biphenyl	NS	NS	NS	0.3800	U
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	0.3800	U
2,2'-oxybis[1-chloropropane]	NS	NS	NS	0.3800	U
2,3,4,6-Tetrachlorophenol	NS	NS	NS	0.380	U
2,4,5-Trichlorophenol	NS	0.1	NS	0.380	U
2,4,6-Trichlorophenol	NS	NS	NS	0.150	U
2,4-Dichlorophenol	NS	0.4	NS	0.1500	U
2,4-Dimethylphenol	NS	NS	NS	0.380	U
2,4-Dinitrophenol	NS	0.2	NS	0.30	U
2,4-Dinitrotoluene	NS	NS	NS	0.077	U
2,6-Dinitrotoluene	NS	NS	NS	0.077	U
2-Chloronaphthalene	NS	NS	NS	0.380	U
2-Chlorophenol	NS	NS	NS	0.3800	U
2-Methylnaphthalene	NS	36.4	NS	0.3800	U
2-Methylphenol	0.33	0.33	100	0.3800	U
2-Nitroaniline	NS	0.4	NS	0.380	U
2-Nitrophenol	NS	0.3	NS	0.380	U
3,3'-Dichlorobenzidine	NS	NS	NS	0.150	U
3-Nitroaniline	NS	0.5	NS	0.380	U
4,6-Dinitro-2-methylphenol	NS	NS	NS	0.300	U
4-Bromophenyl phenyl ether	NS	NS	NS	0.3800	U
4-Chloro-3-methylphenol	NS	NS	NS	0.3800	U
4-Chloroaniline	NS	0.22	NS	0.380	U
4-Chlorophenyl phenyl ether	NS	NS	NS	0.3800	U
4-Methylphenol	0.33	0.33	100	0.3800	U
4-Nitroaniline	NS	NS	NS	0.380	U
4-Nitrophenol	NS	0.1	NS	0.770	U
Acenaphthene	20	98	100	0.380	U
Acenaphthylene	100	107	100	0.3800	U
Acetophenone	NS	NS	NS	0.3800	U
Anthracene	100	1000	100	0.3800	U
Atrazine	NS	NS	NS	0.1500	U
Benzaldehyde	NS	NS	NS	0.380	U
Benzo[a]anthracene	1	1	1	0.038	U
Benzo[a]pyrene	1	22	1	0.0380	U
Benzo[b]fluoranthene	1	1.7	1	0.0380	U
Benzo[g,h,i]perylene	100	1000	100	0.3800	U
Benzo[k]fluoranthene	0.8	1.7	3.9	0.0380	U
Bis(2-chloroethoxy)methane	NS	NS	NS	0.380	U
Bis(2-chloroethyl)ether	NS	NS	NS	0.0380	U
Bis(2-ethylhexyl) phthalate	NS	435	NS	0.380	U
Butyl benzyl phthalate	NS	122	NS	0.380	U
Caprolactam	NS	NS	NS	0.380	U
Carbazole	NS	NS	NS	0.3800	U
Chrysene	1	1	3.9	0.3800	U
Dibenz(a,h)anthracene	0.33	1000	0.33	0.038	U
Dibenzofuran	7	6.2	59	0.3800	U
Diethyl phthalate	NS	7.1	NS	0.3800	U
Dimethyl phthalate	NS	27	NS	0.3800	U
Di-n-butyl phthalate	NS	8.1	NS	0.380	U
Di-n-octyl phthalate	NS	120	NS	0.380	U
Fluoranthene	100	1000	100	0.3800	U
Fluorene	30	386	100	0.3800	U
Hexachlorobenzene	0.33	1.4	1.2	0.0380	U
Hexachlorobutadiene	NS	NS	NS	0.0770	U
Hexachlorocyclopentadiene	NS	NS	NS	0.380	U
Hexachloroethane	NS	NS	NS	0.0380	U
Indeno[1,2,3-cd]pyrene	0.5	8.2	0.5	0.038	U
Isophorone	NS	4.4	NS	0.1500	U
Naphthalene	12	12	100	0.3800	U
Nitrobenzene	NS	0.17	NS	0.0380	U
N-Nitrosodi-n-propylamine	NS	NS	NS	0.0380	U
N-Nitrosodiphenylamine	NS	NS	NS	0.3800	U
Pentachlorophenol	0.8	0.8	6.7	0.300	U
Phenanthrene	100	1000	100	0.3800	U
Phenol	0.33	0.33	100	0.3800	U
Pyrene	100	1000	100	0.3800	U
Total Conc	NS	NS	NS	0	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Object
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approxim
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has be
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 8

Shallow Soil Sample Analytical Results - Tee Boxes (PCBs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Tee Box SS-023 18" - 24" 460-156630-17 05/21/18	
Polychlorinated biphenyls by USEPA method 8082A (mg/Kg)					
Aroclor 1016	NS	NS	NS	0.0770	U
Aroclor 1221	NS	NS	NS	0.0770	U
Aroclor 1232	NS	NS	NS	0.0770	U
Aroclor 1242	NS	NS	NS	0.0770	U
Aroclor 1248	NS	NS	NS	0.0770	U
Aroclor 1254	NS	NS	NS	0.0770	U
Aroclor 1260	NS	NS	NS	0.0770	U
Aroclor 1268	NS	NS	NS	0.0770	U
Aroclor-1262	NS	NS	NS	0.0770	U
Polychlorinated biphenyls, Total	0.1	3.2	1	0.0770	U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 3
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reporte
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 9

Shallow Soil Sample Analytical Results - Fairways (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway
Sample Location ID:				SS-002	SS-002	SS-005	SS-005	SS-007	SS-007	SS-008	SS-008	SS-009	SS-009	SS-012	SS-012	SS-014	SS-014
Sample Depth:				0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"
Laboratory ID:				460-156541-2-	460-156722-56	460-156541-6-	460-156722-59	460-156541-8	460-156722-39	460-156541-9-	460-156722-61	460-156541-10-	460-156722-62	460-156630-3	460-156630-22	460-156630-5	460-156630-24
Sampling Date:				05/18/2018	5/22/2018	05/18/2018	5/22/2018	05/18/2018	5/22/2018	05/18/2018	5/22/2018	05/18/2018	5/22/2018	05/21/18	05/21/18	05/21/18	05/21/18
Metals by USEPA Method 6010C (mg/kg)																	
Aluminum	NS	NS	NS	6360	NA	7000	NA	6320	5800	6450	NA	1010	NA	8390	NA	1370	NA
Antimony	NS	NS	NS	1.4 J	NA	1.0 J	NA	0.76 J	4.4 U	0.72 J	NA	0.51 U	NA	5.7 U	NA	4.5 U	NA
Arsenic	13	16	16	4.4	NA	3.4 J	NA	2.5 J	2.0 J	2.1 J	NA	0.78 U	NA	2.3 J	NA	1.3 J	NA
Barium	350	820	400	16.4 J	NA	16.4 J	NA	11.0 J	8.5 J	12.7 J	NA	8.7 J	NA	13.1 J	NA	14.9 J	NA
Beryllium	7.2	47	72	0.053 U	NA	0.057 U	NA	0.053 U	0.19 J	0.055 U	NA	0.048 U	NA	0.25 J	NA	0.10 J	NA
Cadmium	2.5	7.5	4.3	0.33 J	NA	0.73 J	NA	0.25 J	0.88 U	0.42 J	NA	0.21 J	NA	0.50 J	NA	0.42 J	NA
Calcium	NS	NS	NS	1590	NA	2070	NA	999 J	731 J	1930	NA	1180 J	NA	1770	NA	1320	NA
Chromium	30	NS	180	23.9	10.9	34.2	12.9	19.8	9.1	34.3	11.9	18.1	8.8	38.8	9.5	32.4	7.3
Cobalt	NS	NS	NS	1.3 U	NA	1.4 U	NA	1.3 U	11.0 U	1.4 U	NA	1.4 U	NA	16.1 U	NA	12.0 U	NA
Copper	50	1720	270	6.7	NA	8.0	NA	4.7 J	2.9 J	7.4	NA	4.4 J	NA	6.3 J	NA	5.2 J	NA
Iron	NS	NS	NS	6720	NA	8670	NA	7710	8720	9840	NA	6800	NA	7500	NA	6110	NA
Lead	63	450	400	20.9	NA	20.0	NA	15.0	5.7	22.8	NA	13.1	NA	29.3	NA	21.3	NA
Magnesium	NS	NS	NS	595 J	NA	722 J	NA	547 J	404 J	1010 J	NA	543 J	NA	700 J	NA	510 J	NA
Manganese	1600	2000	2000	74.7	NA	73.0	NA	71.7	39.2	104	NA	48.0	NA	89.0	NA	856	NA
Nickel	30	130	310	3.7 J	NA	3.8 J	NA	3.3 J	2.3 J	5.2 J	NA	3.3 J	NA	3.8 J	NA	4.2 J	NA
Potassium	NS	NS	NS	188 J	NA	216 J	NA	188 J	119 J	258 J	NA	159 J	NA	197 J	NA	158 J	NA
Selenium	3.9	4	180	1.4 U	NA	1.5 U	NA	1.4 U	4.4 U	1.5 U	NA	1.4 U	NA	6.4 U	NA	4.8 U	NA
Silver	2	8.3	180	0.35 U	NA	0.38 U	NA	0.35 U	2.2 U	0.37 U	NA	0.36 U	NA	3.2 U	NA	2.4 U	NA
Sodium	NS	NS	NS	89.1 U	NA	95.4 U	NA	89.5 U	1100 U	93.9 U	NA	91.8 U	NA	1610 U	NA	1200 U	NA
Thallium	NS	NS	NS	1.4 U	NA	1.5 U	NA	1.4 U	4.4 U	1.4 U	NA	1.4 U	NA	6.4 U	NA	4.8 U	NA
Vanadium	NS	NS	NS	14.6	NA	16.8	NA	14.1	14.1	18.7	NA	13.6	NA	17.3	NA	13.8	NA
Zinc	109	2480	10000	31.0	NA	33.6	NA	24.1	8.0	38.7	NA	19.8	NA	33.7	NA	30.8	NA
Mercury by USEPA Method 7471B (mg/kg)																	
Mercury	0.18	NS[3]	5.8[3]	1.6	0.087	4.2	0.44	2.3	0.31	3.9	0.089	3.0	0.16	6.4	0.084	5.3	0.088
Herbicides by USEPA Method 8151B (mg/kg)																	
2,4,5-T	NS	1.9	NS	0.0086 U	NA	0.0089 U	NA	0.0089 U	0.038 U	0.0090 U	NA	0.0090 U	NA	0.054 U	NA	0.041 U	NA
2,4-D	NS	0.5	NS	0.015 U	NA	0.015 U	NA	0.015 U	0.038 U	0.015 U	NA	0.015 U	NA	0.054 U	NA	0.041 U	NA
Silvex (2,4,5-TP)	3.8	3.8	100	0.0042 U	NA	0.0044 U	NA	0.0044 U	0.038 U	0.0044 U	NA	0.0044 U	NA	0.054 U	NA	0.041 U	NA
Pesticides by USEPA Method 8081B (mg/kg)																	
4,4'-DDD	0.0033	14	13	0.0069 U	NA	0.0072 U	NA	0.0014 U	0.0076 U	0.0073 U	NA	0.0072 U	NA	0.011 U	NA	0.0082 U	NA
4,4'-DDE	0.0033	17	8.9	0.0048 U	NA	0.0050 U	NA	0.00099 U	0.0076 U	0.0050 U	NA	0.0050 U	NA	0.011 U	NA	0.0082 U	NA
4,4'-DDT	0.0033	136	7.9	0.0075 U	NA	0.0078 U	NA	0.0015 U	0.0076 U	0.0078 U	NA	0.0078 U	NA	0.011 U	NA	0.0099	NA
Aldrin	0.005	0.19	0.097	0.0061 U	NA	0.0064 U	NA	0.0013 U	0.0076 U	0.0064 U	NA	0.0064 U	NA	0.011 U	NA	0.0082 U	NA
alpha-BHC	0.02	0.02	0.48	0.0041 U	NA	0.0043 U	NA	0.00085 U	0.0023 U	0.0043 U	NA	0.0043 U	NA	0.0032 U	NA	0.0025 U	NA
beta-BHC	0.036	0.09	0.36	0.0045 U	NA	0.0047 U	NA	0.00094 U	0.0023 U	0.0048 U	NA	0.0048 U	NA	0.0032 U	NA	0.0025 U	NA
Chlordane (technical)	0.094	2.9	4.2	2.8	0.12 P	2.8	0.093 P	0.67	0.076 U	1.7	0.075 U	1.4	0.15 P	1.1	0.078 U	0.47	0.074 U
delta-BHC	0.04	0.25	100	0.0025 U	NA	0.0026 U	NA	0.00051 U	0.0023 U	0.0026 U	NA	0.0026 U	NA	0.0032 U	NA	0.0025 U	NA
Dieldrin	0.005	0.1	0.2	0.0053 U	NA	0.0055 U	NA	0.0011 U	0.0023 U	0.0056 U	NA	0.0055 U	NA	0.0032 U	NA	0.026	NA
Endosulfan I	2.4	102	24	0.0062 U	NA	0.0064 U	NA	0.0013 U	0.0076 U	0.0065 U	NA	0.0065 U	NA	0.011 U	NA	0.0082 U	NA
Endosulfan II	2.4	102	24	0.010 U	NA	0.011 U	NA	0.0022 U	0.0076 U	0.011 U	NA	0.011 U	NA	0.011 U	NA	0.0082 U	NA
Endosulfan sulfate	2.4	1000	24	0.0051 U	NA	0.0053 U	NA	0.0011 U	0.0076 U	0.0054 U	NA	0.0053 U	NA	0.011 U	NA	0.0082 U	NA
Endrin	0.014	0.06	11	0.0058 U	NA	0.0061 U	NA	0.0012 U	0.0076 U	0.0061 U	NA	0.0061 U	NA	0.011 U	NA	0.0082 U	NA
Endrin aldehyde	NS	NS	NS	0.0096 U	NA	0.010 U	NA	0.0020 U	0.0076 U	0.010 U	NA	0.010 U	NA	0.011 U	NA	0.0082 U	NA
Endrin ketone	NS	NS	NS	0.0079 U	NA	0.0082 U	NA	0.0016 U	0.0076 U	0.0083 U	NA	0.0083 U	NA	0.011 U	NA	0.0082 U	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	0.0038 U	NA	0.0039 U	NA	0.00078 U	0.0023 U	0.0040 U	NA	0.0039 U	NA	0.0032 U	NA	0.0025 U	NA
Heptachlor	0.042	0.38	2.1	0.0048 U	NA	0.0050 U	NA	0.00099 U	0.0076 U	0.0050 U	NA	0.0050 U	NA	0.011 U	NA	0.0082 U	NA
Heptachlor epoxide	NS	0.02	NS	0.31	0.014	0.34	0.017	0.0013 U	0.011	0.24	0.0075	0.28	0.035	0.33	0.0023 J F1	0.25	0.0074 U
Methoxychlor	NS	900	NS	0.0093 U	NA	0.0096 U	NA	0.0019 U	0.0076 U	0.0098 U	NA	0.0097 U	NA	0.011 U	NA	0.0082 U	NA
Toxaphene	NS	NS	NS	0.15 U	NA	0.15 U	NA	0.030 U	0.076 U	0.15 U	NA	0.15 U	NA	0.11 U	NA	0.082 U	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-1 and 7-2, September 2006
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 9

Shallow Soil Sample Analytical Results - Fairways (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC	NYSDEC	NYSDEC	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway	Fairway
Sample Location ID:	Unrestricted	Groundwater	Restricted	SS-022	SS-022	SS-033	SS-033	SS-035	SS-035	SS-036	SS-036	SS-038	SS-038	SS-039	SS-039	SS-042	SS-042
Sample Depth:	Use Soil	Protection Soil	Residential Soil	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"	0 - 3"	18 - 24"
Laboratory ID:	Cleanup	Cleanup	Cleanup	460-156630-15	460-156630-30	460-156722-11	460-156722-48	460-156722-14	460-156722-49	460-156722-15	460-156722-16	460-156722-18	460-156722-19	460-156722-20	460-156722-51	460-156722-34	460-156722-53
Sampling Date:	Objective[1]	Objective[2]	Objective[2]	05/21/18	05/21/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18
Metals by USEPA Method 6010C (mg/kg)																	
Aluminum	NS	NS	NS	5800	NA	4600	NA	4470	NA	4490	3780	4710	2600	6300	NA	3830	NA
Antimony	NS	NS	NS	4.8 U	NA	5.0 U	NA	5.0 U	NA	4.4 U	4.3 U	4.4 U	4.2 U	4.6 U	NA	4.5 U	NA
Arsenic	13	16	16	8.1	NA	2.3 J	NA	2.7 J	NA	2.3 J	0.83 J	1.5 J	3.2 U	2.6 J	NA	2.1 J	NA
Barium	350	820	400	23.0 J	NA	18.8 J	NA	18.1 J	NA	17.9 J	5.1 J	10.7 J	12.5 J	18.0 J	NA	27.0 J	NA
Beryllium	7.2	47	72	0.28 J	NA	0.17 J	NA	0.17 J	NA	0.20 J	0.10 J	0.15 J	0.14 J	0.23 J	NA	0.18 J	NA
Cadmium	2.5	7.5	4.3	0.48 J	NA	0.95 J	NA	0.37 J	NA	0.65 J	0.86 U	0.89 U	0.84 U	0.30 J	NA	0.67 J	NA
Calcium	NS	NS	NS	1780	NA	1750	NA	1030 J	NA	1700	262 J	504 J	3990	1340	NA	2000	NA
Chromium	30	NS	180	42.0	5.6	52.6	6.4	15.6	11.1	36.3	5.7	6.4	4.8	31.6	18.3	42.2	11.3 F1
Cobalt	NS	NS	NS	6.0 J	NA	12.5 U	NA	4.9 J	NA	6.0 J	1.5 J	11.1 U	2.7 J	1.4 J	NA	3.4 J	NA
Copper	50	1720	270	6.5	NA	7.0	NA	8.4	NA	7.3	3.4 J	4.0 J	5.5	5.0 J	NA	6.7	NA
Iron	NS	NS	NS	7380	NA	6110	NA	6430	NA	8130	4720	5830	4450	7470	NA	5860	NA
Lead	63	450	400	32.2	NA	28.1	NA	19.1	NA	34.3	2.7	13.8	13.1	22.0	NA	41.6	NA
Magnesium	NS	NS	NS	561 J	NA	536 J	NA	346 J	NA	565 J	210 J	494 J	1870	708 J	NA	434 J	NA
Manganese	1600	2000	2000	622	NA	166	NA	638	NA	285	38.7	119	462	127	NA	558	NA
Nickel	30	130	310	5.1 J	NA	3.4 J	NA	4.7 J	NA	4.3 J	3.1 J	2.9 J	3.7 J	3.9 J	NA	4.4 J	NA
Potassium	NS	NS	NS	135 J	NA	108 J	NA	88.7 J	NA	153 J	1070 U	105 J	83.8 J	214 J	NA	106 J	NA
Selenium	3.9	4	180	4.7 U	NA	5.0 U	NA	5.0 U	NA	4.4 U	4.3 U	4.4 U	4.2 U	4.6 U	NA	4.5 U	NA
Silver	2	8.3	180	2.3 U	NA	2.5 U	NA	2.5 U	NA	2.2 U	2.1 U	2.2 U	2.1 U	2.3 U	NA	2.2 U	NA
Sodium	NS	NS	NS	1170 U	NA	1250 U	NA	1260 U	NA	1100 U	1070 U	1110 U	1050 U	1150 U	NA	1120 U	NA
Thallium	NS	NS	NS	4.7 U	NA	5.0 U	NA	5.0 U	NA	4.4 U	4.3 U	4.4 U	4.2 U	4.6 U	NA	4.5 U	NA
Vanadium	NS	NS	NS	13.2	NA	11.5 J	NA	13.1	NA	12.2	7.0 J	10.8 J	9.1 J	14.4	NA	11.9	NA
Zinc	109	2480	10000	45.0	NA	47.5	NA	30.5	NA	49.5	10.4	17.2	16.2	30.4	NA	52.6	NA
Mercury by USEPA Method 7471B (mg/kg)																	
Mercury	0.18	NS[3]	5.8[3]	4.8	0.24	9.5	0.046	2.0	0.52	2.3	0.079	0.042	0.13	2.0	0.21	3.9	0.66
Herbicides by USEPA Method 8151B (mg/kg)																	
2,4,5-T	NS	1.9	NS	0.040 U	NA	0.043 U	NA	0.042 U	NA	0.037 U	0.036 U	0.037 U	0.036 U	0.039 U	NA	0.038 U	NA
2,4-D	NS	0.5	NS	0.040 U	NA	0.043 U	NA	0.042 U	NA	0.037 U	0.036 U	0.037 U	0.036 U	0.039 U	NA	0.038 U	NA
Silvex (2,4,5-TP)	3.8	3.8	100	0.040 U	NA	0.043 U	NA	0.042 U	NA	0.037 U	0.036 U	0.037 U	0.036 U	0.039 U	NA	0.038 U	NA
Pesticides by USEPA Method 8081B (mg/kg)																	
4,4'-DDD	0.0033	14	13	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
4,4'-DDE	0.0033	17	8.9	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.015	0.0072 U	0.039 U	NA	0.0047 J	NA
4,4'-DDT	0.0033	136	7.9	0.0080 U	NA	0.017	NA	0.042 U	NA	0.0075 U	0.0072 U	0.016	0.0072 U	0.039 U	NA	0.0076 U	NA
Aldrin	0.005	0.19	0.097	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
alpha-BHC	0.02	0.02	0.48	0.0024 U	NA	0.0026 U	NA	0.013 U	NA	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.012 U	NA	0.0023 U	NA
beta-BHC	0.036	0.09	0.36	0.0024 U	NA	0.0026 U	NA	0.013 U	NA	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.012 U	NA	0.0023 U	NA
Chlordane (technical)	0.094	2.9	4.2	1.0	0.11	0.92	0.082 U	3.1	0.91	0.70	0.098	0.075 U	0.16	2.0	0.24	0.31	0.46
delta-BHC	0.04	0.25	100	0.0024 U	NA	0.0026 U	NA	0.013 U	NA	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.012 U	NA	0.0023 U	NA
Dieldrin	0.005	0.1	0.2	0.0024 U	NA	0.0026 U	NA	0.013 U	NA	0.0080	0.0021 U	0.0022 U	0.0021 U	0.012 U	NA	0.0023 U	NA
Endosulfan I	2.4	102	24	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Endosulfan II	2.4	102	24	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Endosulfan sulfate	2.4	1000	24	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Endrin	0.014	0.06	11	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Endrin aldehyde	NS	NS	NS	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Endrin ketone	NS	NS	NS	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
gamma-BHC (Lindane)	0.1	0.1	1.3	0.0024 U	NA	0.0026 U	NA	0.013 U	NA	0.0022 U	0.0021 U	0.0022 U	0.0021 U	0.012 U	NA	0.0023 U	NA
Heptachlor	0.042	0.38	2.1	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Heptachlor epoxide	NS	0.02	NS	0.26	0.015	0.21	0.012	0.25	0.072	0.20	0.017	0.0075 U	0.0034 J	0.16	0.031	0.052	0.1
Methoxychlor	NS	900	NS	0.0080 U	NA	0.0087 U	NA	0.042 U	NA	0.0075 U	0.0072 U	0.0075 U	0.0072 U	0.039 U	NA	0.0076 U	NA
Toxaphene	NS	NS	NS	0.080 U	NA	0.087 U	NA	0.42 U	NA	0.075 U	0.072 U	0.075 U	0.072 U	0.39 U	NA	0.076 U	NA

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricte
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objec
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the co
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 4
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Us
Highlighted text denotes concentrations exceeding NYSDEC Protection of G
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Resi

Table 10

Shallow Soil Sample Analytical Results - Fairways (VOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Fairway SS-022 0 - 3" 460-156630-15 05/21/18	
Volatile Organic Compounds by USEPA method 8260C (mg/Kg)					
1,1,1-Trichloroethane	0.68	0.68	100	0.0010	U
1,1,2,2-Tetrachloroethane	NS	0.6	NS	0.0010	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	6	NS	0.0010	U
1,1,2-Trichloroethane	NS	NS	NS	0.0010	U
1,1-Dichloroethane	0.27	0.27	26	0.0010	U
1,1-Dichloroethene	0.33	0.33	100	0.0010	U
1,2,3-Trichlorobenzene	NS	NS	NS	0.0010	U
1,2,4-Trichlorobenzene	NS	3.4	NS	0.0010	U
1,2-Dibromo-3-Chloropropane	NS	NS	NS	0.0010	U
1,2-Dichlorobenzene	1.1	1.1	100	0.0010	U
1,2-Dichloroethane	0.02	0.02	3.1	0.0010	U
1,2-Dichloropropane	NS	NS	NS	0.0010	U
1,3-Dichlorobenzene	2.4	2.4	49	0.0010	U
1,4-Dichlorobenzene	1.8	1.8	13	0.0010	U
1,4-Dioxane	0.1	0.1	13	0.021	U
2-Butanone (MEK)	0.12	0.3	100	0.0052	U
2-Hexanone	NS	NS	NS	0.0052	U
4-Methyl-2-pentanone (MIBK)	NS	1	NS	0.0052	U
Acetone	0.05	0.05	100	0.0052	U
Benzene	0.06	0.06	4.8	0.0010	U
Bromoform	NS	NS	NS	0.0010	U
Bromomethane	NS	NS	NS	0.0010	U
Carbon disulfide	NS	2.7	NS	0.0010	U
Carbon tetrachloride	0.76	0.76	2.4	0.0010	U
Chlorobenzene	1.1	1.1	100	0.0010	U
Chlorobromomethane	NS	NS	NS	0.0010	U
Chlorodibromomethane	NS	NS	NS	0.0010	U
Chloroethane	NS	1.9	NS	0.0010	U
Chloroform	0.37	0.37	49	0.0010	U
Chloromethane	NS	NS	NS	0.0010	U
cis-1,2-Dichloroethene	0.25	0.25	100	0.0010	U
cis-1,3-Dichloropropene	NS	NS	NS	0.0010	U
Cyclohexane	NS	NS	NS	0.0010	U
Dichlorobromomethane	NS	NS	NS	0.0010	U
Dichlorodifluoromethane	NS	NS	NS	0.0010	U
Ethylbenzene	1	1	41	0.0010	U
Ethylene Dibromide	NS	NS	NS	0.0010	U
Isopropylbenzene	NS	2.3	NS	0.0010	U
Methyl acetate	NS	NS	NS	0.0052	U
Methyl tert-butyl ether	0.93	0.93	100	0.0010	U
Methylcyclohexane	NS	NS	NS	0.0010	U
Methylene Chloride	0.05	0.05	100	0.00047	J B
m-Xylene & p-Xylene	0.26	NS	NS	0.0010	U
o-Xylene	0.26	NS	NS	0.0010	U
Styrene	NS	NS	NS	0.0010	U
Tetrachloroethene	1.3	1.3	19	0.0010	U
Toluene	0.7	0.7	100	0.0010	U
trans-1,2-Dichloroethene	0.19	0.19	100	0.0010	U
trans-1,3-Dichloropropene	NS	NS	NS	0.0010	U
Trichloroethene	0.47	0.47	21	0.0010	U
Trichlorofluoromethane	NS	NS	NS	0.0010	U
Vinyl chloride	0.02	0.02	0.9	0.0010	U
Total Conc	NS	NS	NS	0.00047	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 11

Shallow Soil Sample Analytical Results - Fairways (SVOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Fairway SS-022 0 - 3" 460-156630-15 05/21/18	
Semi-Volatile Organic Compounds by USEPA method 8270D (mg/Kg)					
1,1'-Biphenyl	NS	NS	NS	0.3900	U
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	0.3900	U
2,2'-oxybis[1-chloropropane]	NS	NS	NS	0.3900	U
2,3,4,6-Tetrachlorophenol	NS	NS	NS	0.390	U
2,4,5-Trichlorophenol	NS	0.1	NS	0.390	U
2,4,6-Trichlorophenol	NS	NS	NS	0.160	U
2,4-Dichlorophenol	NS	0.4	NS	0.1600	U
2,4-Dimethylphenol	NS	NS	NS	0.390	U
2,4-Dinitrophenol	NS	0.2	NS	0.32	U
2,4-Dinitrotoluene	NS	NS	NS	0.08	U
2,6-Dinitrotoluene	NS	NS	NS	0.08	U
2-Chloronaphthalene	NS	NS	NS	0.39	U
2-Chlorophenol	NS	NS	NS	0.39	U
2-Methylnaphthalene	NS	36.4	NS	0.39	U
2-Methylphenol	0.33	0.33	100	0.39	U
2-Nitroaniline	NS	0.4	NS	0.39	U
2-Nitrophenol	NS	0.3	NS	0.39	U
3,3'-Dichlorobenzidine	NS	NS	NS	0.16	U
3-Nitroaniline	NS	0.5	NS	0.39	U
4,6-Dinitro-2-methylphenol	NS	NS	NS	0.32	U
4-Bromophenyl phenyl ether	NS	NS	NS	0.39	U
4-Chloro-3-methylphenol	NS	NS	NS	0.39	U
4-Chloroaniline	NS	0.22	NS	0.39	U
4-Chlorophenyl phenyl ether	NS	NS	NS	0.39	U
4-Methylphenol	0.33	0.33	100	0.39	U
4-Nitroaniline	NS	NS	NS	0.39	U
4-Nitrophenol	NS	0.1	NS	0.8	U
Acenaphthene	20	98	100	0.39	U
Acenaphthylene	100	107	100	0.39	U
Acetophenone	NS	NS	NS	0.39	U
Anthracene	100	1000	100	0.053	J
Atrazine	NS	NS	NS	0.16	U
Benzaldehyde	NS	NS	NS	0.021	J
Benzo[a]anthracene	1	1	1	0.49	
Benzo[a]pyrene	1	22	1	0.56	
Benzo[b]fluoranthene	1	1.7	1	0.8	
Benzo[g,h,i]perylene	100	1000	100	0.33	J
Benzo[k]fluoranthene	0.8	1.7	3.9	0.039	U
Bis(2-chloroethoxy)methane	NS	NS	NS	0.39	U
Bis(2-chloroethyl)ether	NS	NS	NS	0.039	U
Bis(2-ethylhexyl) phthalate	NS	435	NS	0.39	U
Butyl benzyl phthalate	NS	122	NS	0.39	U
Caprolactam	NS	NS	NS	0.39	U
Carbazole	NS	NS	NS	0.058	J
Chrysene	1	1	3.9	0.65	
Dibenz(a,h)anthracene	0.33	1000	0.33	0.12	
Dibenzofuran	7	6.2	59	0.39	U
Diethyl phthalate	NS	7.1	NS	0.39	U
Dimethyl phthalate	NS	27	NS	0.39	U
Di-n-butyl phthalate	NS	8.1	NS	0.39	U
Di-n-octyl phthalate	NS	120	NS	0.39	U
Fluoranthene	100	1000	100	0.71	
Fluorene	30	386	100	0.39	U
Hexachlorobenzene	0.33	1.4	1.2	0.039	U
Hexachlorobutadiene	NS	NS	NS	0.08	U
Hexachlorocyclopentadiene	NS	NS	NS	0.39	U
Hexachloroethane	NS	NS	NS	0.039	U
Indeno[1,2,3-cd]pyrene	0.5	8.2	0.5	0.37	
Isophorone	NS	4.4	NS	0.16	U
Naphthalene	12	12	100	0.39	U
Nitrobenzene	NS	0.17	NS	0.039	U
N-Nitrosodi-n-propylamine	NS	NS	NS	0.039	U
N-Nitrosodiphenylamine	NS	NS	NS	0.39	U
Pentachlorophenol	0.8	0.8	6.7	0.32	U
Phenanthrene	100	1000	100	0.27	J
Phenol	0.33	0.33	100	0.39	U
Pyrene	100	1000	100	0.72	
Total Conc	NS	NS	NS	5.152	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Ta
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has beer
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 12

Shallow Soil Sample Analytical Results - Fairways (PCBs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Fairway SS-022 0 - 3" 460-156630-15 05/21/18	
Polychlorinated biphenyls by USEPA method 8082A (mg/Kg)					
Aroclor 1016	NS	NS	NS	0.0800	U
Aroclor 1221	NS	NS	NS	0.0800	U
Aroclor 1232	NS	NS	NS	0.0800	U
Aroclor 1242	NS	NS	NS	0.0800	U
Aroclor 1248	NS	NS	NS	0.0800	U
Aroclor 1254	NS	NS	NS	0.0800	U
Aroclor 1260	NS	NS	NS	0.0800	U
Aroclor 1268	NS	NS	NS	0.0800	U
Aroclor-1262	NS	NS	NS	0.0800	U
Polychlorinated biphenyls, Total	0.1	3.2	1	0.0800	U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 3
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate valu
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been repo
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 13

Shallow Soil Sample Analytical Results - Driving Range (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Driving Range SS-041 0 - 3" 460-156722-32 05/22/18		Driving Range SS-041 18 - 24" 460-156722-33 05/22/18	
Metals by USEPA Method 6010C (mg/kg)							
Aluminum	NS	NS	NS	1590		3450	
Antimony	NS	NS	NS	4.7	U	4.5	U
Arsenic	13	16	16	1.1	J	3.4	U
Barium	350	820	400	6.6	J	4.2	J
Beryllium	7.2	47	72	0.068	J	0.10	J
Cadmium	2.5	7.5	4.3	0.93	U	0.90	U
Calcium	NS	NS	NS	179	J	1130	U
Chromium	30	NS	180	4.5		4.1	
Cobalt	NS	NS	NS	11.7	U	11.3	U
Copper	50	1720	270	3.0	J	2.5	J
Iron	NS	NS	NS	2780		4740	
Lead	63	450	400	16.4		2.6	
Magnesium	NS	NS	NS	157	J	138	J
Manganese	1600	2000	2000	56.7		27.6	
Nickel	30	130	310	1.1	J	2.4	J
Potassium	NS	NS	NS	1170	U	1130	U
Selenium	3.9	4	180	4.7	U	4.5	U
Silver	2	8.3	180	2.3	U	2.3	U
Sodium	NS	NS	NS	1170	U	1130	U
Thallium	NS	NS	NS	4.7	U	4.5	U
Vanadium	NS	NS	NS	6.5	J	7.4	J
Zinc	109	2480	10000	8.5		9.3	
Mercury by USEPA Method 7471B (mg/kg)							
Mercury	0.18	NS[3]	5.8[3]	0.86		0.073	
Herbicides by USEPA Method 8151B (mg/kg)							
2,4,5-T	NS	1.9	NS	0.040	U	0.037	U
2,4-D	NS	0.5	NS	0.040	U	0.037	U
Silvex (2,4,5-TP)	3.8	3.8	100	0.040	U	0.037	U
Pesticides by USEPA Method 8081B (mg/kg)							
4,4'-DDD	0.0033	14	13	0.0081	U	0.0075	U
4,4'-DDE	0.0033	17	8.9	0.0081	U	0.0075	U
4,4'-DDT	0.0033	136	7.9	0.0081	U	0.0075	U
Aldrin	0.005	0.19	0.097	0.0081	U	0.0075	U
alpha-BHC	0.02	0.02	0.48	0.0024	U	0.0023	U
beta-BHC	0.036	0.09	0.36	0.0024	U	0.0023	U
Chlordane (technical)	0.094	2.9	4.2	0.081	U	0.075	U
delta-BHC	0.04	0.25	100	0.0024	U	0.0023	U
Dieldrin	0.005	0.1	0.2	0.0024	U	0.0023	U
Endosulfan I	2.4	102	24	0.0081	U	0.0075	U
Endosulfan II	2.4	102	24	0.0081	U	0.0075	U
Endosulfan sulfate	2.4	1000	24	0.0081	U	0.0075	U
Endrin	0.014	0.06	11	0.0081	U	0.0075	U
Endrin aldehyde	NS	NS	NS	0.0081	U	0.0075	U
Endrin ketone	NS	NS	NS	0.0081	U	0.0075	U
gamma-BHC (Lindane)	0.1	0.1	1.3	0.0024	U	0.0023	U
Heptachlor	0.042	0.38	2.1	0.0081	U	0.0075	U
Heptachlor epoxide	NS	0.02	NS	0.0081	U	0.0075	U
Methoxychlor	NS	900	NS	0.0081	U	0.0075	U
Toxaphene	NS	NS	NS	0.081	U	0.075	U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 14

Shallow Soil Sample Analytical Results - Rough (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Rough	Rough	Rough	Rough	Rough	Rough	Rough	Rough	Rough	Rough	Rough	Rough
Sample Location ID:				SS-003	SS-006	SS-006	SS-016	SS-017	SS-017	SS-020	SS-032	SS-037	SS-040	SS-043	SS-043
Sample Depth:				0 - 3"	0 - 3"	18 - 24"	0 - 3"	0 - 3"	18 - 24"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	18 - 24"
Laboratory ID:				460-156541-3	460-156541-7	460-156722-60	460-156630-7	460-156630-8	460-156630-9	460-156630-12	460-156722-10	460-156722-17	460-156722-31	460-156722-35	460-156722-36
Sampling Date:				05/18/2018	05/18/2018	05/22/18	05/21/18	05/21/18	05/21/18	05/21/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18
Metals by USEPA Method 6010C (mg/kg)															
Aluminum	NS	NS	NS	5900	2660	NA	5880	6380	1820	1600	5210	3550	2230	1980	3350
Antimony	NS	NS	NS	0.77 J	0.57 J	NA	5.4 U	4.7 U	4.6 U	4.5 U	5.3 U	4.5 U	4.5 U	4.4 U	4.2 U
Arsenic	13	16	16	2.6 J	0.86 J	NA	2.8 J	1.6 J	1.5 J	2.1 J	2.9 J	3.8	1.7 J	1.7 J	3.2 U
Barium	350	820	400	11.9 J	10.9 J	NA	9.5 J	9.5 J	17.1 J	14.0 J	355	12.1 J	8.3 J	4.0 J	3.5 J
Beryllium	7.2	47	72	0.058 U	0.053 U	NA	0.16 J	0.18 J	0.14 J	0.11 J	0.64	0.14 J	0.083 J	0.060 J	0.090 J
Cadmium	2.5	7.5	4.3	0.15 U	1.0	NA	1.1 U	1.1 U	0.94 U	0.95 U	1.1 U	0.89 U	0.90 U	0.87 U	0.84 U
Calcium	NS	NS	NS	534 J	695 J	NA	445 J	441 J	176 J	600 J	497 J	774 J	319 J	129 J	1050 U
Chromium	30	NS	180	6.5	14.2	NA	7.9	6.5	7.0	10.6	7.8	5.8	3.9	4.1	5.0
Cobalt	NS	NS	NS	1.4 U	1.3 U	NA	14.3 U	13.4 U	11.8 U	2.6 J	6.0 J	11.1 U	11.2 U	1.9 J	2.8 J
Copper	50	1720	270	5.5 J	8.6	NA	4.8 J	2.8 J	1.7 J	4.9 J	10.4	5.7	2.9 J	4.1 J	3.8 J
Iron	NS	NS	NS	8060	4730	NA	9140	6920	6790	10700	6700	5790	4180	4340	4750
Lead	63	450	400	22.7	7.7	NA	22.3	17.3	6.0	16.8	24.6	27.6	20.6	19.9	5.1
Magnesium	NS	NS	NS	552 J	454 J	NA	606 J	470 J	537 J	1070 J	361 J	364 J	209 J	95.6 J	113 J
Manganese	1600	2000	2000	27.1	143	NA	57.3	29.2	31.7	75.8	1070	113	215	189	169
Nickel	30	130	310	3.8 J	2.6 J	NA	4.0 J	2.9 J	3.3 J	6.1 J	5.9 J	2.5 J	1.4 J	1.6 J	3.6 J
Potassium	NS	NS	NS	257 J	210 J	NA	209 J	144 J	130 J	232 J	109 J	146 J	69.3 J	1090 U	1050 U
Selenium	3.9	4	180	1.5 U	1.4 U	NA	5.7 U	5.4 U	4.7 U	4.7 U	5.3 U	4.5 U	4.5 U	4.4 U	4.2 U
Silver	2	8.3	180	0.38 U	0.35 U	NA	2.9 U	2.7 U	2.4 U	2.4 U	2.6 U	2.2 U	2.2 U	2.2 U	2.1 U
Sodium	NS	NS	NS	96.3 U	88.2 U	NA	1430 U	1340 U	1180 U	1180 U	1320 U	1110 U	1120 U	1090 U	1050 U
Thallium	NS	NS	NS	1.5 U	1.4 U	NA	5.7 U	5.4 U	4.7 U	4.7 U	5.3 U	4.5 U	4.5 U	4.4 U	4.2 U
Vanadium	NS	NS	NS	16.6	7.8 J	NA	17.4	13.1 J	11.3 J	18.6	17.9	12.1	9.4 J	11.0	7.2 J
Zinc	109	2480	10000	13.7	37.2	NA	18.5	12.9	8.7	20.1	27.6	17.5	12.4	8.0	10.0
Mercury by USEPA Method 7471B (mg/kg)															
Mercury	0.18	NS[3]	5.8[3]	0.23	3.0	0.25	0.046	0.14	0.026	0.051	0.088	0.18	0.037	0.042	0.033
Herbicides by USEPA Method 8151B (mg/kg)															
2,4,5-T	NS	1.9	NS	0.0089 U	0.0083 U	NA	0.048 U	0.046 U	0.040 U	0.041 U	0.044 U	0.038 U	0.038 U	0.037 U	0.035 U
2,4-D	NS	0.5	NS	0.015 U	0.014 U	NA	0.048 U	0.046 U	0.040 U	0.041 U	0.044 U	0.038 U	0.038 U	0.037 U	0.035 U
Silvex (2,4,5-TP)	3.8	3.8	100	0.0044 U	0.0041 U	NA	0.048 U	0.046 U	0.040 U	0.041 U	0.044 U	0.038 U	0.038 U	0.037 U	0.035 U
Pesticides by USEPA Method 8081B (mg/kg)															
4,4'-DDD	0.0033	14	13	0.0014 U	0.0027 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
4,4'-DDE	0.0033	17	8.9	0.0026 J	0.0019 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
4,4'-DDT	0.0033	136	7.9	0.0016 U	0.0029 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0038 J	0.0074 U	0.0071 U
Aldrin	0.005	0.19	0.097	0.0013 U	0.0024 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
alpha-BHC	0.02	0.02	0.48	0.00086 U	0.0016 U	NA	0.0029 U	0.0028 U	0.0024 U	0.0025 U	0.0027 U	0.0023 U	0.0023 U	0.0022 U	0.0021 U
beta-BHC	0.036	0.09	0.36	0.00095 U	0.0018 U	NA	0.0029 U	0.0028 U	0.0024 U	0.0025 U	0.0027 U	0.0023 U	0.0023 U	0.0022 U	0.0021 U
Chlordane (technical)	0.094	2.9	4.2	0.020 U	1.7	0.15 P	0.097 U	0.092 U	0.081 U	0.082 U	0.089 U	0.076 U	0.076 U	0.074 U	0.071 U
delta-BHC	0.04	0.25	100	0.00052 U	0.00097 U	NA	0.0029 U	0.0028 U	0.0024 U	0.0025 U	0.0027 U	0.0023 U	0.0023 U	0.0022 U	0.0021 U
Dieldrin	0.005	0.1	0.2	0.0011 U	0.0020 U	NA	0.0029 U	0.0028 U	0.0024 U	0.0025 U	0.0027 U	0.0023 U	0.0023 U	0.0022 U	0.0021 U
Endosulfan I	2.4	102	24	0.0013 U	0.0024 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Endosulfan II	2.4	102	24	0.0022 U	0.0041 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Endosulfan sulfate	2.4	1000	24	0.0011 U	0.0020 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Endrin	0.014	0.06	11	0.0012 U	0.0023 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Endrin aldehyde	NS	NS	NS	0.0020 U	0.0037 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Endrin ketone	NS	NS	NS	0.0016 U	0.0031 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
gamma-BHC (Lindane)	0.1	0.1	1.3	0.00078 U	0.0015 U	NA	0.0029 U	0.0028 U	0.0024 U	0.0025 U	0.0027 U	0.0023 U	0.0023 U	0.0022 U	0.0021 U
Heptachlor	0.042	0.38	2.1	0.0010 U	0.0019 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Heptachlor epoxide	NS	0.02	NS	0.0013 U	0.053	0.021	0.0097 U	0.0061 J	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.015	0.0076	0.0071 U
Methoxychlor	NS	900	NS	0.0019 U	0.0036 U	NA	0.0097 U	0.0092 U	0.0081 U	0.0082 U	0.0089 U	0.0076 U	0.0076 U	0.0074 U	0.0071 U
Toxaphene	NS	NS	NS	0.031 U	0.057 U	NA	0.097 U	0.092 U	0.081 U	0.082 U	0.089 U	0.076 U	0.076 U	0.074 U	0.071 U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-1 and 7-2, September 2006
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 15

Shallow Soil Sample Analytical Results - Woods (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Location Type:	NYSDEC	NYSDEC	NYSDEC	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods	Woods
Sample Location ID:	Unrestricted	Groundwater	Restricted	SS-011	SS-011	SS-013	SS-024	SS-029	SS-030	SS-031	SS-031	SS-045	SS-046	SS-047	SS-048	SS-049	SS-050	SS-051	SS-053	SS-055	SS-056	SS-058
Sample Depth:	Use Soil	Protection Soil	Residential Soil	0 - 3"	18 - 24"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	18 - 24"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"	0 - 3"
Laboratory ID:	Cleanup	Cleanup	Cleanup	460-156630-1	460-156630-2	460-156630-4	460-156630-18	460-156722-6	460-156722-7	460-156722-8	460-156722-9	460-156722-38	460-158175-13	460-158175-14	460-158175-19	460-158175-2	460-158175-3	460-158175-6	460-158175-21	460-158175-30	460-158175-31	460-158175-38
Sampling Date:	Objective[1]	Objective[2]	Objective[2]	05/21/18	05/21/18	05/21/18	05/21/18	05/22/18	05/22/18	05/22/18	05/22/18	05/22/18	06/12/18	06/12/18	06/12/18	06/12/18	06/12/18	06/12/18	06/12/18	06/12/18	06/12/18	06/12/18
Metals by USEPA Method 6010C (mg/kg)																					
Aluminum	NS	NS	NS	3580	7290	4660	2540	3620	1650	1230	5390	2010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NS	NS	NS	4.3 U	6.4 U	4.8 U	0.5 U	4.7 U	5.1 U	6.5 U	4.6 U	4.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	16	2.4 J	3.6 J	2.4 J	0.93 J	1.5 J	2.1 J	4.8 U	0.94 J	1.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	820	400	26 J	18.1 J	16.6 J	4.8 J	15.3 J	8.1 J	13.6 J	7 J	11.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	47	72	0.22 J	0.23 J	0.17 J	0.095 J	0.17 J	0.091 J	0.65 U	0.13 J	0.096 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	7.5	4.3	0.86 U	0.86 U	1.1 U	0.12 U	0.93 U	1 U	0.22 J	0.93 U	0.97 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NS	NS	NS	15900	7780 F1	192 J	128 J	207 J	428 J	885 J	1160 U	360 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	30	NS	180	9.4	7	9.2	3.1	6.4	2.9	2 J	5.3	4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NS	NS	NS	2.1 J	2 J	14.2 U	4.5 J	1.3 J	12.7 U	16.2 U	11.6 U	12.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	1720	270	11.9	9	3.5 J	3.1 J	13.3	4.7 J	4.2 J	2 J	5.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NS	NS	NS	6540	5860	8510	3970	5800	3790	1870	7180	4590	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	450	400	38.4	27.6	11.7	3.3	11.7	22.2	13.9	7.6	44.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NS	NS	NS	2990	1250	688 J	236 J	588 J	208 J	209 J	336 J	192 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1600	2000	2000	89.4	135 F1	36.6	260	51	44.4	25.1	19	42.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	130	310	6.7 J	4.7 J	4.2 J	3.4 J	3.2 J	1.8 J	1.7 J	2 J	3.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NS	NS	NS	348 J	269 J	211 J	68.6 J	164 J	130 J	149 J	145 J	110 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	4	180	4.3 U	4.3 U	5.7 U	1.3 U	4.7 U	5.1 U	6.5 U	4.6 U	4.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	8.3	180	2.2 U	2.1 U	2.8 U	0.32 U	2.3 U	2.5 U	3.2 U	2.3 U	2.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NS	NS	NS	1080 U	1070 U	1420 U	80.2 U	1170 U	1270 U	1620 U	1160 U	1210 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NS	NS	NS	4.3 U	4.3 U	5.7 U	1.2 U	4.7 U	5.1 U	6.5 U	4.6 U	4.8 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NS	NS	NS	12.9	10.4 J	17.3	5.3 J	10.1 J	11.9 J	6.6 J	12.5	13.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	2480	10000	44.6	31.7	13.5	9.6	49.9	7.5 J	16.8	5.6 J	20.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury by USEPA Method 7471B (mg/kg)																					
Mercury	0.18	NS[3]	5.8[3]	0.28	0.12	0.05	0.2	0.043	0.11	0.06	0.024	0.078	0.19	0.053	0.14	0.040	0.35	0.12	0.016 U	0.19	0.067	0.17
Herbicides by USEPA Method 8151B (mg/kg)																					
2,4,5-T	NS	1.9	NS	0.036 U	0.036 U	0.049 U	0.036 U	0.04 U	0.043 U	0.054 U	0.04 U	0.041 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-D	NS	0.5	NS	0.036 U	0.036 U	0.049 U	0.036 U	0.04 U	0.043 U	0.054 U	0.04 U	0.041 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silvex (2,4,5-TP)	3.8	3.8	100	0.036 U	0.036 U	0.049 U	0.036 U	0.04 U	0.043 U	0.054 U	0.04 U	0.041 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides by USEPA Method 8081B (mg/kg)																					
4,4'-DDD	0.0033	14	13	0.0073 U	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
4,4'-DDE	0.0033	17	8.9	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.013	0.0087 U	0.0096 J	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
4,4'-DDT	0.0033	136	7.9	0.0039 J F1	0.059	0.0098 U	0.0072 U	0.0067 J	0.0051 J	0.012	0.008 U	0.0083 U	0.008	0.0044 J	0.005 J	0.0078 U	0.0077 U	0.018	0.007 U	0.0049 J	0.011	0.0075 U
Aldrin	0.005	0.19	0.097	0.0073 U	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
alpha-BHC	0.02	0.02	0.48	0.0022 U	0.0021 U	0.0029 U	0.0021 U	0.0024 U	0.0026 U	0.0033 U	0.0024 U	0.0025 U	0.0022 U	0.0022 U	0.0023 U	0.0023 U	0.0023 U	0.0026 U	0.0021 U	0.0024 U	0.0023 U	0.0022 U
beta-BHC	0.036	0.09	0.36	0.0022 U F1	0.0021 U	0.0029 U	0.0021 U	0.0024 U	0.0026 U	0.0033 U	0.0024 U	0.0025 U	0.0022 U	0.0022 U	0.0023 U	0.0023 U	0.0023 U	0.0026 U	0.0021 U	0.0024 U	0.0023 U	0.0022 U
Chlordane (technical)	0.094	2.9	4.2	0.11	0.28	0.098 U	0.072 U	0.079 U	0.087 U	0.11 U	0.08 U	0.083 U	0.074 U	0.073 U	0.078 U	0.078 U	0.077 U	0.086 U	0.07 U	0.079 U	0.079 U	0.075 U
delta-BHC	0.04	0.25	100	0.0022 U	0.0021 U	0.0029 U	0.0021 U	0.0024 U	0.0026 U	0.0033 U	0.0024 U	0.0025 U	0.0022 U	0.0022 U	0.0023 U	0.0023 U	0.0023 U	0.0026 U	0.0021 U	0.0024 U	0.0023 U	0.0022 U
Dieldrin	0.005	0.1	0.2	0.0076 F1	0.0021 U	0.0029 U	0.0021 U	0.0024 U	0.0026 U	0.0033 U	0.0024 U	0.0025 U	0.0022 U	0.0022 U	0.0023 U	0.0023 U	0.0023 U	0.0026 U	0.0021 U	0.0024 U	0.0023 U	0.0022 U
Endosulfan I	2.4	102	24	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Endosulfan II	2.4	102	24	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Endosulfan sulfate	2.4	1000	24	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Endrin	0.014	0.06	11	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Endrin aldehyde	NS	NS	NS	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Endrin ketone	NS	NS	NS	0.0073 U F1	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
gamma-BHC (Lindane)	0.1	0.1	1.3	0.0022 U	0.0021 U	0.0029 U	0.0021 U	0.0024 U	0.0026 U	0.0033 U	0.0024 U	0.0025 U	0.0022 U	0.0022 U	0.0023 U	0.0023 U	0.0023 U	0.0026 U	0.0021 U	0.0024 U	0.0023 U	0.0022 U
Heptachlor	0.042	0.38	2.1	0.0073 U	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Heptachlor epoxide	NS	0.02	NS	0.0029 J F1	0.004 J	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0027 J	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Methoxychlor	NS	900	NS	0.0073 U	0.0072 U	0.0098 U	0.0072 U	0.0079 U	0.0087 U	0.011 U	0.008 U	0.0083 U	0.0074 U	0.0073 U	0.0078 U	0.0078 U	0.0077 U	0.0086 U	0.007 U	0.0079 U	0.0079 U	0.0075 U
Toxaphene	NS	NS	NS	0.073 U	0.072 U	0.098 U	0.072 U	0.079 U	0.087 U	0.11 U	0.08 U	0.083 U	0.074 U	0.073 U	0.078 U	0.078 U	0.077 U	0.086 U	0.07 U	0.079 U	0.079 U	0.075 U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-1 and 7-2, September 2006
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 16

Shallow Soil Sample Analytical Results - Woods (VOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Woods SS-011 0 - 3" 460-156630-1 05/21/18	Woods SS-011 18" - 24" 460-156630-2 05/21/18	Woods SS-024 0 - 3" 460-156630- 05/21/18
Volatile Organic Compounds by USEPA method 8260C (mg/Kg)						
1,1,1-Trichloroethane	0.68	0.68	100	0.00077 U	0.00088 U	0.00084 U
1,1,2,2-Tetrachloroethane	NS	0.6	NS	0.00077 U *	0.00088 U	0.00084 U
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	6	NS	0.00077 U	0.00088 U	0.00084 U
1,1,2-Trichloroethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
1,1-Dichloroethane	0.27	0.27	26	0.00077 U	0.00088 U	0.00084 U
1,1-Dichloroethene	0.33	0.33	100	0.00077 U	0.00088 U	0.00084 U
1,2,3-Trichlorobenzene	NS	NS	NS	0.00077 U *	0.00088 U	0.00084 U
1,2,4-Trichlorobenzene	NS	3.4	NS	0.00077 U *	0.00088 U	0.00084 U
1,2-Dibromo-3-Chloropropane	NS	NS	NS	0.00077 U *	0.00088 U	0.00084 U
1,2-Dichlorobenzene	1.1	1.1	100	0.00077 U *	0.00088 U	0.00084 U
1,2-Dichloroethane	0.02	0.02	3.1	0.00077 U	0.00088 U	0.00084 U
1,2-Dichloropropane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
1,3-Dichlorobenzene	2.4	2.4	49	0.00077 U *	0.00088 U	0.00084 U
1,4-Dichlorobenzene	1.8	1.8	13	0.00077 U *	0.00088 U	0.00084 U
1,4-Dioxane	0.1	0.1	13	0.015 U	0.018 U	0.017 U
2-Butanone (MEK)	0.12	0.3	100	0.0039 U	0.0044 U	0.0042 U
2-Hexanone	NS	NS	NS	0.0039 U	0.0044 U	0.0042 U
4-Methyl-2-pentanone (MIBK)	NS	1	NS	0.0039 U	0.0044 U	0.0042 U
Acetone	0.05	0.05	100	0.0039 U	0.0054	0.0042 U
Benzene	0.06	0.06	4.8	0.00077 U	0.00088 U	0.00084 U
Bromoform	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Bromomethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Carbon disulfide	NS	2.7	NS	0.00077 U	0.00088 U	0.00084 U
Carbon tetrachloride	0.76	0.76	2.4	0.00077 U	0.00088 U	0.00084 U
Chlorobenzene	1.1	1.1	100	0.00077 U	0.00088 U	0.00084 U
Chlorobromomethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Chlorodibromomethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Chloroethane	NS	1.9	NS	0.00077 U	0.00088 U	0.00084 U
Chloroform	0.37	0.37	49	0.00077 U	0.00088 U	0.00084 U
Chloromethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
cis-1,2-Dichloroethene	0.25	0.25	100	0.00077 U	0.00088 U	0.00084 U
cis-1,3-Dichloropropene	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Cyclohexane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Dichlorobromomethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Dichlorodifluoromethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Ethylbenzene	1	1	41	0.00077 U	0.00088 U	0.00084 U
Ethylene Dibromide	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Isopropylbenzene	NS	2.3	NS	0.00077 U	0.00088 U	0.00084 U
Methyl acetate	NS	NS	NS	0.0039 U	0.0044 U	0.0042 U
Methyl tert-butyl ether	0.93	0.93	100	0.00077 U	0.00088 U	0.00084 U
Methylcyclohexane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Methylene Chloride	0.05	0.05	100	0.00071 J B	0.00083 J B	0.0011 B
m-Xylene & p-Xylene	0.26	NS	NS	0.00023 J	0.00026 J	0.00042 J
o-Xylene	0.26	NS	NS	0.000094 J	0.000096 J	0.00015 J
Styrene	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Tetrachloroethene	1.3	1.3	19	0.00075 J	0.00088 U	0.00084 U
Toluene	0.7	0.7	100	0.00077 U	0.00088 U	0.00084 U
trans-1,2-Dichloroethene	0.19	0.19	100	0.00077 U	0.00088 U	0.00084 U
trans-1,3-Dichloropropene	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Trichloroethene	0.47	0.47	21	0.00077 U	0.00088 U	0.00084 U
Trichlorofluoromethane	NS	NS	NS	0.00077 U	0.00088 U	0.00084 U
Vinyl chloride	0.02	0.02	0.9	0.00077 U	0.00088 U	0.00084 U
Total Conc	NS	NS	NS	0.00178	0.00659	0.00167

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 17

Shallow Soil Sample Analytical Results - Woods (SVOCs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Woods SS-011 0 - 3" 460-156630-1 05/21/18		Woods SS-011 18" - 24" 460-156630-2 05/21/18		Woods SS-024 0 - 3" 460-156630-18 05/21/18	
Semi-Volatile Organic Compounds by USEPA method 8270D (mg/Kg)									
1,1'-Biphenyl	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
2,2'-oxybis[1-chloropropane]	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
2,3,4,6-Tetrachlorophenol	NS	NS	NS	0.36	U	0.350	U	0.3500	U
2,4,5-Trichlorophenol	NS	0.1	NS	0.36	U	0.350	U	0.3500	U
2,4,6-Trichlorophenol	NS	NS	NS	0.14	U	0.140	U	0.1400	U
2,4-Dichlorophenol	NS	0.4	NS	0.14	U	0.1400	U	0.1400	U
2,4-Dimethylphenol	NS	NS	NS	0.36	U	0.350	U	0.3500	U
2,4-Dinitrophenol	NS	0.2	NS	0.29	U	0.29	U	0.2800	U
2,4-Dinitrotoluene	NS	NS	NS	0.073	U	0.072	U	0.0720	U
2,6-Dinitrotoluene	NS	NS	NS	0.073	U	0.072	U	0.072	U
2-Chloronaphthalene	NS	NS	NS	0.36	U	0.350	U	0.350	U
2-Chlorophenol	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
2-Methylnaphthalene	NS	36.4	NS	0.010	J	0.3500	U	0.3500	U
2-Methylphenol	0.33	0.33	100	0.36	U	0.3500	U	0.3500	U
2-Nitroaniline	NS	0.4	NS	0.36	U	0.350	U	0.350	U
2-Nitrophenol	NS	0.3	NS	0.36	U	0.350	U	0.350	U
3,3'-Dichlorobenzidine	NS	NS	NS	0.14	U	0.140	U	0.140	U
3-Nitroaniline	NS	0.5	NS	0.36	U	0.350	U	0.350	U
4,6-Dinitro-2-methylphenol	NS	NS	NS	0.29	U	0.290	U	0.280	U
4-Bromophenyl phenyl ether	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
4-Chloro-3-methylphenol	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
4-Chloroaniline	NS	0.22	NS	0.36	U	0.350	U	0.350	U
4-Chlorophenyl phenyl ether	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
4-Methylphenol	0.33	0.33	100	0.36	U	0.3500	U	0.3500	U
4-Nitroaniline	NS	NS	NS	0.36	U	0.350	U	0.350	U
4-Nitrophenol	NS	0.1	NS	0.73	U	0.720	U	0.720	U
Acenaphthene	20	98	100	0.36	U	0.350	U	0.350	U
Acenaphthylene	100	107	100	0.36	U	0.3500	U	0.3500	U
Acetophenone	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
Anthracene	100	1000	100	0.36	U	0.3500	U	0.3500	U
Atrazine	NS	NS	NS	0.14	U	0.1400	U	0.1400	U
Benzaldehyde	NS	NS	NS	0.36	U	0.350	U	0.350	U
Benzo[a]anthracene	1	1	1	0.16		0.026	J	0.035	U
Benzo[a]pyrene	1	22	1	0.18		0.035	U	0.0350	U
Benzo[b]fluoranthene	1	1.7	1	0.29		0.0350	U	0.0350	U
Benzo[g,h,i]perylene	100	1000	100	0.10	J	0.350	U	0.3500	U
Benzo[k]fluoranthene	0.8	1.7	3.9	0.088		0.0350	U	0.0350	U
Bis(2-chloroethoxy)methane	NS	NS	NS	0.36	U	0.350	U	0.350	U
Bis(2-chloroethyl)ether	NS	NS	NS	0.036	U	0.0350	U	0.0350	U
Bis(2-ethylhexyl) phthalate	NS	435	NS	1.2		0.130	J	0.350	U
Butyl benzyl phthalate	NS	122	NS	0.10	J	0.350	U	0.350	U
Caprolactam	NS	NS	NS	0.11	J	0.350	U	0.350	U
Carbazole	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
Chrysene	1	1	3.9	0.19	J	0.3500	U	0.3500	U
Dibenz(a,h)anthracene	0.33	1000	0.33	0.036	U	0.035	U	0.035	U
Dibenzofuran	7	6.2	59	0.36	U	0.3500	U	0.3500	U
Diethyl phthalate	NS	7.1	NS	0.36	U	0.3500	U	0.3500	U
Dimethyl phthalate	NS	27	NS	0.36	U	0.3500	U	0.3500	U
Di-n-butyl phthalate	NS	8.1	NS	0.36	U	0.350	U	0.350	U
Di-n-octyl phthalate	NS	120	NS	0.36	U	0.350	U	0.350	U
Fluoranthene	100	1000	100	0.32	J	0.0370	J	0.3500	U
Fluorene	30	386	100	0.36	U	0.3500	U	0.3500	U
Hexachlorobenzene	0.33	1.4	1.2	0.036	U	0.0350	U	0.0350	U
Hexachlorobutadiene	NS	NS	NS	0.073	U	0.0720	U	0.0720	U
Hexachlorocyclopentadiene	NS	NS	NS	0.36	U	0.350	U	0.350	U
Hexachloroethane	NS	NS	NS	0.036	U	0.0350	U	0.0350	U
Indeno[1,2,3-cd]pyrene	0.5	8.2	0.5	0.12		0.018	J	0.035	U
Isophorone	NS	4.4	NS	0.14	U	0.1400	U	0.1400	U
Naphthalene	12	12	100	0.013	J	0.3500	U	0.3500	U
Nitrobenzene	NS	0.17	NS	0.036	U	0.0350	U	0.0350	U
N-Nitrosodi-n-propylamine	NS	NS	NS	0.036	U	0.0350	U	0.0350	U
N-Nitrosodiphenylamine	NS	NS	NS	0.36	U	0.3500	U	0.3500	U
Pentachlorophenol	0.8	0.8	6.7	0.29	U	0.290	U	0.280	U
Phenanthrene	100	1000	100	0.16	J	0.0220	J	0.3500	U
Phenol	0.33	0.33	100	0.36	U	0.3500	U	0.3500	U
Pyrene	100	1000	100	0.31	J	0.0360	J	0.3500	U
Total Conc	NS	NS	NS	3.351		0.269		0	

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 18

Shallow Soil Sample Analytical Results - Woods (PCBs)
Island Hills Golf Course, Sayville, NY

Location Type: Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup Objective[2]	NYSDEC Restricted Residential Soil Cleanup Objective[2]	Woods SS-011 0 - 3" 460-156630-1 05/21/18	Woods SS-011 18" - 24" 460-156630-2 05/21/18	Woods SS-024 0 - 3" 460-156630-18 05/21/18
Polychlorinated biphenyls by USEPA method 8082A (mg/Kg)						
Aroclor 1016	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1221	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1232	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1242	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1248	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1254	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1260	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor 1268	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Aroclor-1262	NS	NS	NS	0.0730 U	0.0720 U	0.0720 U
Polychlorinated biphenyls, Total	0.1	3.2	1	0.0730 U	0.0720 U	0.0720 U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 19

Deep Soil Sample Analytical Results (Metals, Pesticides, Herbicides)
Island Hills Golf Course, Sayville, NY

Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup	NYSDEC Restricted Residential Soil Cleanup Objective[2]	SB-001 11' - 13' 460-156390-1 05/17/2018		SB-002 6' - 8' 460-156390-2 05/17/2018		SB-003 8' - 10' 460-156390-3 05/17/2018		SB-004 2' - 4' 460-156390-4 05/17/2018		SB-0004 20' - 22' 460-156390-5 05/17/2018		SB-005 2' - 4' 460-156390-6 05/17/2018	
Metals by USEPA Method 6010C (mg/kg)															
Aluminum	NS	NS	NS	554	F1	732		2,260		2,530		551		1,200	
Antimony	NS	NS	NS	0.46	U	0.53	U	0.50	U	0.49	U	0.49	U	0.47	U
Arsenic	13	16	16	1.0	J	0.81	U	1.2	J	0.76	U	0.75	U	0.73	U
Barium	350	820	400	3.1	U	3.6	U	10.2	J	3.8	J	3.3	U	3.2	U
Beryllium	7.2	47	72	0.073	J	0.072	J	0.19	J	0.15	J	0.080	J	0.068	J
Cadmium	2.5	7.5	4.3	0.11	U	0.13	U	0.12	U	0.12	U	0.12	U	0.12	U
Calcium	NS	NS	NS	97.5	U	112	U	106	U	105	U	104	U	100	U
Chromium	30	NS	180	1.3	J	2.5		6.9		4.8		2.5		3.8	
Cobalt	NS	NS	NS	1.1	U	1.3	U	1.6	J	1.5	J	1.2	U	2.1	J
Copper	50	1720	270	2.1	J	2.4	J	4.9	J	2.6	J	2.8	J	3.2	J
Iron	NS	NS	NS	2,380		2,440		5,610		4,110		2,920		2,940	
Lead	63	450	400	1.5	J	0.91	J	2.7		1.5	J	1.6	J	0.70	J
Magnesium	NS	NS	NS	118	J	92.1	J	507	J	388	J	98.3	J	202	J
Manganese	1600	2000	2,000	18.1		87.2		50.9		54.3		44.1		157	
Nickel	30	130	310	0.73	U	2.1	J	2.4	J	2.4	J	0.88	J	2.6	J
Potassium	NS	NS	NS	56.7	J	58.4	U	129	J	131	J	57.9	J	52.3	U
Selenium	3.9	4	180	1.2	U	1.3	U	1.3	U	1.2	U	1.2	U	1.2	U
Silver	2	8.3	180	0.29	U	0.33	U	0.32	U	0.31	U	0.31	U	0.30	U
Sodium	NS	NS	NS	73.6	U	84.5	U	80.3	U	79.1	U	78.4	U	75.8	U
Thallium	NS	NS	NS	1.1	U	1.3	U	1.2	U	1.2	U	1.2	U	1.2	U
Vanadium	NS	NS	NS	2.0	J	2.8	J	5.7	J	5.8	J	3.0	J	3.0	J
Zinc	109	2480	10,000	2.1	J	4.3	J	7.1		5.1	J	2.9	J	4.8	J
Mercury by USEPA Method 7471B (mg/kg)															
Mercury	0.18	NS[3]	5.8[3]	0.0094	U	0.010	U	0.010	U	0.013	J	0.010	U	0.010	U
Herbicides by USEPA Method 8151B (mg/kg)															
2,4,5-T	NS	1.9	NS	0.0072	U	0.0081	U	0.0077	U	0.0075	U	0.0076	U	0.0072	U
2,4-D	NS	0.5	NS	0.012	U	0.014	U	0.013	U	0.013	U	0.013	U	0.012	U
Silvex (2,4,5-TP)	3.8	3.8	100	0.0035	U	0.0040	U	0.0038	U	0.0037	U	0.0037	U	0.0035	U
Pesticides by USEPA Method 8081B (mg/kg)															
4,4'-DDD	0.0033	14	13	0.0012	U	0.0013	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U
4,4'-DDE	0.0033	17	8.9	0.00081	U	0.00090	U	0.00086	U	0.00083	U	0.00084	U	0.00080	U
4,4'-DDT	0.0033	136	7.9	0.0013	U	0.0014	U	0.0013	U	0.0013	U	0.0013	U	0.0012	U
Aldrin	0.005	0.19	0.097	0.0010	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U
alpha-BHC	0.02	0.02	0.48	0.00070	U	0.00078	U	0.00074	U	0.00072	U	0.00073	U	0.00069	U
beta-BHC	0.036	0.09	0.36	0.00077	U	0.00086	U	0.00082	U	0.00079	U	0.00080	U	0.00076	U
Chlordane (technical)	0.094	NS	NS	0.017	U	0.018	U	0.018	U	0.017	U	0.017	U	0.016	U
delta-BHC	0.04	0.25	100	0.00042	U	0.00047	U	0.00045	U	0.00043	U	0.00044	U	0.00042	U
Dieldrin	0.005	0.1	0.2	0.00089	U	0.00099	U	0.00095	U	0.00092	U	0.00093	U	0.00088	U
Endosulfan I	2.4	102	24	0.0010	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U
Endosulfan II	2.4	102	24	0.0018	U	0.0020	U	0.0019	U	0.0018	U	0.0018	U	0.0017	U
Endosulfan sulfate	2.4	1000	24	0.00086	U	0.00096	U	0.00092	U	0.00089	U	0.00090	U	0.00085	U
Endrin	0.014	0.06	11	0.00098	U	0.0011	U	0.0011	U	0.0010	U	0.0010	U	0.00097	U
Endrin aldehyde	NS	NS	NS	0.0016	U	0.0018	U	0.0017	U	0.0017	U	0.0017	U	0.0016	U
Endrin ketone	NS	NS	NS	0.0013	U	0.0015	U	0.0014	U	0.0014	U	0.0014	U	0.0013	U
gamma-BHC (Lindane)	0.1	0.1	1.3	0.00063	U	0.00071	U	0.00068	U	0.00065	U	0.00066	U	0.00063	U
Heptachlor	0.042	0.38	2.1	0.00081	U	0.00090	U	0.00086	U	0.00083	U	0.00084	U	0.00080	U
Heptachlor epoxide	NS	0.02	NS	0.0010	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U
Methoxychlor	NS	900	NS	0.0016	U	0.0017	U	0.0017	U	0.0016	U	0.0016	U	0.0016	U
Toxaphene	NS	NS	NS	0.025	U	0.028	U	0.026	U	0.026	U	0.026	U	0.025	U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
[3] NYSDEC Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, Tables 5.6-1 and 7-2, September 2006
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 20

Deep Soil Sample Analytical Results -VOCs
Island Hills Golf Course, Sayville, NY

Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup	NYSDEC Restricted Residential Soil Cleanup Objective[2]	SB-001 11' - 13' 460-156390-1 05/17/2018	SB-002 6' - 8' 460-156390-2 05/17/2018	SB-003 8' - 10' 460-156390-3 05/17/2018	SB-004 2' - 4' 460-156390-4 05/17/2018	SB-0004 20' - 22' 460-156390-5 05/17/2018	SB-005 2' - 4' 460-156390-6 05/17/2018
Volatile Organic Compounds by USEPA method 8260C (mg/Kg)									
1,1,1-Trichloroethane	0.68	0.68	100	0.00022 U	0.00021 U	0.00027 U	0.00019 U	0.00023 U	0.00019 U
1,1,2,2-Tetrachloroethane	NS	0.6	NS	0.00020 U	0.00019 U	0.00024 U	0.00018 U	0.00021 U	0.00018 U
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	6	NS	0.00029 U	0.00027 U	0.00034 U	0.00025 U	0.00030 U	0.00025 U
1,1,2-Trichloroethane	NS	NS	NS	0.00017 U	0.00016 U	0.00020 U	0.00015 U	0.00018 U	0.00015 U
1,1-Dichloroethane	0.27	0.27	26	0.00020 U	0.00019 U	0.00024 U	0.00017 U	0.00020 U	0.00017 U
1,1-Dichloroethene	0.33	0.33	100	0.00021 U	0.00020 U	0.00026 U	0.00019 U	0.00022 U	0.00019 U
1,2,3-Trichlorobenzene	NS	NS	NS	0.00017 U	0.00016 U	0.00021 U	0.00015 U	0.00018 U	0.00015 U
1,2,4-Trichlorobenzene	NS	3.4	NS	0.000087 U	0.000083 U	0.00011 U	0.000076 U	0.000091 U	0.000076 U
1,2-Dibromo-3-Chloropropane	NS	NS	NS	0.00044 U	0.00042 U	0.00053 U	0.00038 U	0.00046 U	0.00038 U
1,2-Dichlorobenzene	1.1	1.1	100	0.00014 U	0.00013 U	0.00016 U	0.00012 U	0.00014 U	0.00012 U
1,2-Dichloroethane	0.02	0.02	3.1	0.00028 U	0.00027 U	0.00034 U	0.00024 U	0.00029 U	0.00025 U
1,2-Dichloropropane	NS	NS	NS	0.00040 U	0.00038 U	0.00048 U	0.00035 U	0.00042 U	0.00035 U
1,3-Dichlorobenzene	2.4	2.4	49	0.00015 U	0.00014 U	0.00018 U	0.00013 U	0.00016 U	0.00013 U
1,4-Dichlorobenzene	1.8	1.8	13	0.000095 U	0.000090 U	0.00011 U	0.000082 U	0.000099 U	0.000083 U
1,4-Dioxane	0.1	0.1	13	0.0087 U	0.0083 U	0.010 U	0.0076 U	0.0091 U	0.0076 U
2-Butanone (MEK)	0.12	0.3	100	0.0028 J	0.0049	0.0013 U	0.00091 U	0.0011 U	0.0089
2-Hexanone	NS	NS	NS	0.00074 U *	0.00070 U *	0.00089 U *	0.00064 U *	0.00077 U *	0.00065 U *
4-Methyl-2-pentanone (MIBK)	NS	1	NS	0.00063 U	0.00060 U	0.00076 U	0.00055 U	0.00066 U	0.00055 U
Acetone	0.05	0.05	100	0.018	0.026	0.016	0.0069	0.017	0.059
Benzene	0.06	0.06	4.8	0.00024 U	0.00023 U	0.00030 U	0.00021 U	0.00026 U	0.00021 U
Bromoform	NS	NS	NS	0.00040 U	0.00038 U	0.00049 U	0.00035 U	0.00042 U	0.00035 U
Bromomethane	NS	NS	NS	0.00045 U	0.00043 U	0.00054 U	0.00039 U	0.00047 U	0.00039 U
Carbon disulfide	NS	2.7	NS	0.00025 U	0.00024 U	0.00030 U	0.00022 U	0.00026 U	0.00022 U
Carbon tetrachloride	0.76	0.76	2.4	0.00017 U	0.00016 U	0.00021 U	0.00015 U	0.00018 U	0.00015 U
Chlorobenzene	1.1	1.1	100	0.00017 U	0.00016 U	0.00020 U	0.00015 U	0.00018 U	0.00015 U
Chlorobromomethane	NS	NS	NS	0.00027 U	0.00025 U	0.00032 U	0.00023 U	0.00028 U	0.00023 U
Chlorodibromomethane	NS	NS	NS	0.00018 U	0.00018 U	0.00022 U	0.00016 U	0.00019 U	0.00016 U
Chloroethane	NS	1.9	NS	0.00050 U	0.00047 U	0.00060 U	0.00043 U	0.00052 U	0.00043 U
Chloroform	0.37	0.37	49	0.00030 U	0.00029 U	0.00036 U	0.00026 U	0.00032 U	0.00026 U
Chloromethane	NS	NS	NS	0.00041 U	0.00039 U	0.00050 U	0.00036 U	0.00043 U	0.00036 U
cis-1,2-Dichloroethene	0.25	0.25	100	0.00014 U	0.00014 U	0.00017 U	0.00013 U	0.00015 U	0.00013 U
cis-1,3-Dichloropropene	NS	NS	NS	0.00026 U	0.00025 U	0.00031 U	0.00023 U	0.00027 U	0.00023 U
Cyclohexane	NS	NS	NS	0.00021 U	0.00020 U	0.00025 U	0.00018 U	0.00022 U	0.00018 U
Dichlorobromomethane	NS	NS	NS	0.00024 U	0.00023 U	0.00029 U	0.00021 U	0.00025 U	0.00021 U
Dichlorodifluoromethane	NS	NS	NS	0.00032 U	0.00031 U	0.00039 U	0.00028 U	0.00033 U	0.00028 U
Ethylbenzene	1	1	41	0.00027 J	0.00018 U	0.00023 U	0.00016 U	0.00020 U	0.00020 J
Ethylene Dibromide	NS	NS	NS	0.00017 U	0.00016 U	0.00021 U	0.00015 U	0.00018 U	0.00015 U
Isopropylbenzene	NS	2.3	NS	0.00012 U	0.00011 U	0.00014 U	0.00010 U	0.00012 U	0.00010 U
Methyl acetate	NS	NS	NS	0.0041 U *	0.0039 U *	0.0049 U	0.0035 U *	0.0043 U *	0.0036 U *
Methyl tert-butyl ether	0.93	0.93	100	0.00012 U	0.00011 U	0.00014 U	0.00010 U	0.00012 U	0.00010 U
Methylcyclohexane	NS	NS	NS	0.00015 U	0.00014 U	0.00018 U	0.00013 U	0.00016 U	0.00013 U
Methylene Chloride	0.05	0.05	100	0.00089 J B	0.00060 J B	0.0030 B	0.0011 B	0.0015 B	0.0017 B
m-Xylene & p-Xylene	0.26	NS	NS	0.00099	0.00098	0.0010 J	0.00069 J	0.00081 J	0.00065 J
o-Xylene	0.26	NS	NS	0.00032 J	0.00039 J	0.00026 J	0.00029 J	0.00030 J	0.00023 J
Styrene	NS	NS	NS	0.00012 U	0.00011 U	0.00014 U	0.00010 U	0.00012 U	0.00010 U
Tetrachloroethene	1.3	1.3	19	0.00014 U	0.00013 U	0.00016 U	0.00012 U	0.00014 U	0.00012 U
Toluene	0.7	0.7	100	0.00059 U	0.00056 U	0.00071 U	0.00052 U	0.00062 U	0.00052 U
trans-1,2-Dichloroethene	0.19	0.19	100	0.00023 U	0.00022 U	0.00028 U	0.00020 U	0.00024 U	0.00020 U
trans-1,3-Dichloropropene	NS	NS	NS	0.00025 U	0.00024 U	0.00030 U	0.00022 U	0.00026 U	0.00022 U
Trichloroethene	0.47	0.47	21	0.00014 U	0.00013 U	0.00016 U	0.00012 U	0.00014 U	0.00012 U
Trichlorofluoromethane	NS	NS	NS	0.00039 U	0.00037 U	0.00046 U	0.00033 U	0.00040 U	0.00034 U
Vinyl chloride	0.02	0.02	0.9	0.00052 U	0.00049 U	0.00062 U	0.00045 U	0.00054 U	0.00045 U
Total Conc	NS	NS	NS	0.02327	0.03287	0.02026	0.00898	0.01961	0.07068

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 21

Deep Soil Sample Analytical Results - SVOCs
Island Hills Golf Course, Sayville, NY

Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup	NYSDEC Restricted Residential Soil Cleanup Objective[2]	SB-001 11' - 13' 460-156390-1 05/17/2018	SB-002 6' - 8' 460-156390-2 05/17/2018	SB-003 8' - 10' 460-156390-3 05/17/2018	SB-004 2' - 4' 460-156390-4 05/17/2018	SB-0004 20' - 22' 460-156390-5 05/17/2018	SB-005 2' - 4' 460-156390-6 05/17/2018
Semi-Volatile Organic Compounds by USEPA method 8270D (mg/Kg)									
1,1'-Biphenyl	NS	NS	NS	0.0045 U	0.0050 U	0.0048 U	0.0046 U	0.0047 U	0.33 U
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	0.0044 U	0.0049 U	0.0047 U	0.0046 U	0.0046 U	0.33 U
2,2'-oxybis[1-chloropropane]	NS	NS	NS	0.0061 U	0.0068 U	0.0065 U	0.0063 U	0.0064 U	0.33 U
2,3,4,6-Tetrachlorophenol	NS	NS	NS	0.023 U	0.026 U	0.025 U	0.024 U	0.024 U	0.33 U
2,4,5-Trichlorophenol	NS	0.1	NS	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U	0.33 U
2,4,6-Trichlorophenol	NS	NS	NS	0.017 U	0.019 U	0.018 U	0.018 U	0.018 U	0.13 U
2,4-Dichlorophenol	NS	0.4	NS	0.0071 U	0.0080 U	0.0076 U	0.0074 U	0.0075 U	0.13 U
2,4-Dimethylphenol	NS	NS	NS	0.015 U	0.017 U	0.016 U	0.015 U	0.016 U	0.33 U
2,4-Dinitrophenol	NS	0.2	NS	0.17 U	0.19 U	0.18 U	0.17 U	0.17 U F1	0.27 U
2,4-Dinitrotoluene	NS	NS	NS	0.017 U	0.019 U	0.018 U	0.018 U	0.018 U	0.068 U
2,6-Dinitrotoluene	NS	NS	NS	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.068 U
2-Chloronaphthalene	NS	NS	NS	0.016 U	0.017 U	0.017 U	0.016 U	0.016 U	0.33 U
2-Chlorophenol	NS	NS	NS	0.0047 U	0.0053 U	0.0051 U	0.0049 U	0.0050 U	0.33 U
2-Methylnaphthalene	NS	36.4	NS	0.0042 U	0.0047 U	0.0045 U	0.0044 U	0.0044 U	0.33 U
2-Methylphenol	0.33	0.33	100	0.0055 U	0.0061 U	0.0058 U	0.0056 U	0.0057 U	0.33 U
2-Nitroaniline	NS	0.4	NS	0.013 U	0.014 U	0.014 U	0.013 U	0.013 U	0.33 U
2-Nitrophenol	NS	0.3	NS	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.33 U
3,3'-Dichlorobenzidine	NS	NS	NS	0.051 U	0.057 U	0.055 U	0.053 U	0.053 U	0.13 U
3-Nitroaniline	NS	0.5	NS	0.018 U	0.020 U	0.020 U	0.019 U	0.019 U	0.33 U
4,6-Dinitro-2-methylphenol	NS	NS	NS	0.055 U	0.061 U	0.059 U	0.057 U	0.057 U F1	0.27 U
4-Bromophenyl phenyl ether	NS	NS	NS	0.0044 U	0.0049 U	0.0047 U	0.0045 U	0.0046 U	0.33 U
4-Chloro-3-methylphenol	NS	NS	NS	0.0056 U	0.0063 U	0.0060 U	0.0058 U	0.0059 U	0.33 U
4-Chloroaniline	NS	0.22	NS	0.024 U	0.026 U	0.025 U	0.024 U	0.025 U	0.33 U
4-Chlorophenyl phenyl ether	NS	NS	NS	0.0053 U	0.0059 U	0.0057 U	0.0055 U	0.0056 U	0.33 U
4-Methylphenol	0.33	0.33	100	0.0058 U	0.0064 U	0.0062 U	0.0060 U	0.0060 U	0.33 U
4-Nitroaniline	NS	NS	NS	0.013 U	0.014 U	0.013 U	0.013 U	0.013 U	0.33 U
4-Nitrophenol	NS	0.1	NS	0.055 U	0.061 U	0.059 U	0.057 U	0.058 U	0.68 U
Acenaphthene	20	98	100	0.025 U	0.027 U	0.026 U	0.025 U	0.026 U F1	0.33 U
Acenaphthylene	100	107	100	0.0035 U	0.0039 U	0.0037 U	0.0036 U	0.0037 U	0.33 U
Acetophenone	NS	NS	NS	0.0055 U	0.0061 U	0.0058 U	0.0056 U	0.0057 U F1	0.33 U
Anthracene	100	1000	100	0.0038 U	0.0042 U	0.0040 U	0.0039 U	0.0039 U	0.33 U
Atrazine	NS	NS	NS	0.0085 U	0.0095 U	0.0091 U	0.0088 U	0.0089 U	0.13 U
Benzaldehyde	NS	NS	NS	0.015 U	0.016 U	0.016 U	0.015 U	0.015 U	0.33 U
Benzo[a]anthracene	1	1	1	0.012 U	0.013 U	0.013 U	0.012 U	0.012 U	0.033 U
Benzo[a]pyrene	1	22	1	0.0090 U	0.010 U	0.0096 U	0.0093 U	0.0094 U	0.033 U
Benzo[b]fluoranthene	1	1.7	1	0.0087 U	0.0098 U	0.0094 U	0.0090 U	0.0091 U	0.033 U
Benzo[g,h,i]perylene	100	1000	100	0.010 U	0.011 U	0.011 U	0.010 U	0.010 U	0.33 U
Benzo[k]fluoranthene	0.8	1.7	3.9	0.0066 U	0.0074 U	0.0071 U	0.0069 U	0.0069 U	0.033 U
Bis(2-chloroethoxy)methane	NS	NS	NS	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.33 U
Bis(2-chloroethyl)ether	NS	NS	NS	0.0041 U	0.0046 U	0.0044 U	0.0042 U	0.0043 U F1	0.033 U
Bis(2-ethylhexyl) phthalate	NS	435	NS	0.018 U	0.020 U	0.019 U	0.018 U	0.019 U	0.33 U
Butyl benzyl phthalate	NS	122	NS	0.016 U	0.018 U	0.017 U	0.016 U	0.017 U	0.33 U
Caprolactam	NS	NS	NS	0.020 U	0.023 U	0.022 U	0.021 U	0.021 U	0.33 U
Carbazole	NS	NS	NS	0.0040 U	0.0044 U	0.0042 U	0.0041 U	0.0041 U	0.33 U
Chrysene	1	1	3.9	0.0057 U	0.0064 U	0.0061 U	0.0059 U	0.0060 U	0.33 U
Dibenz(a,h)anthracene	0.33	1000	0.33	0.015 U	0.016 U	0.016 U	0.015 U	0.015 U	0.033 U
Dibenzofuran	7	6.2	59	0.0047 U	0.0053 U	0.0051 U	0.0049 U	0.0050 U	0.33 U
Diethyl phthalate	NS	7.1	NS	0.0049 U	0.0055 U	0.0052 U	0.0051 U	0.0051 U	0.33 U
Dimethyl phthalate	NS	27	NS	0.0041 U	0.0046 U	0.0044 U	0.0042 U	0.0043 U	0.33 U
Di-n-butyl phthalate	NS	8.1	NS	0.060 U	0.067 U	0.064 U	0.062 U	0.062 U	0.33 U
Di-n-octyl phthalate	NS	120	NS	0.018 U	0.020 U	0.019 U	0.019 U	0.019 U	0.33 U
Fluoranthene	100	1000	100	0.0044 U	0.0049 U	0.0047 U	0.0045 U	0.0046 U	0.33 U
Fluorene	30	386	100	0.0046 U	0.0051 U	0.0049 U	0.0047 U	0.0048 U	0.33 U
Hexachlorobenzene	0.33	1.4	1.2	0.0055 U	0.0053 U	0.0051 U	0.0052 U	0.0049 U	0.033 U
Hexachlorobutadiene	NS	NS	NS	0.0080 U	0.0077 U	0.0074 U	0.0075 U	0.0071 U	0.068 U
Hexachlorocyclopentadiene	NS	NS	NS	0.033 U	0.032 U	0.031 U	0.031 U	0.029 U	0.33 U
Hexachloroethane	NS	NS	NS	0.0058 U	0.0056 U	0.0054 U	0.0054 U F1	0.0052 U	0.033 U
Indeno[1,2,3-cd]pyrene	0.5	8.2	0.5	0.015 U	0.014 U	0.014 U	0.014 U	0.013 U	0.033 U
Isophorone	NS	4.4	NS	0.0099 U	0.0095 U	0.0092 U	0.0093 U F1	0.0088 U	0.13 U
Naphthalene	12	12	100	0.0065 U	0.0063 U	0.0060 U	0.0061 U F1	0.0058 U	0.33 U
Nitrobenzene	NS	0.17	15	0.0091 U	0.0087 U	0.0084 U	0.0085 U F1	0.0080 U	0.033 U
N-Nitrosodi-n-propylamine	NS	NS	NS	0.0060 U	0.0058 U	0.0056 U	0.0056 U	0.0053 U	0.033 U
N-Nitrosodiphenylamine	NS	NS	NS	0.0072 U	0.0069 U	0.0067 U	0.0068 U	0.0064 U	0.33 U
Pentachlorophenol	0.8	0.8	6.7	0.077 U	0.074 U	0.072 U	0.072 U	0.069 U	0.27 U
Phenanthrene	100	1000	100	0.0066 U	0.0064 U	0.0061 U	0.0062 U	0.0059 U	0.33 U
Phenol	0.33	0.33	100	0.0056 U	0.0054 U	0.0052 U	0.0052 U	0.0050 U	0.33 U
Pyrene	100	1000	100	0.0094 U	0.0090 U	0.0087 U	0.0088 U	0.0083 U	0.33 U
Total Conc	NS	NS	NS	0	0	0	0	0	0

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 22

Deep Soil Sample Analytical Results - PCBs
Island Hills Golf Course, Sayville, NY

Sample Location ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC Unrestricted Use Soil Cleanup Objective[1]	NYSDEC Groundwater Protection Soil Cleanup	NYSDEC Restricted Residential Soil Cleanup Objective[2]	SB-001 11' - 13' 460-156390-1 05/17/2018		SB-002 6' - 8' 460-156390-2 05/17/2018		SB-003 8' - 10' 460-156390-3 05/17/2018		SB-004 2' - 4' 460-156390-4 05/17/2018		SB-0004 20' - 22' 460-156390-5 05/17/2018		SB-005 2' - 4' 460-156390-6 05/17/2018	
Polychlorinated biphenyls by USEPA method 8082A (mg/Kg)															
Aroclor 1016	NS	NS	NS	0.0091	U	0.010	U	0.0097	U	0.0094	U	0.0095	U	0.0090	U
Aroclor 1221	NS	NS	NS	0.0091	U	0.010	U	0.0097	U	0.0094	U	0.0095	U	0.0090	U
Aroclor 1232	NS	NS	NS	0.0091	U	0.010	U	0.0097	U	0.0094	U	0.0095	U	0.0090	U
Aroclor 1242	NS	NS	NS	0.0091	U	0.010	U	0.0097	U	0.0094	U	0.0095	U	0.0090	U
Aroclor 1248	NS	NS	NS	0.0091	U	0.010	U	0.0097	U	0.0094	U	0.0095	U	0.0090	U
Aroclor 1254	NS	NS	NS	0.0094	U	0.010	U	0.010	U	0.0097	U	0.0098	U	0.0093	U
Aroclor 1260	NS	NS	NS	0.0094	U	0.010	U	0.010	U	0.0097	U	0.0098	U	0.0093	U
Aroclor 1268	NS	NS	NS	0.0094	U	0.010	U	0.010	U	0.0097	U	0.0098	U	0.0093	U
Aroclor-1262	NS	NS	NS	0.0094	U	0.010	U	0.010	U	0.0097	U	0.0098	U	0.0093	U
Polychlorinated biphenyls, Total	0.1	3.2	1	0.0094	U	0.010	U	0.010	U	0.0097	U	0.0098	U	0.0093	U

[1] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use Soil Cleanup Objective Table 375-6.8a
[2] NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restriced Use Soil Cleanup Objective Table 375-6.8b
NS - No Standard
NA - Not Analyzed
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD Recovery is outside acceptance limits.
F2 : MS/MSD RPD exceeds control limits
B : Compound was found in the blank and sample.
P : The % RPD between the primary and confirmation column/detector is > 40%. The lower value has been reported
* : LCS or LCSD is outside acceptance limits.
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use Criteria
Highlighted text denotes concentrations exceeding NYSDEC Protection of Groundwater Criteria
Highlighted text denotes concentrations exceeding NYSDEC Restricted-Residential Criteria

Table 23

Groundwater Field Data Summary
Island Hills Golf Course, Sayville, NY

Well ID	Reference Elevation	Casing Elevation	Depth to Bottom (bsl)	Depth to Water (bsl)	Groundwater Elevation
May 23, 2018					
MW-001	NM	NM	20.33	11.11	NM
MW-002	NM	NM	31.40	23.60	NM
MW-003	NM	NM	31.40	25.43	NM
MW-004	NM	NM	31.52	24.24	NM
MW-005	NM	NM	30.33	24.65	NM
MW-006	NM	NM	17.60	8.95	NM

Notes:
All measurements are in feet (ft).
Reference elevation is based upon an arbitrary datum
Casing elevation is from the top of the casing
The six wells are pop-up wells, approximately 1 to 3 feet above ground

Table 24
Groundwater Analytical Data Summary - VOCs

Island Hills Golf Course, Sayville, NY

Client Sample ID: Screened Interval: Laboratory ID: Sampling Date:	NYSDEC Groundwater Quality Standards (1)	MW-001 9 - 19' 460-156817-1 05/23/2018		MW-002 20 - 30' 460-156817-2 05/23/2018		MW-003 20 - 30' 460-156817-3 05/23/2018		MW-004 20 - 30' 460-156817-4 05/23/2018		MW-005 18 - 28' 460-156817-5 05/23/2018		MW-006 5 - 15' 460-156817-6 05/23/2018	
Volatile Organic Compounds by USEPA Method 8260C in µg/L													
1,1,1-Trichloroethane	5	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U
1,1,1,2-Tetrachloroethane	5	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
1,1,2-Trichloroethane	1	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U
1,1-Dichloroethane	5	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U
1,1-Dichloroethene	5	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
1,2,3-Trichlorobenzene	5	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U
1,2,4-Trichlorobenzene	5	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U
1,2-Dibromo-3-chloropropane	0.04	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
1,2-Dichlorobenzene	3	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,2-Dichloroethane	0.6	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
1,2-Dichloropropane	1	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
1,3-Dichlorobenzene	3	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
1,4-Dichlorobenzene	3	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
1,4-Dioxane	NS	8.7	U	8.7	U	8.7	U	8.7	U	8.7	U	8.7	U
2-Butanone	50	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
2-Hexanone	50	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U
4-Methyl-2-pentanone	NS	0.63	U	0.63	U	0.63	U	0.63	U	0.63	U	0.63	U
Acetone	50	4	J	3.6	J	3.9	J	3.7	J	3.1	J	2.4	J
Benzene	1	0.09	U	0.09	U	0.09	U	0.09	U	0.09	U	0.09	U
Bromoform	50	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Bromomethane	5	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Carbon disulfide	60	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
Carbon tetrachloride	5	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
Chlorobenzene	5	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U
Dichlorobromomethane	NS	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dichlorodifluoromethane	5	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
Chloroethane	5	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U
Chloroform	7	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
Chloromethane	NS	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
cis-1,2-Dichloroethene	5	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U
cis-1,3-Dichloropropene	0.4	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
Cyclohexane	NS	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U
Dichlorobromomethane	NS	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U
Dichlorodifluoromethane	5	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
Ethylbenzene	5	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Ethylene Dibromide	0.0006	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
Isopropylbenzene	5	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U
Methyl acetate	NS	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U
Methyl tert butyl ether	10	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Methylcyclohexane	NS	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
Methylene chloride	5	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U
m-Xylene & p-Xylene	5	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U
o-Xylene	5	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U
Styrene	5	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Tetrachloroethene	5	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U
Toluene	5	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
trans-1,2-Dichloroethene	5	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
trans-1,3-Dichloropropene	0.4	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
Trichloroethene	5	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
Trichlorofluoromethane	5	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U
Vinyl chloride	2	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U
Total VOCs:		4		3.6		3.9		3.7		3.1		2.4	

Notes:
(1) NYSDEC Ambient Water Quality Standards and Guidance Values 6/1998
* DUP002 is a blind duplicate of GW002
NS - No Standard
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit. The assocaited numerical value is the sample quantit
Highlighted values indicate exceedance of the NYSDEC AWQS

Table 25

Groundwater Analytical Data Summary - SVOCs
Island Hills Golf Course, Sayville, NY

Client Sample ID: Screened Interval: Laboratory ID: Sampling Date:	NYSDEC Groundwater Quality Standards [1]	MW-001 9 - 19' 460-156817-1 05/23/2018		MW-002 20 - 30' 460-156817-2 05/23/2018		MW-003 20 - 30' 460-156817-3 05/23/2018		MW-004 20 - 30' 460-156817-4 05/23/2018		MW-005 18 - 28' 460-156817-5 05/23/2018		MW-006 5 - 15' 460-156817-6 05/23/2018	
Semi-Volatile Organic Compounds by USEPA Method 8270D in µg/L													
1,1'-Biphenyl	5	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2,4,5-Tetrachlorobenzene	5	1.2	U	1.2	U	1.2	U	1.3	U	1.3	U	1.2	U
2,2'-oxybis[1-chloropropane]	5	0.63	U	0.63	U	0.63	U	0.66	U	0.66	U	0.63	U
2,3,4,6-Tetrachlorophenol	NS	0.75	U	0.75	U	0.75	U	0.78	U	0.78	U	0.75	U
2,4,5-Trichlorophenol	NS	0.28	U	0.28	U	0.28	U	0.29	U	0.29	U	0.28	U
2,4,6-Trichlorophenol	NS	0.3	U	0.3	U	0.3	U	0.31	U	0.31	U	0.3	U
2,4-Dichlorophenol	1	0.42	U	0.42	U	0.42	U	0.44	U	0.44	U	0.42	U
2,4-Dimethylphenol	50	0.24	U	0.24	U	0.24	U	0.25	U	0.25	U	0.24	U
2,4-Dinitrophenol	10	14	U	14	U	14	U	15	U	15	U	14	U
2,4-Dinitrotoluene	5	1	U	1	U	1	U	1	U	1	U	1	U
2,6-Dinitrotoluene	5	0.39	U	0.39	U	0.39	U	0.41	U	0.41	U	0.39	U
2-Chloronaphthalene	10	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
2-Chlorophenol	NS	0.38	U	0.38	U	0.38	U	0.39	U	0.39	U	0.38	U
2-Methylnaphthalene	NS	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
2-Methylphenol	NS	0.26	U	0.26	U	0.26	U	0.27	U	0.27	U	0.26	U
2-Nitroaniline	5	0.47	U	0.47	U	0.47	U	0.49	U	0.49	U	0.47	U
2-Nitrophenol	NS	0.75	U	0.75	U	0.75	U	0.78	U	0.78	U	0.75	U
3,3'-Dichlorobenzidine	5	1.4	U *	1.4	U *	1.4	U *	1.5	U *	1.5	U *	1.4	U *
3-Nitroaniline	5	0.96	U	0.96	U	0.96	U	1	U	1	U	0.96	U
4,6-Dinitro-o-cresol	NS	13	U	13	U	13	U	14	U	14	U	13	U
4-Bromophenyl phenyl ether	NS	0.75	U	0.75	U	0.75	U	0.78	U	0.78	U	0.75	U
4-Chloro-3-methylphenol	NS	0.58	U	0.58	U	0.58	U	0.6	U	0.6	U	0.58	U
4-Chloroaniline	5	1.9	U *	1.9	U *	1.9	U *	2	U *	2	U *	1.9	U *
4-Chlorophenyl phenyl ether	NS	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
4-Methylphenol	NS	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U
4-Nitroaniline	5	0.54	U	0.54	U	0.54	U	0.57	U	0.57	U	0.54	U
4-Nitrophenol	NS	0.69	U	0.69	U	0.69	U	0.72	U	0.72	U	0.69	U
Acenaphthene	20	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Acenaphthylene	NS	0.82	U	0.82	U	0.82	U	0.86	U	0.86	U	0.82	U
Acetophenone	NS	0.79	U	0.79	U	0.79	U	0.82	U	0.82	U	0.79	U
Anthracene	50	0.63	U	0.63	U	0.63	U	0.66	U	0.66	U	0.63	U
Atrazine	7.5	1.3	U	1.3	U	1.3	U	1.4	U	1.4	U	1.3	U
Benzaldehyde	NS	0.59	U *	0.59	U *	0.59	U *	0.62	U *	0.62	U *	0.59	U *
Benzo(a)anthracene	0.002	0.59	U	0.59	U	0.59	U	0.62	U	0.62	U	0.59	U
Benzo(a)pyrene	0	0.41	U	0.41	U	0.41	U	0.42	U	0.42	U	0.41	U
Benzo(b)fluoranthene	0.002	1.1	U	1.1	U	1.1	U	1.2	U	1.2	U	1.1	U
Benzo(ghi)perylene	NS	1.4	U	1.4	U	1.4	U	1.5	U	1.5	U	1.4	U
Benzo(k)fluoranthene	0.002	0.67	U	0.67	U	0.67	U	0.7	U	0.7	U	0.67	U
Bis(2-chloroethoxy)methane	5	0.24	U	0.24	U	0.24	U	0.25	U	0.25	U	0.24	U
Bis(2-chloroethyl)ether	1	0.3	U	0.3	U	0.3	U	0.31	U	0.31	U	0.3	U
Bis(2-ethylhexyl)phthalate	5	1.7	U	1.7	U	1.7	U	1.8	U	1.8	U	1.7	U
Butyl benzyl phthalate	50	0.85	U	0.85	U	0.85	U	0.89	U	0.89	U	0.85	U
Caprolactam	NS	0.68	U	0.68	U	0.68	U	0.71	U	0.71	U	0.68	U
Carbazole	NS	0.68	U	0.68	U	0.68	U	0.71	U	0.71	U	0.68	U
Chrysene	0.002	0.91	U	0.91	U	0.91	U	0.94	U	0.94	U	0.91	U
Dibenzo(a,h)anthracene	NS	0.72	U	0.72	U	0.72	U	0.75	U	0.75	U	0.72	U
Dibenzofuran	NS	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Diethyl phthalate	50	0.98	U	0.98	U	0.98	U	1	U	1	U	0.98	U
Dimethyl phthalate	50	0.77	U	0.77	U	0.77	U	0.8	U	0.8	U	0.77	U
Di-n-butylphthalate	50	0.84	U	0.84	U	0.84	U	0.88	U	0.88	U	0.84	U
Di-n-octylphthalate	50	4.8	U	4.8	U	4.8	U	5	U	5	U	4.8	U
Fluoranthene	50	0.84	U	0.84	U	0.84	U	0.88	U	0.88	U	0.84	U
Fluorene	50	0.91	U	0.91	U	0.91	U	0.95	U	0.95	U	0.91	U
Hexachlorobenzene	0.04	0.4	U	0.4	U	0.4	U	0.41	U	0.41	U	0.4	U
Hexachlorobutadiene	0.5	0.78	U	0.78	U	0.78	U	0.81	U	0.81	U	0.78	U
Hexachlorocyclopentadiene	5	1.7	U	1.7	U	1.7	U	1.8	U	1.8	U	1.7	U
Hexachloroethane	5	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Indeno(1,2,3-cd)pyrene	0.002	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Isophorone	50	0.8	U	0.8	U	0.8	U	0.83	U	0.83	U	0.8	U
Naphthalene	10	1.1	U	1.1	U	1.1	U	1.2	U	1.2	U	1.1	U
Nitrobenzene	0.4	0.57	U	0.57	U	0.57	U	0.59	U	0.59	U	0.57	U
n-Nitrosodi-n-propylamine	NS	0.43	U	0.43	U	0.43	U	0.45	U	0.45	U	0.43	U
NDPA/DPA	50	0.89	U	0.89	U	0.89	U	0.93	U	0.93	U	0.89	U
Pentachlorophenol	1	1.4	U	1.4	U	1.4	U	1.5	U	1.5	U	1.4	U
Phenanthrene	50	0.58	U	0.58	U	0.58	U	0.6	U	0.6	U	0.58	U
Phenol	1	0.29	U	0.29	U	0.29	U	0.3	U	0.3	U	0.29	U
Pyrene	50	1.6	U	1.6	U	1.6	U	1.7	U	1.7	U	1.6	U
Total SVOCs:		0		0		0		0		0		0	

Notes:
(1) NYSDEC Ambient Water Quality Standards and Guidance Values 6/1998 - Standard
* : LCS or LCSD is outside acceptance limits.
NS - No Standard
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit. The assocaited numerical value is the sample quantitation limit.
Highlighted values indicate exceedance of the NYSDEC AWQS or GV

Table 26
Groundwater Analytical Data Summary - Metals (Total and Dissolved)

Island Hills Golf Course, Sayville, NY

Client Sample ID:	NYSDEC Groundwater Quality Standards [1]	MW-001		MW-002		MW-003		MW-004		MW-005		MW-006	
Screened Interval:		9 - 19'		20 - 30'		20 - 30'		20 - 30'		18 - 28'		5 - 15'	
Laboratory ID:		460-156817-1		460-156817-2		460-156817-3		460-156817-4		460-156817-5		460-156817-6	
Sampling Date:		05/23/2018		05/23/2018		05/23/2018		05/23/2018		05/23/2018		05/23/2018	
Sample Type:		Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
Total Metals by USEPA Method 6020A in µg/L													
Aluminum	NS	62.5	15 U	17.9 J	15 U	23.6 J	15 U	26.5 J	15 U	19.1 J	15 U	37.9 J	15 U
Antimony	3	2.9	0.62 U	2.7	0.62 U	2.4	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
Arsenic	25	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
Barium	1,000	24.2	25.8	20	20.9	18.8	19.2	22	22.9	21.3	22.1	32	32.9
Beryllium	3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Cadmium	5	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
Calcium	NS	11,000	11,000	9,280	9,190	8,070	8,030	11,600	11,900	7,400	7,390	54,200	54,400
Chromium	50	1.3 U	1.3 U	1.3 J	1.3 U	1.9 J	1.3 U	1.3 J	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Cobalt	NS	1.4 J	1.3 J	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	3.3 J	3.2 J
Copper	200	7.5	3.5 J	2 J	1.9 U	1.9 U	1.9 U	3 J	1.9 J	2.4 J	1.9 U	2.1 J	1.9 U
Iron	300	175	45.7 U	52.2 J	45.7 U	66.9 J	45.7 U	60.7 J	45.7 U	45.7 U	45.7 U	320	71.5 J
Lead	25	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Magnesium	35,000	3,670	3,770	4,070	4,220	3,430	3,510	5,120	4,920	3,510	3,350	9,250	8,840
Manganese	300	335	312	9.5	7.6 J	19.5	17.9	23.5	22.7	67.2	65.4	165	164
Nickel	100	3.5 J	3 J	1.3 U	1.3 U	1.4 J	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	4.7	4.4
Potassium	NS	3,820	3,550	5,640	5,620	3,840	3,540	4,210	4,280	4,880	4,730	3,310	3,320
Selenium	10	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	1.1 J	0.98 J
Silver	50	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Sodium	20,000	10,400	9,810	17,000	16,300	12,500	11,800	13,200	12,700	16,200	15,500	23,700	22,400
Thallium	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Vanadium	NS	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 J	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Zinc	2,000	5.6 J	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	46.8	48.5
Mercury by USEPA Method 7470Ain µg/L													
Mercury	0.7	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
(1) 6NYCRR Part 703.5 GA Groundwater Quality Standards (GQS) and Guidance Values (GV) 6/199
* DUP002 is a blind duplicate of GMW002
NS - No Standard
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
Highlighted values indicate exceedance of the NYSDEC GQS or GV.

Table 27
Groundwater Analytical Data Summary - Pesticides, Herbicides, and Nitrogen Series

Island Hills Golf Course, Sayville, NY

Client Sample ID: / Screened Interval: / Laboratory ID: / Sampling Date:	NYSDEC Groundwater Quality Standards (1)	MW-001 9 - 19' 460-156817-1 05/23/2018		MW-002 20 - 30' 460-156817-2 05/23/2018		MW-003 20 - 30' 460-156817-3 05/23/2018		MW-004 20 - 30' 460-156817-4 05/23/2018		MW-005 18 - 28' 460-156817-5 05/23/2018		MW-006 5 - 15' 460-156817-6 05/23/2018	
Organochlorine Pesticides by USEPA Method 8081B in µg/L													
4,4'-DDD	0.3	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
4,4'-DDE	0.2	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
4,4'-DDT	0.2	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Aldrin	0	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U
Alpha-BHC	0.01	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U
Beta-BHC	0.04	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Chlordane	0.05	0.055	U	0.055	U	0.055	U	0.055	U	0.055	U	0.055	U
Delta-BHC	0.04	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
Dieldrin	0.004	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U
Endosulfan I	NS	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Endosulfan II	NS	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Endosulfan sulfate	NS	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
Endrin	0	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Endrin aldehyde	5	0.008	U	0.008	U	0.008	U	0.008	U	0.008	U	0.008	U
Endrin ketone	5	0.008	U	0.008	U	0.008	U	0.008	U	0.008	U	0.008	U
gamma-BHC (Lindane)	0.05	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	0.012	U
Heptachlor	0.04	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U	0.003	U
Heptachlor epoxide	0.03	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
Methoxychlor	35	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Toxaphene	0.06	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U
Herbicides by USEPA Method 8151A in µg/L													
2,4,5-T	35	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U
2,4-D	50	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Silvex (2,4,5-TP)	0.26	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U
Ammonia by USEPA Method 350.1 in mg/L													
Ammonia	NS	0.078	J	0.063	J	0.057	J	0.076	J	0.15		0.22	
TKN by USEPA method 351.2 in mg/L													
Total Kjeldahl Nitrogen	NS	0.73	B F1	0.29	B	0.27	B	0.3	B	0.32	B	0.39	B
Nitrate/Nitrite by USEPA method 353.2 in mg/L													
Nitrate as N	10	4.3	H	3.1	H	3		4.7		2.7		8.7	
Nitrate Nitrite as N	10	4.4	H	3.3	H	3.1		5		2.9		9.1	
Nitrite as N	1	0.024	J H	0.038	J H	0.028	J	0.019	J	0.038	J	0.032	J

Notes:
(1) 6NYCRR Part 703.5 GA Groundwater Quality Standards (GQS) and Guidance Values (GV) 6/199
* DUP002 is a blind duplicate of MW002
NS - No Standard
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated
Highlighted values indicate exceedance of the NYSDEC GQS or GV.

APPENDIX A
PHASE I ESA

ISLAND HILLS GOLF CLUB
458 LAKELAND AVENUE
SAYVILLE, NY 11782
TAX MAP ID: DISTRICT 500, SECTION 280, BLOCK 1, LOTS 16, 15.1, 10, 4, 3, 2 AND SECTION 257, BLOCK 3, LOT 3

PHASE I
ENVIRONMENTAL SITE ASSESSMENT
(ASTM 1527-13/40 CFR PART 312)

PREPARED FOR:

385 IH, LLC
85 South Service Road
Plainview, NY 11803

PREPARED BY:

P.W. Grosser Consulting, Inc.
630 Johnson Avenue, Suite 7
Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

Jennifer Lewis, PG, Senior Project Manager JenniferL@pwgrosser.com

PWGC Project Number: RSL1801

JUNE 2018

PHASE I ENVIRONMENTAL SITE ASSESSMENT
458 LAKELAND AVENUE, SAYVILLE, NEW YORK

TABLE OF CONTENTS

PAGE

1.0 EXECUTIVE SUMMARY 1
2.0 INTRODUCTION 4
2.1 Purpose 4
2.2 Scope of Services 4
2.3 Definitions 5
2.4 Significant Assumptions 5
2.5 Limitations and Exceptions 6
2.6 Special Terms and Conditions 6
2.7 User Reliance 7
2.8 Data Gaps 7
3.0 PROPERTY DESCRIPTION AND PHYSICAL SETTING 8
3.1 Location and Legal Description 8
3.2 Site Description and Improvements 8
3.2.1 Municipal Services and Utilities 8
3.3 Physical Setting 9
3.3.1 Regional Geology / Hydrogeology 9
3.3.2 Local Hydrogeology 10
3.3.3 Flood Potential 10
3.3.4 Direction and Distance to Nearest Surface Water 10
4.0 PROPERTY USAGE 11
4.1 Current Property Usage 11
4.2 Current Usage of Adjoining/Surrounding Properties 11
4.3 Historical Usage of Subject Property and Surrounding Properties 11
5.0 USER PROVIDED INFORMATION 14
5.1 User Requirements 14
5.2 Title Records 14
5.3 Environmental Liens 14
5.4 Specialized Knowledge 14
5.5 Commonly Known or Reasonably Ascertainable Information 14
5.6 Valuation Reduction for Environmental Issues 14
5.7 Owner, Property Manager and Occupant Information 15
5.8 Reason for Performing Phase I ESA 15
6.0 RECORDS REVIEW 16
6.1 Standard Environmental Record Sources 16
6.1.1 Federal Databases 16
6.1.2 State and Local Databases 18
6.1.3 EDR Databases 22
6.1.4 Orphan Sites 23
6.2 Vapor Encroachment 23
6.3 Additional Environmental Record Sources 24
6.3.1 Freedom of Information Act Requests 24
6.3.2 Publicly Available Information 25

7.0 SITE RECONNAISSANCE 26
7.1 Methodology and Limiting Conditions 26
7.2 Aboveground Storage Tanks (AST) 26
7.3 Underground Storage Tanks (UST) 26
7.4 Hazardous and Non-Hazardous Chemical Storage 26
7.5 Waste Generation, Storage, and Disposal 27
7.6 Polychlorinated Biphenyls (PCBs) 27
7.7 Additional Site Conditions 28
7.8 Neighboring Properties 29
8.0 INTERVIEWS 30
8.1 Current Owner/Occupant 30
8.2 Previous Environmental Reports 30
8.2.1 Phase I Environmental Site Assessment by PWGC - Parcels 1 and 2 (April 2006) 30
8.2.2 Phase II Environmental Site Assessment by PWGC – Parcels 1 and 2 (April 2006) 30
8.2.3 Phase I Environmental Site Assessment by PWGC – Parcels 4, 6, 7, and 8 (June 2006) . 31
8.2.4 Phase II Environmental Site Assessment by PWGC (July 2006) 33
8.2.5 UIC Remediation by F&E (2007) 35
8.2.6 Removal of UST by VIP (2010) 36
8.2.7 Phase I Environmental Site Assessment by PWGC (2014) 36
8.2.8 Site Remediation by PWGC (October 2015) 37
8.2.9 Phase I Environmental Site Assessment by Partner (2017) 38
8.3 Local Government Officials 39
9.0 CONDITIONS OUTSIDE THE SCOPE OF ASTM 1527-13 40
9.1 Wetland Delineation 40
9.2 Radon Risk Evaluation 40
9.3 Asbestos 40
9.4 Lead-Based Paint (LBP) 40
9.5 Mold 40
10.0 FINDINGS AND OPINIONS 41
11.0 CONCLUSIONS AND RECOMMENDATIONS 43
12.0 DEVIATIONS 44
13.0 REFERENCES 45
14.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL 46

PHASE I ENVIRONMENTAL SITE ASSESSMENT
458 LAKELAND AVENUE, SAYVILLE, NEW YORK

TABLES

Table 4-1	Surrounding Property Usage
Table 4-2	Subject Property Historical Usage
Table 4-3	Surrounding Area Historical Usage
Table 6-1	Federal Databases Searched
Table 6-2	State and Local Databases Searched
Table 6-3	Additional Databases Searched
Table 7-1	Additional Site Conditions

FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan

APPENDICES

Appendix A	Site Photographs
Appendix B	Sanborn Maps
Appendix C	Topographic Maps
Appendix D	Aerial Photos
Appendix E	City Directory Abstract
Appendix F	Site Questionnaire and Relevant Documents
Appendix G	EDR Radius Map Report
Appendix H	Tier 1 Vapor Encroachment Screening
Appendix I	Freedom of Information Act Requests

1.0 EXECUTIVE SUMMARY

385 IH, LLC (Client) retained P.W. Grosser Consulting, Inc. (PWGC) to prepare a Phase I Environmental Site Assessment (ESA) for the property located at 458 Lakeland Avenue in Sayville, New York. The purpose of the Phase I ESA was to identify and evaluate the presence of Recognized Environmental Conditions (RECs) at the subject site. RECs are the presence or likely presence of any hazardous substance or petroleum product under conditions that indicate an existing release, a past release or material threat of a release of any hazardous substance or petroleum product into structures on the property or into the ground, groundwater or surface water of the property.

The subject property consists of seven parcels located at 458 Lakeland Avenue in Sayville, New York. The site is located in Suffolk County. The property is identified in the Suffolk County Tax Map as District 500, Section 280, Block 1, Lots 16, 15.1, 10, 4, 3, 2 and Section 257, Block 3, Lot 3.

The subject property measures approximately 113 acres and there are several vacant buildings located on the property which are comprised of the following:

- Island Hills Golf Club club house (club house)
- The south maintenance building (SMB)
- The central maintenance building (CMB)
- A pro-shop / golf cart storage building
- A pool house
- Two single family houses

Work was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-13 (Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process), 40 Code of Federal Regulations (CFR) Part 312 (Standards and Practices for All Appropriate Inquiry; Final Rule) and PWGC's proposal for services.

PWGC evaluated the findings associated with the subject property and identified three RECs, one HRECs and no CRECs with respect to the subject property. Conditions determined to be RECs are detailed below:

- The site has a long history of being an active golf course. Chemicals such as pesticides, herbicides, and fertilizers have been used at the site; the majority of the chemical storage and mixing was conducted by the SMB. Samples from previous site assessments reveal that the surface soils are impacted with metals and pesticides, predominantly mercury, chlordane, and heptachlor epoxide. Debris piles and mounds of soil were historically observed and sampled. During the recent site inspection, these piles and mounds were not identified; however, the presence of overgrown vegetation may have made inspection of these piles difficult. As the property no longer operates as a golf course and redevelopment of the property is contemplated, these conditions represent a REC.
- Three ASTs were identified at the site: one 275 gallon AST located in the basement of each residential house and one 550 gallon AST located adjacent to the pro-shop and in direct contact with the soil. The ASTs were in varying conditions from good to fair and there was no evidence of leaks from the ASTs. The ASTs are still partially full of liquids and over time, the ASTs, without proper maintenance may fail. The presence of these ASTs represents a REC.
- Several of the onsite sanitary and stormwater systems were successfully remediated in 2007 and in 2015. The golf course ceased operations shortly after the 2015 remediation, so the structures remediated in 2015 are unlikely to be impacted; however, a significant amount of time has passed since the 2007 remediation occurred of the structures in the club house parking lot. Continued use after the remediation may have resulted in additional impact to that system; therefore, the presence of the sanitary and stormwater drains in the parking lot of the club house and the two stormwater drains on the course represent a REC.
- The subject property is identified as a NYSPILLS site. Spill number 05-11071 was opened on December 12, 2005, due to a bad check valve observed during a tank test. No contamination was found, the check valve was replaced, and the tank passed a new test. The NYSDEC closed spill number 05-11071 on March 21, 2006; therefore, this represents a HREC.

Based on the identified RECs, PWGC recommends a Phase II ESA be performed at the site. The Phase II ESA should include:

- General characterization of surface soils across the golf course to determine the extent of impact from the site's historic operation as a golf course. Samples should be analyzed for a minimum of pesticides, metals, and herbicides. Preparation of a Soil and Materials Management Plan may be appropriate to

document the procedures for properly handling shallow soils and soil from the debris pile if the site is to be redeveloped.

- The stormwater and sanitary systems should be sampled, remediated if necessary, and decommissioned with SCDHS and EPA as they are no longer in service as part of the redevelopment of the property.
- The ASTs should be cleaned and removed from the site as part of the redevelopment of the property.

Although not a part of the ASTM E1527-13 scope, the following additional site concerns must be considered:

- Based on the apparent age of the buildings at the site, it is possible that ACM are present within the structures. PWGC recommends that, prior to demolition or renovation of the buildings, a proper asbestos survey be performed, and identified ACM properly abated.

2.0 INTRODUCTION

2.1 Purpose

385 IH, LLC (Client) retained P.W. Grosser Consulting, Inc. (PWGC) to prepare a Phase I Environmental Site Assessment (ESA) for the property located at 458 Lakeland Avenue in Sayville, New York. The purpose of the Phase I ESA was to identify and evaluate the presence of Recognized Environmental Conditions (RECs) at the subject site. RECs are the presence or likely presence of any hazardous substance or petroleum product under conditions that indicate an existing release, a past release or material threat of a release of any hazardous substance or petroleum product into structures on the property or into the ground, groundwater or surface water of the property.

2.2 Scope of Services

The assessment consisted of a visual inspection of the site and surrounding areas, interviews, a review of historical information and aerial photographs, and a review of pertinent local, state, federal and facility records. Environmental Data Resources (EDR) of Shelton, Connecticut provided the following: a database search of environmental compliance records of sites within an ASTM standard radius of the property, a Sanborn fire insurance map search, historical aerial photograph search and a historical telephone directory search.

PWGC reviewed the environmental database report compiled by EDR as a part of the assessment. The purpose of the review was to identify reported listings for the subject property or other properties in the site vicinity. Databases reviewed included federal and state lists of known or suspected contaminated sites, lists of known handlers or generators of hazardous waste, lists of known waste disposal facilities, and lists of aboveground and underground storage tanks (ASTs and USTs). PWGC's review of the database has been incorporated into this report along with a copy of the EDR report.

The work was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-13 (Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process), 40 CFR Part 312 (Standards and Practices for All Appropriate Inquiry; Final Rule) and PWGC's proposal for services.

2.3 Definitions

1. RECs are the presence or likely presence of any hazardous substance or petroleum product in, on, or at a property: (1) due to any release to the environment; (2) under the conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.
2. Historic RECs (HREC) are identified as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, activity or use limitations (AULs), institutional controls, or engineering controls).
3. Controlled RECs (CREC) are identified as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a No Further Action (NFA) letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls).
4. A *de minimus* condition generally does not present a threat to human health or of the environment, and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimus* conditions are not RECs nor CRECs.

2.4 Significant Assumptions

PWGC has made the following significant assumptions in the preparation of this report:

1. Groundwater Flow Direction – Based upon regional groundwater elevation maps, and local topography, regional groundwater flow direction appears to be toward the south.
2. Regulatory Records Information - PWGC assumes that all information provided by EDR regarding the regulatory status of facilities within the ASTM Standard approximate minimum search distance is complete, accurate and current.
3. Other - PWGC assumes that all information provided through interviews is complete and unbiased.

2.5 Limitations and Exceptions

The conclusions presented in this report are professional opinions based on the data described in this report. These opinions have been arrived at in accordance with currently accepted engineering and hydrogeologic standards and practices applicable to this location, and are subject to the following inherent limitations:

1. The data presented in this report are from visual inspections, examination of records in the public domain, and interviews with individuals having information about the site. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration of the site, analysis of data, and re-evaluation of the findings, observations, and conclusions presented in this report.
2. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. The scope of work was defined by the request of the client.
3. No warranty or guarantee, whether expressed or implied, is made with respect to the data reported, findings, observations, or conclusions. These are based solely upon site conditions in existence at the time of the investigation, and other information obtained and reviewed by PWGC.
4. PWGC's Phase I ESA report presents professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, or regulations, or policies of federal, state, or local government agencies. PWGC does not assume liability for financial or other losses or subsequent damage caused by or related to any use of this document.
5. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, site location, and project indicated. This report is not a definitive study of contamination at the site and should not be interpreted as such.
6. This report is based, in part, on information supplied to PWGC by third-party sources. While efforts have been made to substantiate this third-party information, PWGC cannot attest to the completeness or accuracy of information provided by others.

2.6 Special Terms and Conditions

Authorization to perform this assessment was given by a proposal for services between 385 IH, LLC and PWGC.

2.7 User Reliance

This report was prepared for the exclusive use of 385 IH, LLC. PWGC assumes no liability for use of this report by any person or entity other than those for which it was prepared.

2.8 Data Gaps

Any data gaps identified herein, as defined by ASTM Practice E 1527-13 § 3.2.20, are not considered to have significantly affected the ability to identify RECs in connection with the subject property and do not alter the conclusions of this report.

3.0 PROPERTY DESCRIPTION AND PHYSICAL SETTING

3.1 Location and Legal Description

The subject property consists of seven parcels located at 458 Lakeland Avenue in Sayville, New York. The site is located in Suffolk County. The property is identified in the Suffolk County Tax Map as District 500, Section 280, Block 1, Lots 16, 15.1, 10, 4, 3, 2 and Section 257, Block 3, Lot 3.

A Site Location Map is included as **Figure 1** and a Site Plan is included as **Figure 2**; photos of the site are included in **Appendix A**.

3.2 Site Description and Improvements

The subject property measures approximately 113 acres and there are several vacant buildings located on the property which are comprised of the following:

- Island Hills Golf Club club house (club house)
- The south maintenance building (SMB)
- The central maintenance building (CMB)
- A pro-shop / golf cart storage building
- A pool house
- Two single family houses

3.2.1 Municipal Services and Utilities

Utility services are provided to the property as follows:

- Heating/Cooling System –
    - The club house building is heated by natural gas.
    - The SMB is heated by natural gas.
    - The CMB is not heated.
    - The pro-shop / golf cart storage building is heated with natural gas and fuel oil.
    - The pool house is not heated.
    - The single family houses are heated by fuel oil.
- Water Supply – The property is serviced by the Suffolk County Water Authority. A private well also exists along the western side of the property for irrigation purposes.

- Sanitary System –
    - The club house is serviced by three septic systems. The northern portion of the club house, which houses the men's and women's locker rooms, the small laundry room, and the bar, is split into two sanitary systems northeast and northwest of the building. The southern portion of the club house, where the kitchen is located, is serviced by a separate septic system located in the parking lot east of the building. Grease from kitchen wastes is separated out in a grease trap prior to discharge into the septic system.
    - The CMB contains a septic system located northeast of the building.
    - The SMB contains a septic system located south of the building.
    - The pro-shop contains a septic system located south of the building.
    - The single family houses contain septic systems.
    - The pool house contains a septic system southwest of the building.
- Electric – Electric service is currently provided by PSE&G LI. There is a transformer located on the southeast side of the club house and one near the irrigation well on the west side of the property. No other transformers were identified at the site.
- Emergency Electrical Power – N/A

3.3 Physical Setting

The topography of the site and surrounding area was reviewed from the USGS 7.5-minute series topographic map for the Patchogue, New York quadrangle. The property elevation ranges between approximately 30 and 40 feet above the National Geodetic Vertical Datum (NGVD). Regional physiographic conditions are summarized below.

3.3.1 Regional Geology / Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan Clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan Clay is a solid and silty clay with: few lenses of sand and gravel; abundant lignite and pyrite; and gray, red or white in color.

Above the Raritan Clay lies the Magothy Formation. The Magothy Aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Aquifer is overlain by the Upper Glacial Aquifer. The Upper Glacial Aquifer is the water table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the land surface to the top of the Magothy and, therefore, is hydraulically connected to the Magothy Aquifer.

3.3.2 Local Hydrogeology

Based upon the site elevation, regional groundwater contour maps, and a Phase II ESA conducted by PWGC, the depth to groundwater beneath the site ranges between approximately 8 and 23 feet below grade with the large range due to the site's topography. Regional groundwater flow is estimated to be toward the south.

Based upon information contained within the EDR report, there are no public water supply wells within a one-mile radius of the subject property.

3.3.3 Flood Potential

PWGC reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) to determine if the subject property is located within the 100-year or 500-year flood zones. Based upon FIRM data, it appears that the subject property is not located within the 100 or 500-year flood zone (FEMA Map Panel ID: 36103C0688G).

3.3.4 Direction and Distance to Nearest Surface Water

Based on topographic maps, it appears that the nearest permanent surface water body is Green Creek, located approximately ¼ mile south-southeast of the subject property.

4.0 PROPERTY USAGE

4.1 Current Property Usage

The subject property is currently a vacant golf course and club house, with associated buildings, including two vacant single family houses.

4.2 Current Usage of Adjoining/Surrounding Properties

A summary of the surrounding properties is as follows:

Table 4-1 - Surrounding Property Usage

Direction	Property Description
North	11th Street, single-family residential
South	Single-family residential
East	Lakeland Avenue, single-family residential, and an apartment complex
West	Bohemia Parkway, single-family residential

4.3 Historical Usage of Subject Property and Surrounding Properties

Historical sources researched to determine past usage of the subject property and surrounding properties are as follows:

Sanborn Fire Insurance Maps - EDR was retained to provide historical Sanborn fire insurance maps of the subject and adjacent properties. Historical Sanborn maps for the subject property and surrounding area do not exist. A copy of the historical Sanborn no coverage letter is included in **Appendix B**.

Historical Topographic Maps - Historical topographic maps for the subject property and surrounding area were reviewed for the years available which include 1902 to 2013. The resolution of the topographic maps do not allow for proper interpretation of the subject property. The golf course first appears on the 1944 topographic map and first identified as the Island Hills Golf Club on the 1955 topographic map. Copies of historical topographic maps are included as **Appendix C**.

Historical Aerial Photographs - PWGC performed a review of readily available aerial photographs showing the subject property and surrounding area. Photographs were reviewed for the years available which include 1938

to 2015. Review of the photos is summarized in Table 4-2. A copy of the aerial photograph search is included in **Appendix D**.

City Directory Listings - EDR was retained to provide a directory of historical telephone listings at the subject property and surrounding properties. City directories were reviewed for the years available which include 1974 to 2014. A copy of the city directory report is included as **Appendix E**.

Table 4-2 - Subject Property Historical Usage

Date(s)	Source	Issues Noted	Description
1938	AP	Yes	The subject property appears to be developed as a golf course, the club house in the northeastern section of the site is constructed.
1947 to 2015	AP, CD	Yes	The golf course appears to have been improved with several additional buildings between 1954 and 1962, including the pool house, the pro-shop, the CMB, and the SMB. A road running between Lakeland Avenue and the golf course in front of the club house was closed and a parking lot was created in front of the club house. The city directory includes listings for a caterer.
Sources: SB – Sanborn Map; TM – Historical Topographic Map; AP – Aerial Photograph; CD – City Directory			

Historical information for the subject property and information from internet searches indicates that it was first developed and operated as a golf course in 1927. A golf course may use chemicals such as pesticides, herbicides, and fertilizers.

Table 4-2 – Surrounding Area Historical Usage

Date(s)	Source	Issues Noted	Description
1902 to 2015	TM, AP, CD	No	North: Mostly undeveloped, a couple of single-family residential dwellings South: Undeveloped until approximately 1962 when residential houses were being developed. East: Scattered single-family residential dwellings until approximately 1970 when increased single family development occurred. An apartment complex was constructed in the previously undeveloped area by 2004. West: Undeveloped until approximately 1957 when scattered single-family residential dwellings appeared; further single-family houses were constructed in approximately 1970.
Sources: SB – Sanborn Map; TM – Historical Topographic Map; AP – Aerial Photograph; CD – City Directory			

Review of historical information for the properties surrounding the subject property indicate that development of the area began around the 1950's and was primarily single-family residential with the inclusion of an apartment complex in the 2000's. Historical usage of properties in the surrounding area indicative of potential RECs was not identified.

5.0 USER PROVIDED INFORMATION

5.1 User Requirements

The user of a Phase I ESA report, in accordance with the USEPA All Appropriate Inquiries (AAI) Rule and ASTM E1527-13 has certain responsibilities which include providing the following information, if available, to PWGC to be included within the Phase I Report. Additionally, PWGC provided the user of the report a User Questionnaire form. The information requested in the User Questionnaire is intended to assist in gathering information that may be material to identify if RECs are present at the subject property. A copy of the User Questionnaire and any provided documents are included in **Appendix F**; relevant information has been incorporated into this report.

5.2 Title Records

Title records for the site may contain information about past owners and uses of the subject property. The title report may also contain site information such as restrictive declarations which are limitations on site uses based upon know environmental conditions. As of the date of this report the user has not provided PWGC with a title search, or requested that PWGC perform a title search.

5.3 Environmental Liens

An environmental lien is a charge, security or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup or other remediation of hazardous substances or petroleum products upon a property, including, but not limited to, liens imposed pursuant to CERCLA 42 USC § 9607 (1) & 9607(r) and similar state and local laws. As of the date of this report the user has not provided PWGC with a lien search, or requested that PWGC perform a lien search.

5.4 Specialized Knowledge

The user provided no specialized knowledge about the property to PWGC.

5.5 Commonly Known or Reasonably Ascertainable Information

The user provided no commonly known information about the property to PWGC.

5.6 Valuation Reduction for Environmental Issues

The user provided no information regarding price adjustments to the subject parcels value due to environmental issues.

5.7 Owner, Property Manager and Occupant Information

The property is currently owned by 385 IH LLC and is occupied by a vacant golf course and associated buildings, along with two vacant single family houses.

5.8 Reason for Performing Phase I ESA

The Phase I ESA was performed to evaluate potential RECs prior to redevelopment of the property.

6.0 RECORDS REVIEW

6.1 Standard Environmental Record Sources

EDR of Shelton, Connecticut was retained to provide a database search of the project area within an ASTM-standard radius of the subject property. A list of the databases searched and the search radius is shown on the summary table below. PWGC reviewed the database output to determine if the property appears on any of the regulatory agency lists. Detailed information concerning each database list is provided in the EDR report (**Appendix G**).

In order to evaluate the potential for a site to have an adverse impact to the subject site, the migration pattern of contaminants in media such as groundwater or soil vapor is considered. Based upon the presumed regional flow towards the south, the following is assumed:

- Sites located north of the subject site are considered to have the highest potential to impact the subject site and are referred to as "upgradient."
- Sites located south of the subject site, which are not neighboring or adjacent to the subject site are considered to have the least potential to impact the subject site and are referred to as "downgradient."
- All other sites not adjacent to or neighboring the subject property are referred to as "cross-gradient" and are considered to have minimal potential to impact the subject site.

A summary of standard environmental record sources researched is as follows:

6.1.1 Federal Databases

The table below summarizes the Federal databases that were searched.

Table 6-1 - Federal Databases Searched

Agency	Listing Name or database Searched	Abbreviation	Search Distance	Target Property Identified	Nearby Properties Identified
USEPA	National Priority List	NPL	1.0 mile	No	0
USEPA	National Priority List Deletions	Delisted NPL	0.5 mile	No	0
USEPA	Superfund Enterprise Management System	SEMS	0.5 mile	No	0

Agency	Listing Name or database Searched	Abbreviation	Search Distance	Target Property Identified	Nearby Properties Identified
USEPA	Superfund Enterprise Management System Archive	SEMS-ARCHIVE	0.5 mile	No	1
USEPA	Resource Conservation and Recovery Act Corrective Action Activity	CORRACTS	1.0 mile	No	0
USEPA	Resource Conservation and Recovery Act Treatment/Storage/Disposal Facilities	RCRA TSD	0.5 mile	No	0
USEPA	Resource Conservation and Recovery Act Small/Large Quantity Hazardous Waste Generators	RCRA SQG/LQG/ CESQG/ Non-Gen	Subject Property and Adjoining	No	0
USEPA	Federal Institutional/Engineering Control registries	US INST/ENG Controls	Subject Property	No	0
USEPA	Emergency Response Notification System	ERNS	Subject Property	No	N/A
USEPA	Superfund (CERCLA) Consent Decrees	CONSENT	1.0 mile	No	0
USEPA	Records of Decision	ROD	1.0 mile	No	0
USEPA	Mines Master Index	MINES	0.25 mile	No	0

Review of the EDR Radius Map Report indicates that the subject property is not listed in Federal environmental databases searched. The subject property and nearby properties identified within the ASTM standard federal database search radii are detailed below.

SEMS-Archive – SEMS Archive tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that

there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

The subject property is not identified as a SEMS-Archive site. One property within the search radius is identified as a SEMS-Archive site. The identified SEMS-Archive site is located downgradient of the subject property and as such, appears unlikely to represent an environmental concern to the subject property.

6.1.2 State and Local Databases

The table below summarizes the State databases that were searched.

Table 6-2 - New York State and Local Databases Searched

Agency	Listing Name or database Searched	Abbreviation	Search Distance	Target Property Identified	Nearby Properties Identified
NYSDEC	Inactive Hazardous Waste Disposal Sites in New York State	SHWS	1.0 mile	No	0
NYSDEC	Hazardous Substance Waste Disposal Site Study	HSWDS	0.5 mile	No	0
NYSDEC	Solid Waste Facility Register	SWF/LF	0.5 mile	No	0
NYSDEC	Registered Recycling Facilities	SWRCY	0.5 mile	No	0
NYSDEC	Registered Waste Tire Storage Facilities	SWTIRE	0.5 mile	No	0
NYSDEC	Leaking Underground Storage Tank Sites	LTANKS	0.5 mile	No	8
NYSDEC	Petroleum Bulk Storage (PBS)	UST/AST	Subject Property and Adjoining	Yes	0
NYSDEC	Chemical Bulk Storage (CBS)	CBS AST/UST	Subject Property and Adjoining	No	0
NYSDEC	Institutional/Engineering Control registries	INST/ENG Controls	Subject Property	No	N/A
NYSDEC	Voluntary Cleanup Agreements	VCP	0.5 mile	No	0
NYSDEC	Brownfield sites	Brownfields	0.5 mile	No	0
NYSDEC	Major Oil Storage Facilities	MOSF	0.5 mile	No	0
NYSDEC	New York State Spills	NYSPILLS	0.125 mile	Yes	17
NYSDEC	Dry Cleaner Site	Drycleaners	0.25 mile	No	0

Review of the EDR Radius Map Report indicates that the subject property is listed in State environmental databases searched. The subject property and nearby properties identified within the ASTM standard State database search radii are detailed below.

Leaking Underground Storage Tank Sites - The Leaking Underground Storage Tank Sites (LTANKS) database contains a NYSDEC inventory of reported leaking storage tank incidents. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

The subject property is not identified as a LTANKS site. A total of eight LTANK sites, with nine NYSDEC spill files, are identified within the search radius. Two of these sites, Sunrise Garden Apartments and Cumberland Farms were identified approximately 1/8-mile in the up-gradient direction of subject site. Sunrise Garden Apartments has an associated NYSDEC spill file, 9704618, which was reported on July 17, 1997 due to soil contamination identified below a #2 fuel oil tank. Soils were removed and no further action was recommended by the NYSDEC. This spill file was closed on August 14, 1997. Based upon the nature of the spill and its closed status, it is unlikely to affect the subject property. The other up-gradient LTANK site, Cumberland Farms, will be further discussed in the NYSPILLS section.

Each of the remaining six LTANK sites are located cross-gradient or down-gradient of the subject property and have been closed. Based on their location and their closed status, it is unlikely that these LTANK sites have impacted the subject site.

Petroleum Bulk Storage - The SCDHS Petroleum Bulk Storage (PBS) - UST database lists facilities with a petroleum storage capacity of more than 1,100 gallons and less than 400,000 gallons. The SCDHS Petroleum Bulk Storage - AST database lists facilities with registered ASTs.

The subject property is identified as a PBS site. The table below illustrates the tank information, capacity, location, substance, and status.

Tank Number	Capacity	Location	Substance	Status
1	2,000 gallons	UST	Gasoline	Removed 1/1/86
2	1,000 gallons	UST	Gasoline	Not Reported
3	275 gallons	AST	Diesel	Removed 8/31/98
4	Not Reported	Aboveground Container	Chemical Storage	Removed 3/17/98
5	300 gallons	AST	Diesel	Not Reported

Tank 2 was removed in 2010 as discussed in Section 8.2.6 and Tank 4 likely refers to the chemical storage trailer formerly located north of the SMB which historically contained the golf course maintenance chemicals.

The presence of tanks alone does not necessarily represent an environmental concern. Sites with spills or releases will be addressed in the appropriate section.

New York State Spills - The New York State Spills Information Database (NYSPILLS) contains data collected on chemical and petroleum spill incidents reported to NYSDEC since April 1, 1986.

The subject property is identified as a NYSPILLS site. Spill number 05-11071 was opened on December 21, 2005 after a bad check valve was discovered during a line test of the gasoline UST. It is reported that there was a faulty valve. The valve was replaced and the tank was retested and passed. The NYSDEC spill file associated with this tank was closed on March 21, 2006. Based upon the nature of the spill and the closed status of this spill file, it should not affect the subject property.

There are a total of 17 other NYSPILLS sites with 22 NYSDEC spill numbers identified within the search radius, three of which appear to be adjacent to the subject property :

- Spill number 10-04768 was opened on July 27, 2010 as a result of a 1 gallon leak of oil from a pole mounted transformer and cleanup was pending. The spill was closed on June 6, 2011.
- Spill number 11-11813 was opened on January 7, 2012 as a result of a leaking tank in a private residence. Approximately 40 gallons leaked from the tank onto the concrete floor in the basement. The spill was deemed to have only impacted the concrete and was cleaned up; the spill number was closed on January 31, 2012.

- Spill number 15-11062 was opened on February 17, 2016 due to the failure of a transformer and the release of approximately 10 gallons of transformer fluid, deemed to be non-PCB by the nameplate on the transformer. Remediation was performed by a local environmental contractor and the NYSDEC closed spill number 15-11062 on June 6, 2017

Based on the information available in the database report, these sites do not appear to represent an environmental concern to the subject property.

Sixteen spill numbers (under NYSPILLS and LTANKS) appear to be up-gradient of the subject property and relate to a gasoline service station on the north side of Sunrise Highway.

- Spill #90-05927 was reported on August 29, 1990 under the name of Exxon relating to petroleum impact observed in a drywell that was connected to floor drains within the service station. The spill was reportedly remediated by an environmental contractor and the spill was closed on September 14, 1990.
- Spill #90-09311 was opened on November 14, 1990 during a tank removal action that identified 80 cubic yards of contaminated soil. The Suffolk County Department of Health Services was on-site during the removal. The NYSDEC indicated that no further action was required and closed the spill on February 7, 1991.
- Spill #92-02956 was opened on May 29, 1992 as a result of an environmental site assessment that identified volatile organic compound impact to the soil at 189 parts per billion (ppb) and to the groundwater at 5.5 ppb. No additional information was provided and the spill was closed on February 11, 1993. Based upon the concentrations observed, it is likely that the spill was closed due to minimal contamination observed.
- Spill #97-12676 was reported on February 12, 1998 under the name of Tri Venture Construction Company and was a result of a caller complaining that the company was dumping drums and oil in the yard and the ground is reportedly covered with oil. The spill was closed September 23, 1998. Based upon the name of the company and the description of the spill, this spill is likely incorrectly mapped due to incomplete address information.
- Spill #00-01096 was opened on April 19, 2000 as a result of an environmental assessment which identified MTBE and some BTEX contamination in one groundwater sample. Three soil borings were reportedly conducted and were clean. No additional information was provided and the spill was closed on August 23, 2005.

- Spill #06-09728 was opened on November 26, 2006 as a result of a release of approximately 5 gallons of gasoline from the dispenser pump to the concrete pad due to a customer defeating the pump's safety mechanism. The spill was cleaned and NYSDEC required no further action. The spill was closed on November 27, 2006.
- Spill #12-02591 was reported on June 15, 2012 under the name of Cumberland Farms. The spill was opened as a result of a tank test failure where liquid was identified in the interstitial space of an 8,000 gallon gasoline tank, potentially due to a loose bung. The bung was tightened and the tank was retested and passed. The spill was closed on October 19, 2012.
- Nine additional spill numbers were assigned to the site, each the result of water entering the tank sump, and typically the result of a weather event. Each time, an environmental contractor pumped out the sump and each spill number was closed.

Based upon the information provided in the spill reports, the spills are unlikely to affect the subject property.

Of the remaining NYSPILL sites, several appear to be mapped incorrectly due to incomplete address information, are minor spills related to motor vehicles on Sunrise Highway, or are located down-gradient or cross-gradient of the subject property. Each of these NYSPILL sites have been closed by NYSDEC, and as such appear unlikely to represent an environmental concern to the subject property.

6.1.3 EDR Databases

The table below summarizes the EDR databases that were searched.

Table 6-3 - Additional Databases Searched

Agency	Listing Name or database Searched	Abbreviation	Search Distance	Target Property Identified	Nearby Properties Identified
EDR	Manufactured Gas Plants	MGP	1.0 mile	No	0
EDR	Historical Drycleaners	HDC	0.25 mile	No	0
EDR	Historical Auto Station	HAS	0.125 mile	No	2

Review of the EDR Radius Map Report indicates that the subject property is not listed in EDR proprietary databases searched. The subject property and nearby properties identified within the EDR proprietary database search radii are detailed below.

EDR US Historical Auto Stations – EDR has searched national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers.

The subject property is not identified as a HAS site. Two properties within the search radius are identified as HAS sites. Of the two identified HAS sites, one appears to be located cross-gradient of the subject property and as such, appears unlikely to represent an environmental concern to the subject property. The other identified HAS site is located upgradient of the subject property. Ed Mir Service Station, located at 4909 Sunrise Highway, has been operating from approximately 1982 until at least 2014 and is the site of the Cumberland Farm / Exxon station discussed in the NYSPILLS section.

6.1.4 Orphan Sites

Orphan sites are properties, that due to an inadequate or incomplete address in government databases or in base map files, are not able to be geographically located (i.e. mapped or geocoded). This can occur for several reasons; no street number or street name in address given; the street address is given only as a P.O. Box; or when inconsistencies exist in the address (street number does not exist in the city / zip code given).

Four orphan sites were identified in the EDR report. PWGC performed a cursory review of the address listed. It does not appear that the subject property or neighboring properties are identified in the orphan summary.

6.2 Vapor Encroachment

PWGC performed a Tier 1 Vapor Encroachment Screening for the subject property in accordance with ASTM E2600-15, Vapor Encroachment Screening on Property Involved in Real Estate Transactions. In accordance with ASTM E2600-15, the default Area of Concern (AOC), adjusted to account for the groundwater flow direction in the vicinity of the subject property, is defined as follows:

Direction Relative to Subject Property	Petroleum Impacted Sites AOC Radius	Contaminants of Concern Impacted Sites AOC Radius
Up Gradient	528 feet	1760 feet
Cross Gradient	165 feet (LNAPL) 95 feet (dissolved)	365 feet
Down Gradient	100 feet (LNAPL) 30 feet (dissolved)	100 feet

PWGC evaluated sites identified in Federal and State databases (see Section 6.1) located within the adjusted AOC radii for the potential for petroleum impact or other contaminants of concern, such as perchloroethylene, to be present. The following sites were identified within the adjusted AOC:

- Subject property
- Upgradient gas station

Based on these sites' lack of apparent impact present and/or closed status, PWGC has determined that neither are likely to represent a VEC at the subject property.

A copy of the Tier 1 Vapor Encroachment Screening is included as **Appendix H**.

6.3 Additional Environmental Record Sources

6.3.1 Freedom of Information Act Requests

Freedom of Information Act (FOIA) requests were sent to the United States Environmental Protection Agency, Region 2 (USEPA), the New York State Department of Environmental Conservation, Region 1 (NYSDEC), and the Suffolk County Department of Health (SCDHS). Copies of FOIA requests are included in **Appendix I**.

As of the date of this report, responses to FOIA requests have not been received, except as noted below. As responses were not provided within the allotted due diligence period, the records were deemed not to be "reasonably ascertainable" at this time. Should records become available at a later date, pertinent information will be forwarded as an addendum upon receipt.

<u>NYSDEC FOIA Response</u>

- Relating to the on-site spill #05-11071
    - A letter from the NYSDEC dated January 3, 2006 to John Genovesi, the owner of Island Hills Golf Club at the time, indicating that a line associated with a gasoline tank failed a Petrotite systems test on December 21, 2005. This resulted in the NYSDEC opening spill number 05-11071. The letter advised that Mr. Genovesi was required to excavate and investigate the condition of the piping and surrounding soil. This spill was addressed in the NYSPILLS section of Section 6.1.2.

- On February 22, 2006, the NYSDEC received a report that the faulty check valve in the gasoline tank had been removed and the tank was converted to a European system. The system passed a re-test on February 15, 2006; no soil contamination was observed.
- The NYSDEC issued a letter to Mr. Genovesi on March 31, 2006 indicating that the documentation provided pertaining to the removal of the faulty valve and re-test of the tank was satisfactory and that no further requirements were warranted at the time.

Documents provided by the NYSDEC can be found in **Appendix F**.

6.3.2 Publicly Available Information

Information regarding the subject property available on the commercial real estate website www.propertyshark.com (an aggregator of publicly available real estate information) was reviewed to identify pertinent information. No indication of environmental issues was identified. Copies of publicly available information are included in **Appendix F**.

7.0 SITE RECONNAISSANCE

7.1 Methodology and Limiting Conditions

Mr. Ryan Morley of PWGC performed the site inspection on Tuesday, May 22, 2018. Weather conditions during the inspection were sunny with a temperature of approximately 65° Fahrenheit. The inspection was conducted with Mr. Bryan Devaux of Rechler Equity.

The site inspection consisted of an inspection of the interior portions of the existing buildings, followed by inspection of the exterior portions of the property.

7.2 Aboveground Storage Tanks (AST)

PWGC identified the following ASTs:

- A 550-gallon AST located off the northeast corner of the pro-shop building. It appeared that the tank was approximately 50% full with #2 fuel oil, based on the reading of the gauge.
- A 275 gallon AST located in the basement of the north residential house that was half full of #2 fuel oil.
- A 275 gallon AST located in the basement of the south residential house used for #2 fuel oil; the volume of oil within the AST was not determinable.
- According to Mr. Devaux, a 2,000 gallon fuel oil AST was previously located north of the SMB. The AST is no longer present; however, the concrete pad with surrounding ballasts is still present. There was no staining or odor observed in this area. A 275 gallon AST was also reportedly located adjacent to the SMB and some minor staining was observed on the concrete sidewalk where it was previously located. There was no odor and the nearby vegetation did not appear to be distressed; therefore, this is considered a *de minimus* condition.

7.3 Underground Storage Tanks (UST)

PWGC did not identify evidence of an existing UST, such as fill ports or vent pipes.

7.4 Hazardous and Non-Hazardous Chemical Storage

PWGC observed chemical storage consisting of the following:

- Antifreeze and lube oil were observed in the SMB, stored in the original manufacturer's packaging (1 gallon size containers). No staining or leaks were observed.

According to Mr. Devaux, a chemical storage trailer was previously located north of the SMB on concrete and contained the golf course maintenance chemicals. The storage trailer is no longer present, no staining was observed in the area where the storage trailer was previously located.

From the historic reports (discussed in Section 8.2), the following products were previously identified in the SMB or chemical storage container:

Product	Product
Primo Maxx	Endorse powder fungicide
Banner Maxx	Manzate pro-stick fungicide
Micro $CaSO_4$	Dylox 6.2 insecticide
Embark	Provaunt insecticide
Merit 75 WSP	Criterion insecticide
Bayleton 50 WSP	Gypsum
Compass	Imidacloprid insecticide
Azoxystrobin	Solocal Calcitic Lime
Daconil Ultrex	Various fertilizers
26 GT	Jacklin seed
Barricade .29	Chlorothalonil DF fungicide
Touché EG	Germinex Talc TG (soap)
Dacon Ultrex turf care fungicide	Lescosol Spray Tank cleaner
Mallet 75 WSP insecticide	

7.5 Waste Generation, Storage, and Disposal

PWGC observed evidence of waste generation, storage, or disposal consisting of the following:

- Scattered litter from general waste of a *de minimus* nature

7.6 Polychlorinated Biphenyls (PCBs)

PWGC did identify an electrical transformer in the vicinity of the club house and the private well. The transformer at the club house appeared to be in good condition with no evidence of leaks, but there was some minor staining beneath it, potentially due to kitchen grease based upon the proximity of the transformer to the kitchen. The transformer near the private well appeared to be in good condition with no evidence of spills or leaks. An inspection of the transformers did not indicate if the transformers contained PCBs. As per the local utility, PCB transformers have generally been removed from service. If there was a leak, it would be the responsibility of the local utility to remediate.

7.7 Additional Site Conditions

The following is a summary of visual and/or physical observations made by PWGC at the time of the site inspection. Photographs of pertinent observations are included in **Appendix A**.

Table 7-1 - Additional Site Conditions

Condition	Identified
Interior drains, trenches or sumps.	Yes[1]
Interior stains or corrosion	Yes[2]
Unusual odors	No
Interior pools of liquid	No
Stained Soils or Pavement	No
Stressed Vegetation	No
Indications of solid waste disposal	No
Exterior ponds, pits, or lagoons	No
Wastewater or storm water discharge/disposal	Yes[3]
Oil water separators/clarifiers	No
Septic Systems/Cesspools	Yes[4]
Wells (Drinking water, monitoring wells, agricultural/ irrigation wells, or process water wells)	Yes[5]
Petroleum or natural gas pipelines or easements	No
Other	No

1 – One floor drain was observed in the kitchen area of the club house. No chemical storage was observed in the vicinity of the drain; no staining or other evidence of spills or improper discharges was observed in the vicinity of the drain. A maintenance pit was observed in the middle of the garage of the SMB. The pit cover could not be opened, staining observed near the pit appears to be from water. There was an equipment vault near the private well; there was no evidence of staining in the vicinity of this vault. Trenches were observed in the concrete floor of the pro-shop that appear to be related to the sanitary system. In the club house, a sump was identified next to the hot water heater; no staining was observed around the sump.

2- Some dark staining was observed on the concrete floor in the SMB next to the lawn mower; the staining appeared to be related to maintenance of the equipment. No cracks in the concrete were observed in the area of this staining; therefore, this is considered a *de minimus* condition.

3 – Several stormwater drains were observed throughout the subject property. The majority of the stormwater drains were located in the club house parking lot or near buildings. Two stormwater drains were also observed in low points of the golf course. No staining or other evidence of spills or improper discharges were observed in

the vicinity of the drains; however, the potential for run-off impacted with the golf course maintenance chemicals exists for the two stormwater drains in the golf course.

4 – Septic systems were identified in relation to the club house, the pro-shop, the CMB, the SMB, the pool house, and the residential houses.

5 – A private well was observed on the west side of the golf course. A pressure equilization tank was observed within the equipment vault near the private well. The well system appeared to be on, powered by a transformer. The transformer appeared to be in good condition with no evidence of spills or leaks.

7.8 Neighboring Properties

PWGC performed a cursory inspection of the neighboring properties from the subject site and public right of ways. The neighboring properties are primarily used for single family residential purposes and an apartment complex. Potential environmental concerns were not observed at neighboring properties

8.0 INTERVIEWS

8.1 Current Owner/Occupant

PWGC interviewed Mr. Bryan Devaux, the current representative of the current property owner. Mr. Devaux did have knowledge of environmental issues at the site. Information provided by Mr. Devaux has been incorporated into this report along with the below historic environmental reports, where appropriate.

8.2 Previous Environmental Reports

Several previous environmental reports have been provided and are summarized below:

8.2.1 Phase I Environmental Site Assessment by PWGC - Parcels 1 and 2 (April 2006)

The 2006 Phase I encompassed the lots associated with the club house parking lot (not the building) and with the two residential houses. The following items of note were identified in the Phase I, including one REC:

- Asbestos was likely observed in the south residential house and potentially exists in the northern residential house, as well.
- Several sanitary structures were observed in the parking lot of the club house. An evaluation of the sanitary system revealed that it consists of two separate systems: one system consists of a single leaching pool and the second system consists of septic tank, a distribution tank, and five primary cesspools. The sanitary system was identified as a REC.
- In the basement of the northern residential property, adjacent to a boiler, a 4-inch diameter hole was present in the concrete floor. It appeared that this drain was used to discharge water from the boiler during maintenance.
- An inspection of the southern residential property revealed the presence of gas and oil storage associated with the lawnmower and yard equipment. A small area of oil staining was present. PWGC also observed two 5-gallon pails that looked as if they may have contained oil.

8.2.2 Phase II Environmental Site Assessment by PWGC – Parcels 1 and 2 (April 2006)

To address the REC identified in the preceding Phase I, sampling of the club house's two eastern sanitary systems was conducted in February 2006. Samples were collected from the one standalone leaching pool and from three of the primary leaching pools of the second system and analyzed for SCDHS SOP 9-95 criteria; the samples from the larger system were also analyzed for pesticides and herbicides. Analytical results indicated that one of the primary leaching pools (S-4) of the larger system contained exceedances of SCDHS Action Levels for volatile organic compounds (VOCs) and copper, indicating that remediation was required. The highest VOC

concentration was 1,2-dichlorobenzene at 1,728,304 µg/kg. In addition, S-4 also contained detectable concentrations of two pesticides; however, the concentrations were less than the now defunct NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives (RSCOs).

Based upon the concentrations observed in S-4, additional sampling was conducted in March 2006 to investigate the three other primary leaching pools in the larger system and to investigate groundwater quality in the vicinity of S-4. Analytical results from the three leaching pools were less than SCDHS Action Levels for VOCs, semi-volatile organic compounds (SVOCs), and metals, pesticides were less than NYSDEC TAGM #4046 Clean-Up Objectives, and herbicides were non-detect. Two groundwater samples were collected approximately 10 feet downgradient of S-4; groundwater was encountered approximately 20 feet below grade. Groundwater analytical results contained several VOCs in exceedance of NYSDEC Ambient Water Quality Standards, particularly several chlorobenzene compounds, acetone (a typical laboratory contaminant), benzene, and toluene – the maximum concentration was 72 µg/L of chlorobenzene. PWGC recommended remediation of S- 4 and indicated that, based upon the relatively low exceedances in the groundwater, no further action would be warranted past removing the source material in S-4.

8.2.3 Phase I Environmental Site Assessment by PWGC – Parcels 4, 6, 7, and 8 (June 2006)

An additional Phase I was prepared that covered the golf course and its associated buildings. The Phase I ESA indicated that the site was first developed as a golf course in 1927 and the current pool house was the original club rental / caddy building. Briefly during World War II, the golf course was shut down and the property was used as a paratrooper training landing zone. Following the war, the property resumed its operation as a golf course.

- Club house
    - Three additional sanitary systems are located on the north side of the building for the bar/restaurant and two locker rooms (it was later determined during the July 2006 Phase II that there were only two sanitary systems located on the north side of the building). The two sanitary systems on the east side of the building were previously documented under the April 2006 Phase I ESA.
    - A transformer pad located south of the club house contained staining. Transformers are typically owned and maintained by the local power authority.

- Pro-shop
    - Manholes were observed south of the building and a sanitary vent along the center of the building, indicating the potential for two sanitary systems to be associated with the pro-shop.
    - A 550 gallon fuel oil AST was located east of the building and was in direct contact with the soil. No signs of leaks were observed.
    - Evidence of a potential UST was observed.
- SMB
    - A below grade sanitary system is located south of the building. Staining was observed in a slop sink, indicative of improper discharges.
    - A maintenance pit was observed in the south garage bay.
    - A 300 gallon diesel AST within secondary containment was identified. The AST appeared to be in good condition.
    - A 1,000 gallon gasoline UST was identified near the building.
    - A chemical storage trailer was located north of the SMB.
- CMB
    - A sanitary system with one structure at grade was observed northeast of the building.
- Pool house
    - A manhole potentially related to a sanitary system was identified on the north side of the building.

Stormwater drains are located in the parking lots near the club house, the pool house, the SMB, and two stormwater drains were identified within the golf course.

Throughout the buildings, numerous typical cleaning supplies were identified. The majority of the chemical storage was located in the SMB and the storage container located north of the building. The chemical storage consisted mainly of fertilizers, fungicides, plant growth regulators, motor oil, lubrication oil, and waste oil. Storage of 5 gallon pails of chlorine were observed in the pool house pump room.

A debris pile was observed in a wooded section between Holes 1 and 2. The remains of several metal 55 gallon drums were observed, most of which were in poor condition and could not hold liquid. A plastic 55 gallon drum

was observed which contained an unknown liquid. Drum labels were not observed. Another two debris piles were observed in the vicinity of Holes 13 and 16 that contained soil and landscaping.

8.2.4 Phase II Environmental Site Assessment by PWGC (July 2006)

A Phase II ESA was performed to assess general site conditions and to address RECs identified in the June 2006 Phase I. Phase II activities included collecting soil samples across the golf course from shallow and deep depths and near petroleum storage tanks, collection of groundwater samples, and sampling of on-site sanitary and stormwater systems.

- Club house
    - It was previously believed that three sanitary systems were located north of the club house, but it was determined that there were only two systems. The northeastern sanitary system contained a septic tank, distribution box, and four below grade leaching structures. At the time, the below grade structures could not be uncovered. A sample was collected from the septic tank that contained an exceedance of SCDHS Action Levels for chlorobenzene. Uncovering the leaching structures and sampling them and remediating structures exceeding Action Levels was recommended.
    - A soil sample was collected adjacent to the transformer and analyzed for PCBs; results were non-detect. No further action was necessary for the transformer and pad oil staining.
- Pro-shop
    - Analytical results from a soil sample collected adjacent to the 550 gallon AST contained detectable concentrations of some SVOCs; however, concentrations were less than NYSDEC CP-51 Soil Cleanup Levels for fuel oil contaminated sites.
    - The sanitary system was sampled for SCDHS criteria and pesticides. Detectable concentrations of SVOCs, metals, and a pesticide were identified; however, at concentrations less than SCDHS Action Levels.
    - An additional sanitary system may have been identified in the golf cart storage area which could not be further investigated at the time.
    - The suspected UST was located and estimated to be 550 gallons.
    - A soil sample was collected from mounded soil east of the pro-shop and analyzed for VOCs, SVOCs, metals, pesticides, and herbicides. Six compounds were identified that exceeded NYSDEC TAGM #4046 RSCOs; however, when compared to present day standards, only

chlordane, dieldrin, and mercury exceed NYSDEC Part 375 standards for Unrestricted Use, Restricted Residential Use, and/or Protection of Groundwater.

- Golf course
  - The two stormwater drains on the golf course were sampled for SCDHS SOP 9-95 criteria, pesticides, and herbicides. Analytical results were less than SCDHS Action Levels and RSCOs / Part 375 standards.
  - Four soil samples were collected around the debris pile between Holes 1 and 2 and analyzed for VOCs, SVOCs, metals, pesticides, and herbicides. Chlordane, heptachlor epoxide, and mercury exceeded RSCOs / Part 375 standards.
  - One sample was collected at the landscaping debris pile between Holes 13 and 16 and analyzed for the above listed parameters. Several SVOCs exceeded RSCOs; however, they are less than Part 375 standards. Heptachlor epoxide and mercury exceeded both RSCOs and Part 375 standards.
  - Twenty-four surface soil samples were collected, mostly on the fairways as the greens were inaccessible. Samples were analyzed for the above listed parameters. Of the 24 samples collected, 23 contained an exceedance of RSCOS with heptachlor epoxide, chlordane, and/or mercury the main contaminants. When compared to the present day Part 375 standards for Restricted Residential Use, only five of the samples exceed standards.
  - Six groundwater samples were collected from around the site to determine general groundwater quality. Samples were analyzed for VOCs, SVOCs, metals, pesticides, and herbicides. Analytical results were less than AWQS with the exception of some metals in the unfiltered samples, likely due to the result of turbidity.
- CMB
  - Due to a collapsing concrete cover, the sanitary system was not sampled.
- SMB
  - A soil sample collected from the maintenance pit was sampled for VOCs, SVOCs, metals, pesticides, and herbicides. Analytical results for one pesticide exceeded RSCOs, but is less than the Part 375 standards. Removal of the sediment and sealing of the pit was recommended.
  - The slop sink drain was traced to a below grade sanitary structure south of the SMB. The structure was 1 foot below grade, uncovered, and sampled for SCDHS SOP 9-95 criteria and

pesticides and herbicides. Two SVOCs, one pesticide, and mercury were detected at concentrations exceeding RSCOs / Part 375 standards.

- The two stormwater drains were sampled for the same parameters; one of them contained exceedances of two pesticides and mercury exceeding RSCOs / Part 375 standards.
- One soil sample was collected adjacent to the 1,000 gallon gasoline UST. The sample was collected from 10 to 12 feet below grade and analyzed for VOCs and SVOCs, limited to the now defunct NYSDEC TAGM 4046 STARS list which is similar to the present day NYSDEC CP-51 list. Analytical results were non-detect.
- Two surface soil samples were collected near the chemical storage trailer and analyzed for SCDHS SOP 9-95 criteria, pesticides, and herbicides. One pesticide and mercury were detected at concentrations slightly exceeding RSCOs, mercury slightly exceeded Part 375 Unrestricted Use.

- Pool house
  - The sanitary system is located southwest of the building and consists of a single leaching pool. It was sampled for SCDHS 9-95 criteria, pesticides, and herbicides. Analytical results were less than Action Levels and RSCOs.

8.2.5 UIC Remediation by F&E (2007)

To supplement PWGC's April 2006 Phase II, additional sampling of the sanitary and stormwater drains in the parking lot east of the club house was conducted on August 7, 2007 by Fruedenthal & Elkowitz Consulting Group, Inc (F&E) under the oversight of SCDHS. F&E characterized and collected sediment samples from thirteen sanitary and stormwater drains. In addition, it was noted that there was a pipe in one drain (S-11) that was routed towards the southwest, indicating that a below grade pool may exist. Samples were collected from the thirteen at grade structures for typical SCDHS SOP 9-95 analytes and analytical results indicated that eight structures required remediation, including S-4 previously sampled by PWGC; S-11 did not require remediation. In general, exceedances of the stormwater drains were typically from SVOCs and/or metals and from the sanitary system were VOCs and/or metals.

From September 14, 2007 to September 24, 2007, the SCDHS observed F&E direct the remediation of the sanitary and stormwater systems in the parking lot east of the club house. A total of 5,000 gallons of liquids were removed from the sanitary system, 6,500 gallons of liquids were removed from the stormwater system, and

56.81 tons of sediments were removed from the systems. Endpoint samples were collected from leaching structures; the scanned analytical data tables are partially illegible; however, F&E prepared a Summary of UIC Closure Activities report, dated November 2, 2007 for submission to SCDHS. On April 1, 2008, the SCDHS provided a letter indicating that satisfactory remediation of the concerned areas of contamination had been accomplished and that no further extraction was mandated.

8.2.6 Removal of UST by VIP (2010)

On June 17, 2010, VIP Plumbing and Heating Contracting, Inc. (VIP) contracted with C2G Environmental Consultants for the removal of a 1,000-gallon gasoline UST from the subject property, in the vicinity of the SMB. Approximately 65 gallons of gasoline were pumped out of the UST and properly disposed of off-site. Upon removal of the UST, the sidewalls and bottom of the tank excavation were field screened for the presence of VOCs using a photoionization detector (PID). No positive readings were displayed with the PID and no olfactory or visual evidence of soil contamination was observed. The UST was inspected for cracks and holes; none were observed. A representative from the SCDHS was on-site to oversee the removal.

A composite soil sample was collected from the sidewalls and bottom of the excavation and analyzed for VOCs and SVOCs, limited to the now defunct NYSDEC TAGM #4046 STARS lists. Analytical results were non-detect and no further action regarding that UST was requested.

8.2.7 Phase I Environmental Site Assessment by PWGC (2014)

In December 2014, PWGC conducted a Phase I ESA at the subject property. This Phase I covered only Lot 15.1, the golf course. The following items of note were identified in the Phase I that have not been previously discussed:

- Several areas of soil and debris stockpiles were observed. The soil stockpile, which includes top soil, sand and recycled concrete aggregate (RCA), is located along the northern property line near the tee box for hole 10. There were no signs of staining or improper dumping in the location of these stockpiles. Debris and organic brush piles were identified on the western and eastern property lines. These debris piles were mainly organic matter (leaves, tree branches, wood, etc.). There was no evidence of improper dumping in these organic stockpiles.
- Evidence of the UST at the pro-shop was still present, indicating that the UST had not been removed.

8.2.8 Site Remediation by PWGC (October 2015)

Several RECs identified over the years were addressed in October 2015.

- Pro-shop
    - The suspected 550 gallon UST was excavated. The UST was located approximately 6 inches below the concrete slab and was determined to be 330 gallons. There were no holes identified in the UST and there was no evidence of contamination beneath the UST. A soil sample was collected 4 feet below grade and analyzed for VOCs and SVOCs. Analytical results were less than Soil Cleanup Levels in NYSDEC CP-51 for fuel oil contaminated sites. No further action was recommended for this REC.
    - The potential second sanitary system was investigated. The below grade piping near the sanitary vent was uncovered and it was traced towards the previously known system, indicating that there was not a second system present. No further action was recommended for this REC.
- CMB
    - The UIC structure located northeast of the CMB was sampled for SCDHS SOP 9-95 criteria. Analytical results were less than SCDHS Cleanup Objectives; therefore, no further action was recommended for this REC.
- Club house
    - A geophysical survey was conducted in the area of the suspected four leaching pools associated with sanitary system 3 (SS-3 located to the northeast of the building). The geophysical survey and several test pits determined that there were only three leaching pools. The septic tank and three leaching pools were pumped out and sediments removed. There were no cracks or holes observed in the septic tank. Approximately 1 to 2 feet of sediments were removed from the leaching pools and endpoint samples were collected for VOCs, SVOCs, and metals (SCDHS SOP 9-95 criteria) analysis. No exceedances of SCHDS Cleanup Objectives were identified. No further action was recommended for this REC.
    - The primary leaching pool of sanitary system 1 (SS-1, located to the northwest of the building) was also remediated. Although concentrations at the time it had been previously sampled did not exceed SCDHS Action Levels, concentrations were approaching the Action Levels. Approximately 2 to 3 feet of sediments were removed from the leaching pool and an endpoint

sample was collected for VOCs, SVOCs, and metals (SCDHS SOP 9-95 criteria) analysis. No exceedances of SCDHS Cleanup Objectives were identified.

- SMB
    - The primary leaching pool was remediated by removing 2 to 3 feet of sediments and collection of an endpoint sample for VOCs, SVOCs, and metals (SCDHS SOP 9-95 criteria) analysis. The two stormwater drains in the adjacent parking lot were also remediated by removing 2 to 3 feet of sediments even though only one had previously contained an exceedance; endpoint samples were collected for the same criteria. No exceedances of SCHDS Cleanup Objectives were identified. No further action was recommended for this REC.
    - The maintenance pit in the garage was remediated by removing approximately 1 foot of sediment in the pit. A drain at the bottom of the pit measuring approximately 1.5 feet long by 1.5 feet wide was uncovered and an additional 1.5 feet of soil was removed from the drain. An endpoint sample was collected for VOCs, SVOCs, and metals (SCDHS SOP 9-95 criteria) analysis. No exceedances of SCHDS Cleanup Objectives were identified and the drain at the bottom of the pit was sealed. No further action was recommended for this REC.

A total of 19,200 gallons of liquids, 13.87 tons of sanitary system sludges, and 12.92 tons of storm drain sediments were removed from the site and properly disposed of.

8.2.9 Phase I Environmental Site Assessment by Partner (2017)

In September 2017, Partner conducted a Phase I ESA. Conclusions in this report consist of the following:

- Based on the information gathered from PWGC's Phase I and Phase II inspections in 2006 and 2007, Partner concludes that the former use of agricultural chemicals is expected to represent a significant environmental concern.
- Partner agrees that further management of onsite soils will be required if the subject property use changes, and that vertical mixing would be the most cost-efficient method for the amount of soil located at the site.
- A site management plan should be developed and approved by regulatory agencies; perimeter air monitoring is usually required during projects of this scope, and soil sampling throughout the process will be necessary.

- Partner agrees that, prior to construction activities, all remaining environmental structures (stormwater drains and cesspools) should be closed and sampled as appropriate. Any remaining ASTs should be cleaned and properly disposed of. Soil beneath each AST should be sampled if there is any indication of staining, leakage, or other visual signs of possible AST failure.

8.3 Local Government Officials

Based upon the site history, interviews with government officials to obtain additional information are not warranted at this time.

9.0 CONDITIONS OUTSIDE THE SCOPE OF ASTM 1527-13

9.1 Wetland Delineation

Based on review of the EDR Radius Map Report, which includes State and Federal wetlands, it appears that State and/or Federal wetlands are not present on the subject property. Based on review of the NYSDEC Environmental Resources Mapper, the site does not appear to be located within a wetlands or a wetlands checkzone.

Based on review of the EDR Radius Map Report, it appears that the nearest State or Federal wetland is Green Creek, located approximately ¼ of a mile south-southeast of the subject property.

9.2 Radon Risk Evaluation

Radon is a colorless, radioactive; inert gas formed by the decay of radium and may be present in soils and rocks containing granite, shale, phosphate and pitchblende. The USEPA's "Map of Radon Zones for New York State," September 1993 indicates that Suffolk County is not a radon risk area. The EDR report provides information from the New York State Department of Health radon survey which indicates that the average result for sites tested in Suffolk County is 0.670 Pico curies per liter (pCi/L) in the living area, which is below the USEPA radon action level of 4 pCi/L, and 100% of sites tested in Suffolk County were below the action level of 4 pCi/L in the living area.

9.3 Asbestos

PWGC observed evidence of potential asbestos containing material (ACM) in the residential houses. Based on the apparent age of the buildings, it is possible that ACM is present in each of the on-site buildings.

9.4 Lead-Based Paint (LBP)

PWGC did not identify evidence of potential lead based paint at the site. Based on the apparent age of the buildings, it is possible that lead based paint/additional lead based paint is present.

9.5 Mold

PWGC did visually observe significant sources of mold at the site during site reconnaissance. There had been water damage throughout the buildings associated with the golf course due to the site being vacant for an extended period of time. As redevelopment plans for the property include demolition of the existing on-site structures, the presence of mold is not a concern.

10.0 FINDINGS AND OPINIONS

Based upon reconnaissance of the subject and surrounding properties, interviews and review of historical records and regulatory agency databases, the following potential RECs have been identified:

Onsite

- Historic use as a golf course.
- Presence of out-of-service ASTs and staining
- Onsite sanitary system and storm drains
- Subject property is listed in the NYSPILLS database.

Offsite

- None

Potential RECs identified at the subject property were evaluated to determine whether items initially suspected to be RECs are in fact RECs. Evaluation of potential RECs are as follows:

- The site has a long history of being an active golf course. Chemicals such as pesticides, herbicides, and fertilizers have been used at the site; the majority of the chemical storage and mixing was conducted by the SMB. Samples from previous site assessments reveal that the surface soils are impacted with metals and pesticides, predominantly mercury, chlordane, and heptachlor epoxide. Debris piles and mounds of soil were historically observed and sampled. During the recent site inspection, these piles and mounds were not identified; however, the presence of overgrown vegetation may have made inspection of these piles difficult. As the property no longer operates as a golf course and redevelopment of the property is contemplated, these conditions represent a REC.
- Three ASTs were identified at the site: one 275 gallon AST located in the basement of each residential house and one 550 gallon AST located adjacent to the pro-shop and in direct contact with the soil. The ASTs were in varying conditions from good to fair and there was no evidence of leaks from the ASTs. The ASTs are still partially full of liquids and over time, the ASTs, without proper maintenance may fail. The presence of these ASTs represents a REC.
- Several of the onsite sanitary and stormwater systems were successfully remediated in 2007 and in 2015. The golf course ceased operations shortly after the 2015 remediation, so the structures remediated in 2015 are unlikely to be impacted; however, a significant amount of time has passed since the 2007 remediation occurred of the structures in the club house parking lot. Continued use after the remediation may have resulted in additional impact to that system; therefore, the presence of the

sanitary and stormwater drains in the parking lot of the club house and the two stormwater drains on the course represent a REC.

- The subject property is identified as a NYSPILLS site. Spill number 05-11071 was opened on December 12, 2005, due to a bad check valve observed during a tank test. No contamination was found, the check valve was replaced, and the tank passed a new test. The NYSDEC closed spill number 05-11071 on March 21, 2006; therefore, this represents a HREC.

11.0 CONCLUSIONS AND RECOMMENDATIONS

PWGC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 for the subject property. There were no exceptions to, or deletions from, this practice except as noted in Section 12.0 of this report. PWGC evaluated the findings associated with the subject property and identified three RECs and one HREC with respect to the subject property.

Based on the identified RECs, PWGC recommends a Phase II ESA be performed at the site. The Phase II ESA should include:

- General characterization of surface soils across the golf course to determine the extent of impact from the site's historic operation as a golf course. Samples should be analyzed for a minimum of pesticides, metals, and herbicides. Preparation of a Soil and Materials Management Plan may be appropriate to document the procedures for properly handling shallow soils and soil from the debris pile if the site is to be redeveloped.
- The stormwater and sanitary systems should be sampled, remediated if necessary, and decommissioned with SCDHS and EPA as they are no longer in service as part of the redevelopment of the property.
- The ASTs should be cleaned and removed from the site as part of the redevelopment of the property.

Although not a part of the ASTM E1527-13 scope, the following additional site concerns must be considered:

- Based on the apparent age of the buildings at the site, it is possible that ACM are present within the structures. PWGC recommends that, prior to demolition or renovation of the buildings, a proper asbestos survey be performed, and identified ACM properly abated.

12.0 DEVIATIONS

This Phase I ESA was conducted in accordance with the scope and limitations of the ASTM Standard E 1527-13 (Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process) and 40 CFR Part 312 (Standards and Practices for All Appropriate Inquiry; Final Rule). Excluding data gaps identified in Section 2.8 and additional services outlined in Section 9.0, there were no deviations or deletions from this practice.

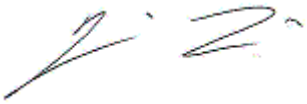
13.0 REFERENCES

All Appropriate Inquiry, Final Rule, 40 CFR Part 312.

Standard practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Standard E 1527-13.

14.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

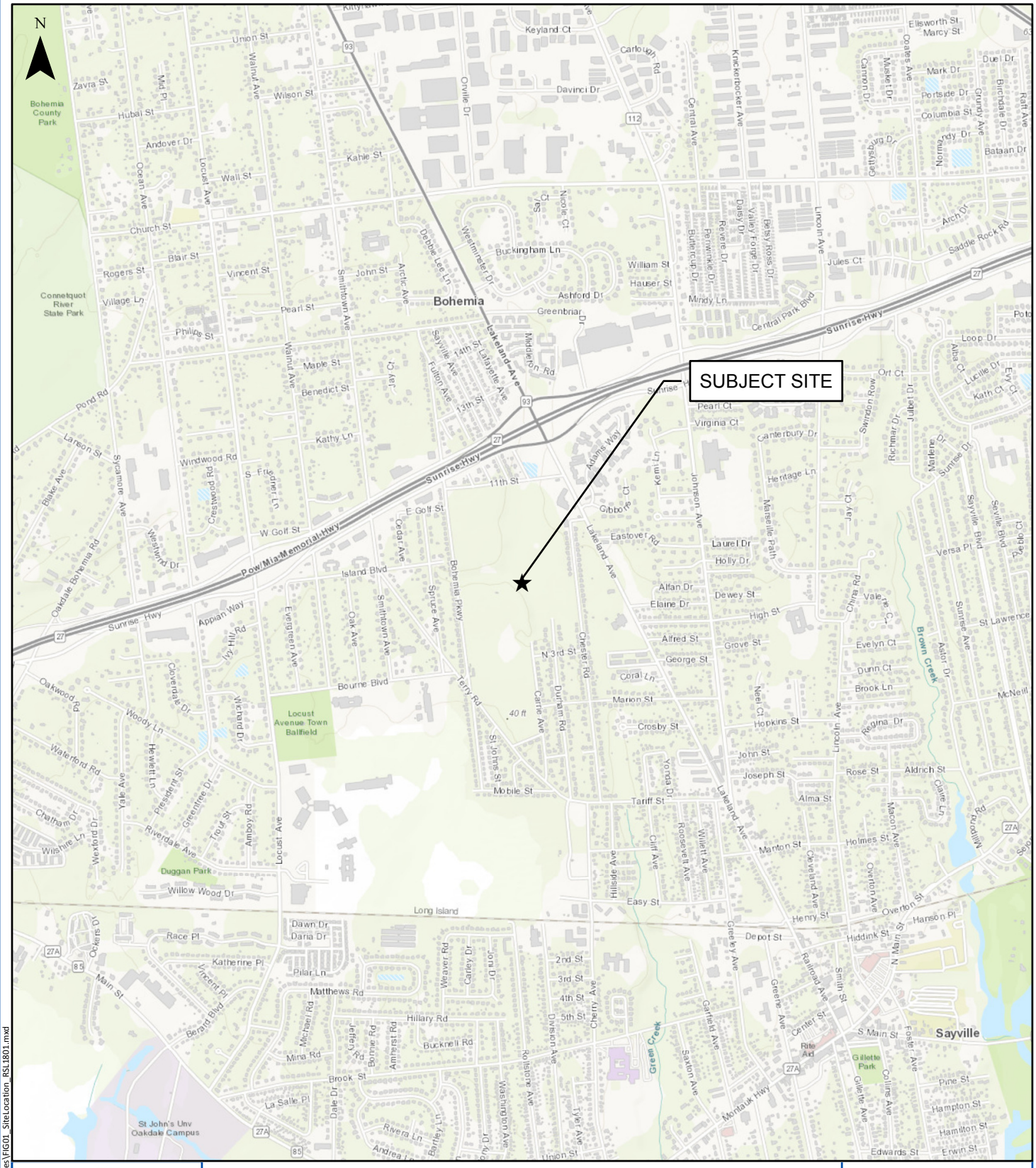
I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312. I have the specific qualification ns based on education, training and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.



Jennifer Lewis, PG
Senior Project Manager

Report Completion Date: June 19, 2018

FIGURES



SITE LOCATION

458 Lakeland Ave
Sayville, NY

Miles
0 ¼ ½ ¾ 1

PWGC
Strategic Environmental and Engineering Solutions
P.W. GROSSER CONSULTING, INC.
630 Johnson Avenue, • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

Project:	RSL1801
Date:	5/22/2018
Designed by:	JLL
Drawn by:	TS
Approved by:	JLL
Figure No:	1

Document Path: W:\Projects\M-R\RSL1801\mapfiles\FIG01_SiteLocation_RSL1801.mxd

Document Path: W:\Projects\M-R\RSL\1801\mapfiles\FIG02_SitePlan_RSL1801.mxd

PWGC

Strategic Environmental and Engineering Solutions

P.W. GROSSER CONSULTING ENGINEER AND HYDROGEOLOGIST, P.C.

630 Johnson Avenue. • Suite 7
Bohemia • NY • 11716-2618
Phone: (631) 589-6353 • Fax: (631) 589-8705
E-mail: INFO@PWGROSSER.COM

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	RSL1801	Designed by:	JLL
Date:	6/8/2018	Drawn by:	TS
Scale:	AS SHOWN	Approved by:	JLL

SITE PLAN

458 Lakeland Ave
Sayville, NY

FIGURE NO:

2

APPENDIX A
SITE PHOTOGRAPHS

A view of the golf course.

A view of the former Pro Shop.

A 550 gallon AST was observed behind the former Pro Shop. The AST is in direct contact with the soil, but no obvious leaks were observed.

A view of the Pro Shop storage area.

A view of the Pro Shop garage area.

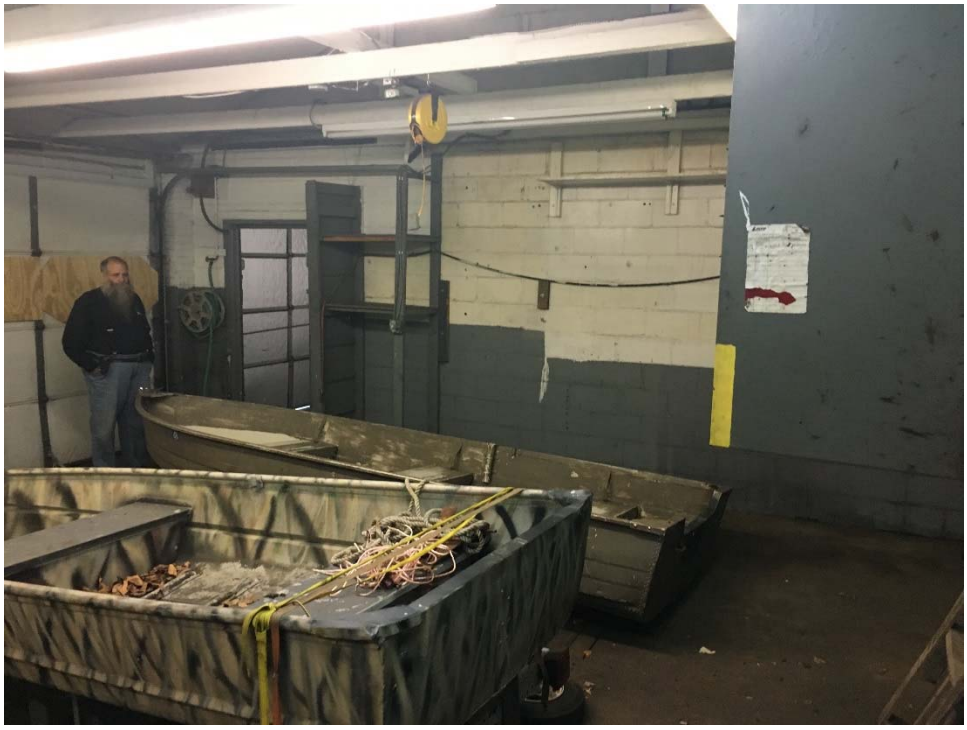
A view of the interior of the Pro Shop.

An asphalt-paved lot was observed adjacent to the south maintenance area.

A view of the interior of the south maintenance building.

A 275-gallon AST was previously located adjacent to the SMB. *De minimus* staining is observed where the AST was located.

A 2,000-gallon AST was previously located on this concrete slab north of the SMB.



A view of the garage bay in the SMB.

A gas-powered HVAC Air Handler located in the SMB.

A generator in the SMB. This generator was reportedly not used at the site and is only being stored there.

Antifreeze and lube oil was stored in the SMB. No leaks or stains were observed.

A sealed maintenance pit was discovered in the SMB.

A stormwater drain was observed adjacent to the SMB.

Some *de minimus* petroleum staining with speedy dry absorbent was observed in the SMB in the vicinity of the lawn mower maintenance equipment. No cracks were observed in the concrete.

Water staining was observed on the concrete floor of the SMB.

A view of the back porch of the north vacant single family house.

A 275-gallon AST, presumably used for fuel oil, was located in the basement of a residential home located on the northern portion of the site.

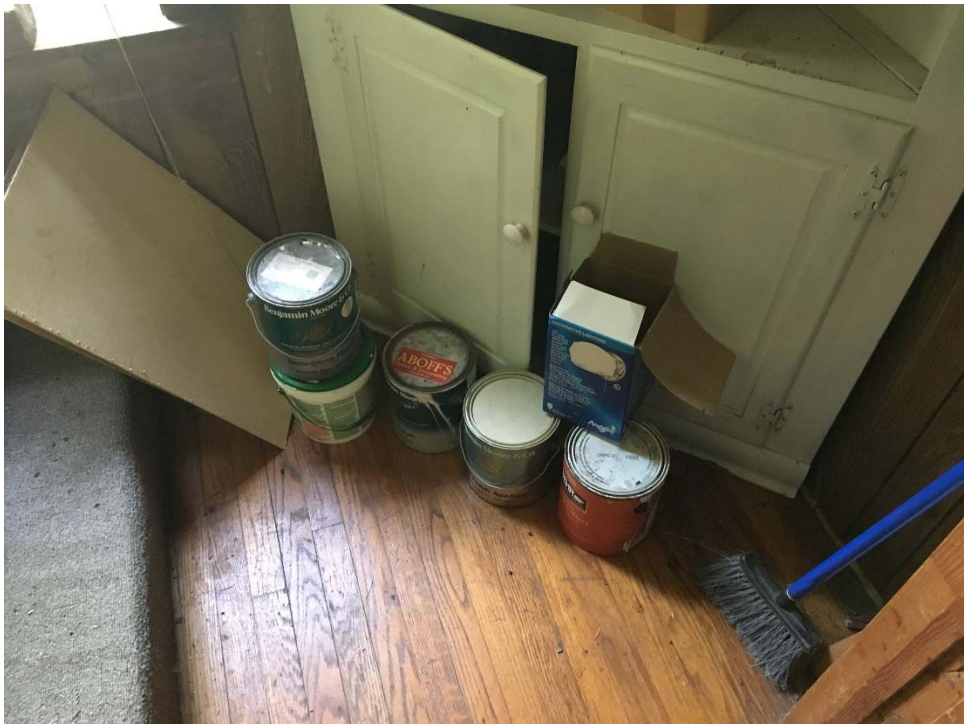
Minor staining was observed on the concrete floor of the basement of one of the residential houses.

There was also exposed soil located in the basement of one of the residential houses. The soil did not appear to be contaminated, as no staining or odors were observed.

A sanitary manhole was observed on the property of the northern residential home.

A view of the back of south vacant single family house.

A 275-gallon AST was observed in the basement of the southern home.



Stored paint cans were observed inside the south house.

A view of the pool house.

Pool maintenance chemicals were observed in the pool house. The products were properly stored, with no staining or leaks observed.

A sand filtration system is located in the pool house.

A view of the covered pool.

A UST used to store water relating to the site's irrigation is located in a maintenance pit near a private well on the west side of the golf course.

The potential location of a landscaping debris pile is located at the western portion of the golf course. The area was overgrown; therefore, the surface could not be inspected to determine if the debris pile was still there.

APPENDIX B
SANBORN MAPS

458 Lakeland Ave

458 Lakeland Ave

Sayville, NY 11782

Inquiry Number: 5303084.3

May 21, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

05/21/18

Site Name:	Client Name:
458 Lakeland Ave	P.W. Grosser Consulting
458 Lakeland Ave	630 Johnson Ave
Sayville, NY 11782	Bohemia, NY 11550
EDR Inquiry # 5303084.3	Contact: Lisa Schreiner

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by P.W. Grosser Consulting were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 145C-4CED-AF16

PO # NA

Project RSL1801

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 145C-4CED-AF16

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

P.W. Grosser Consulting (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

APPENDIX C
TOPOGRAPHIC MAPS

458 Lakeland Ave

458 Lakeland Ave

Sayville, NY 11782

Inquiry Number: 5303084.4

May 21, 2018

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

05/21/18

Site Name:

458 Lakeland Ave
458 Lakeland Ave
Sayville, NY 11782
EDR Inquiry # 5303084.4

Client Name:

P.W. Grosser Consulting
630 Johnson Ave
Bohemia, NY 11550
Contact: Lisa Schreiner

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by P.W. Grosser Consulting were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: RSL1801

Coordinates:

Latitude:	40.755452 40° 45' 20" North
Longitude:	-73.099518 -73° 5' 58" West
UTM Zone:	Zone 18 North
UTM X Meters:	660427.14
UTM Y Meters:	4513347.80
Elevation:	32.70' above sea level

Maps Provided:

2013
1976, 1979
1967
1956
1955, 1956
1947
1942
1919
1904
1903, 1904
1902

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

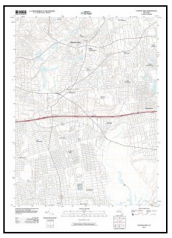
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2013 Source Sheets

Bay Shore East
2013
7.5-minute, 24000

Patchogue
2013
7.5-minute, 24000

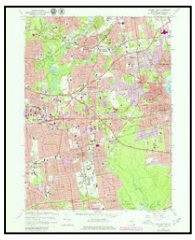
Sayville
2013
7.5-minute, 24000



Central Islip
2013
7.5-minute, 24000

1976, 1979 Source Sheets

Sayville
1976
7.5-minute, 24000
Aerial Photo Revised 1966



Central Islip
1979
7.5-minute, 24000
Aerial Photo Revised 1977

Bay Shore East
1979
7.5-minute, 24000
Aerial Photo Revised 1978

1967 Source Sheets

Bay Shore East
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Sayville
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Patchogue
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Central Islip
1967
7.5-minute, 24000
Aerial Photo Revised 1966

1956 Source Sheets

Setauket
1956
15-minute, 62500
Aerial Photo Revised 1954

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1955, 1956 Source Sheets

Bay Shore East
1955
7.5-minute, 24000
Aerial Photo Revised 1954

Sayville
1955
7.5-minute, 24000
Aerial Photo Revised 1954

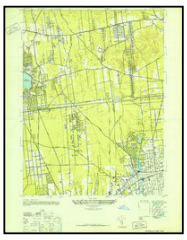
Central Islip
1956
7.5-minute, 24000
Aerial Photo Revised 1954

Patchogue
1956
7.5-minute, 24000
Aerial Photo Revised 1954

1947 Source Sheets

Central Islip
1947
7.5-minute, 24000

Sayville
1947
7.5-minute, 24000
Aerial Photo Revised 1942



Patchogue
1947
7.5-minute, 24000
Aerial Photo Revised 1947

1942 Source Sheets

Islip
1942
30-minute, 125000

1919 Source Sheets

Setauket
1919
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1904 Source Sheets

Islip
1904
30-minute, 125000

1903, 1904 Source Sheets

Fire Island
1903
15-minute, 62500

Setauket
1904
15-minute, 62500

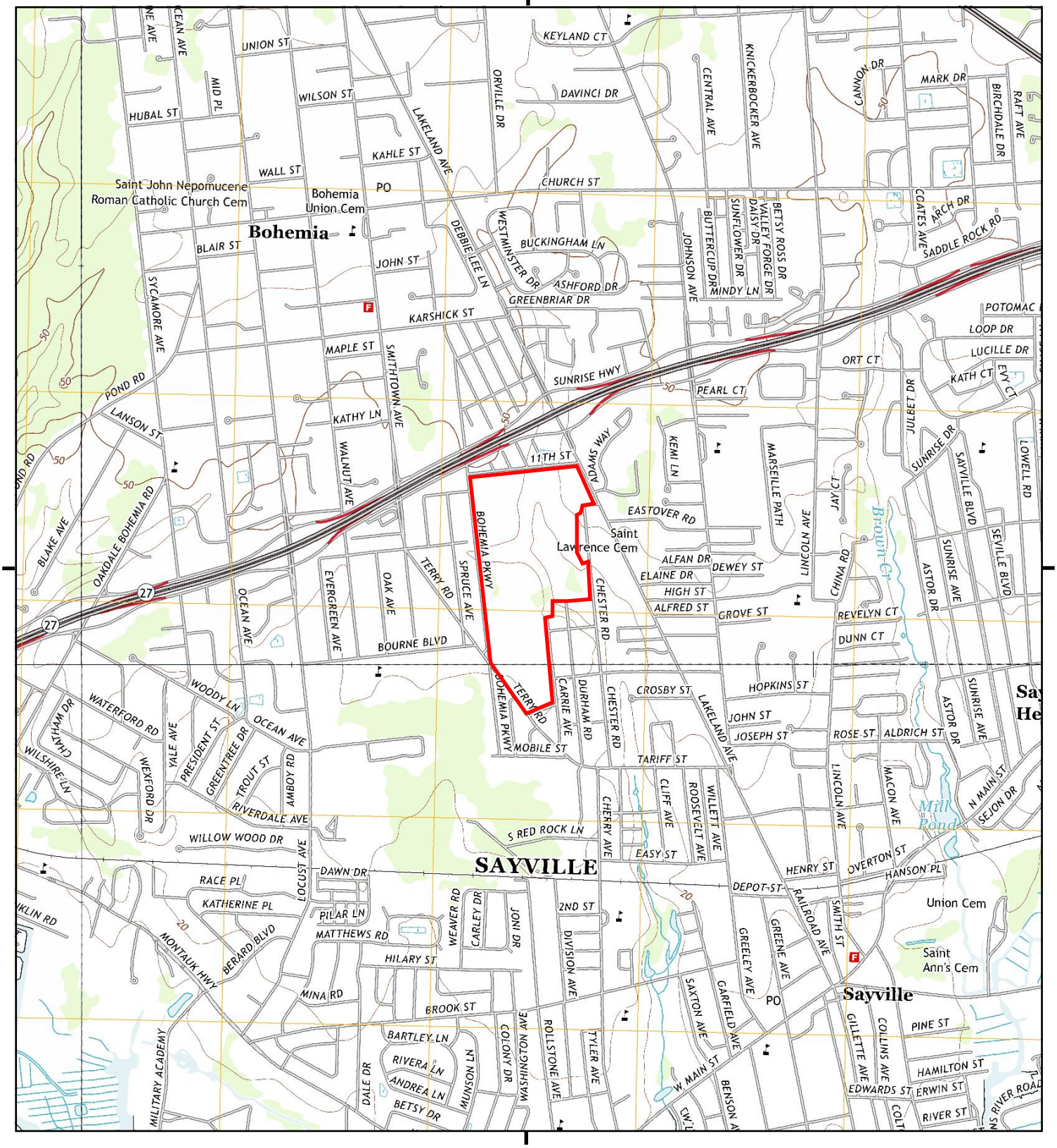
1902 Source Sheets

Fire Island
1902
15-minute, 62500

Setauket
1902
15-minute, 62500

Historical Topo Map

2013



This report includes information from the following map sheet(s).

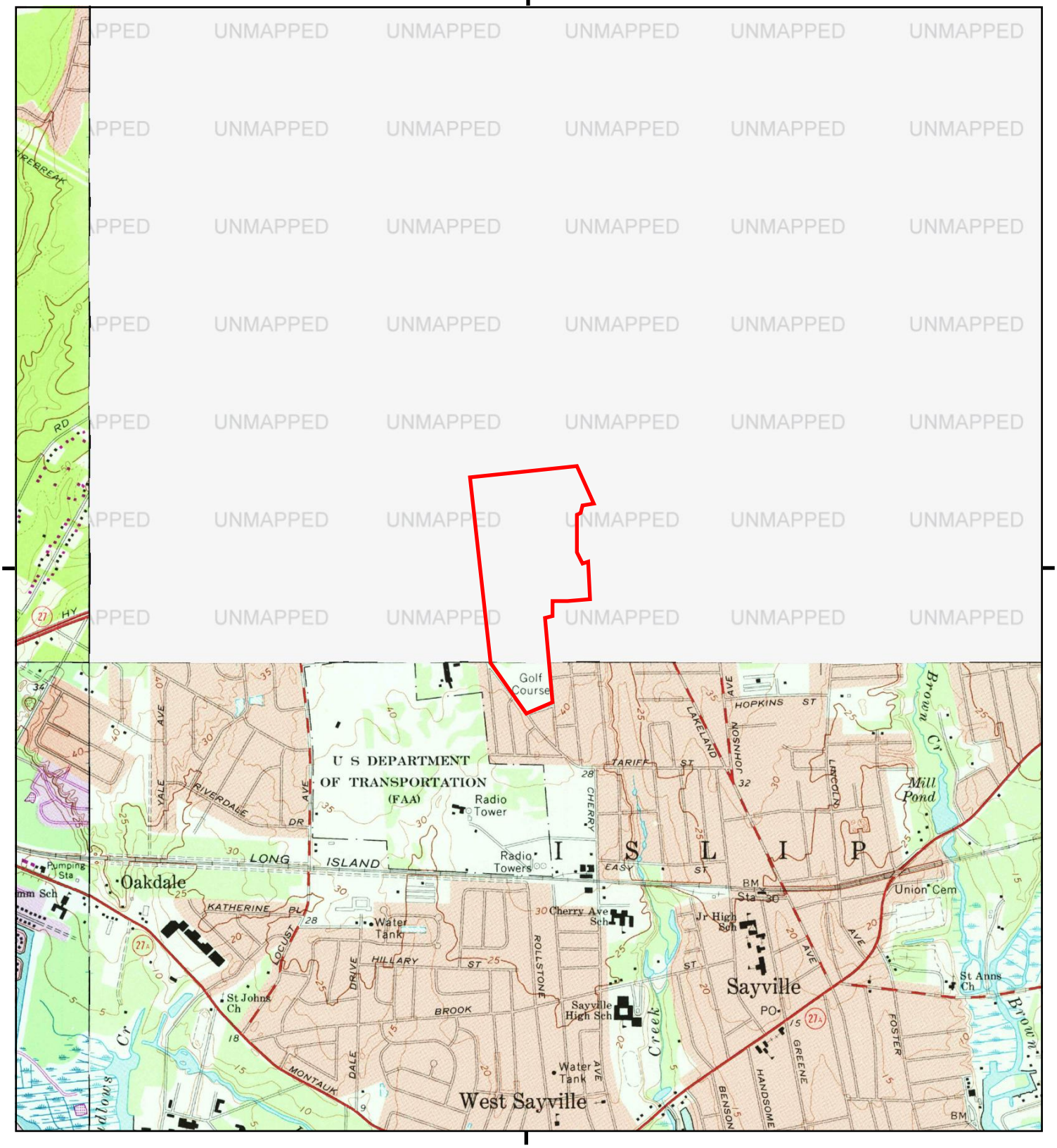
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Patchogue, 2013, 7.5-minute
SE, Sayville, 2013, 7.5-minute
SW, Bay Shore East, 2013, 7.5-minute
NW, Central Islip, 2013, 7.5-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

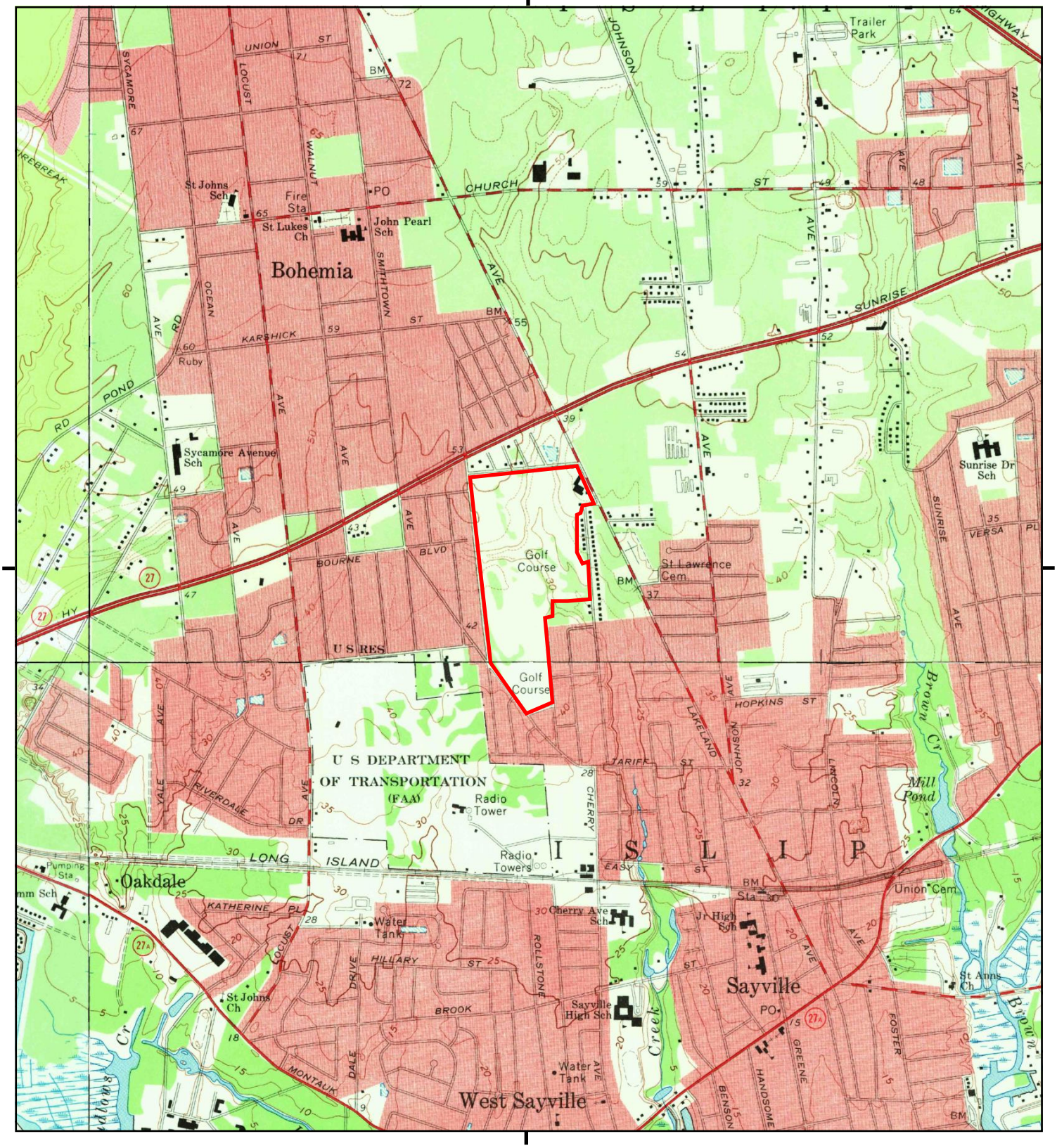
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

SE, Sayville, 1976, 7.5-minute
SW, Bay Shore East, 1979, 7.5-minute
NW, Central Islip, 1979, 7.5-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

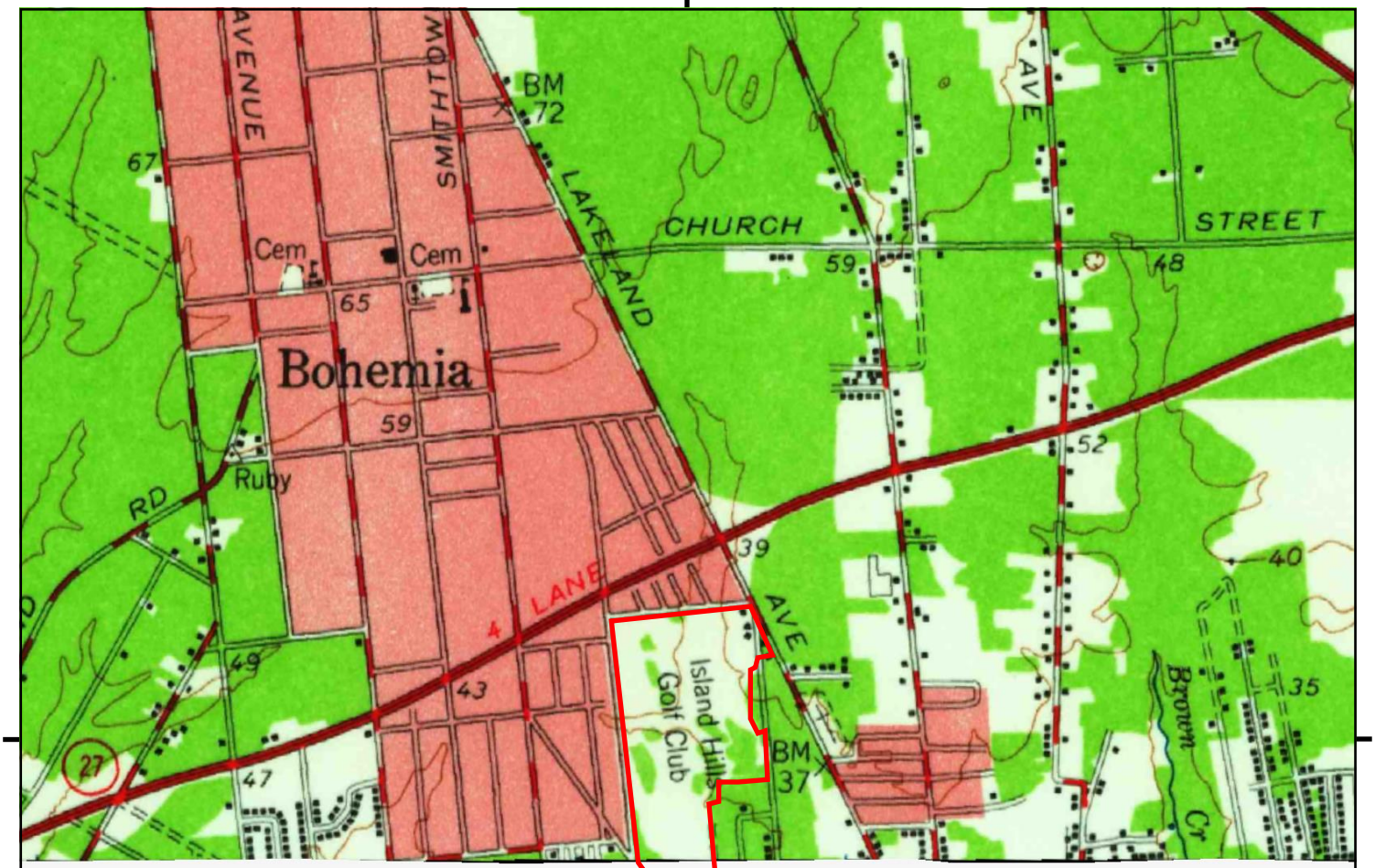
TP, Patchogue, 1967, 7.5-minute
SE, Sayville, 1967, 7.5-minute
SW, Bay Shore East, 1967, 7.5-minute
NW, Central Islip, 1967, 7.5-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N

Historical Topo Map

1956



UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED
UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED
UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED
UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED
UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

This report includes information from the following map sheet(s).

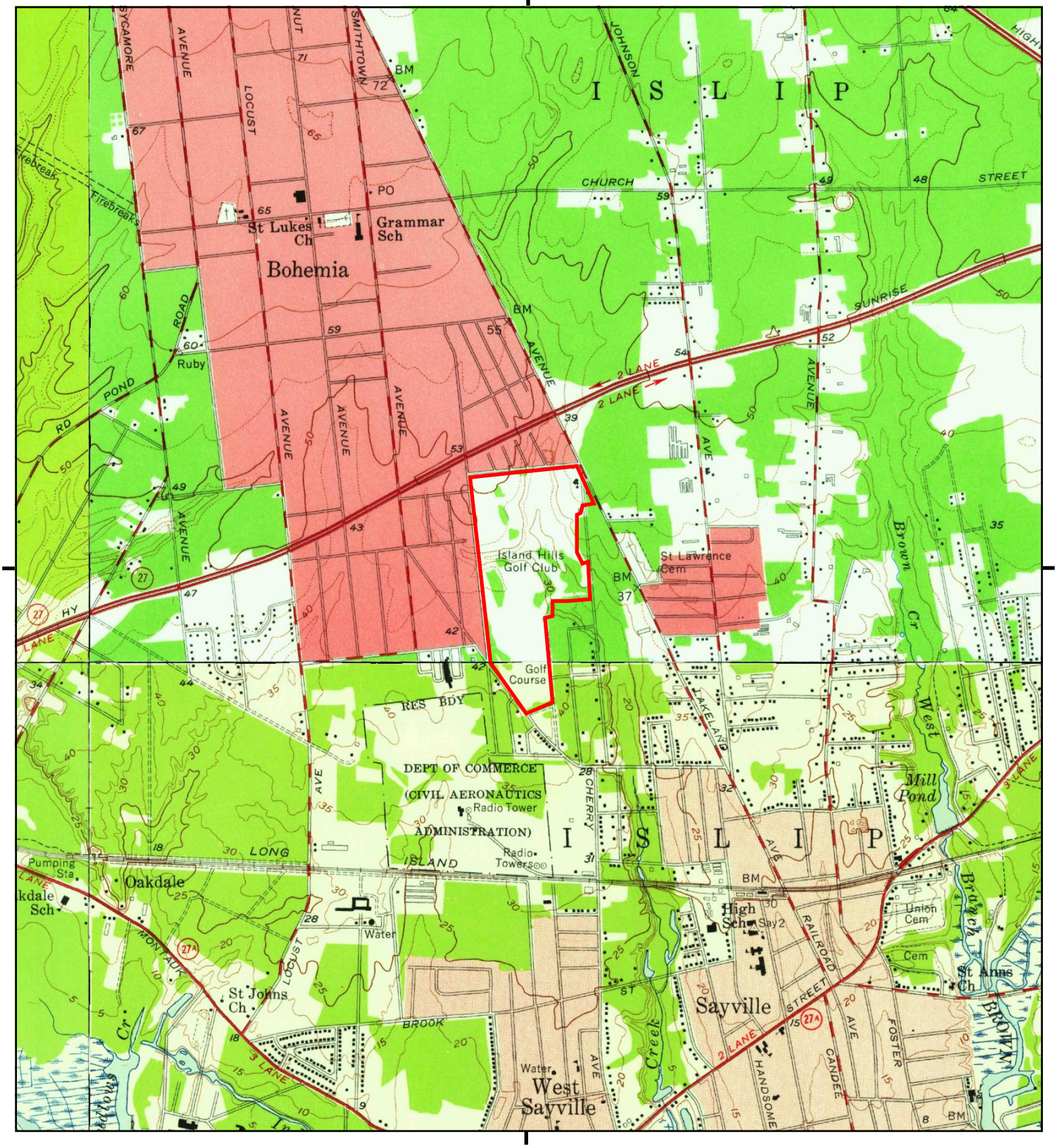
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Setauket, 1956, 15-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

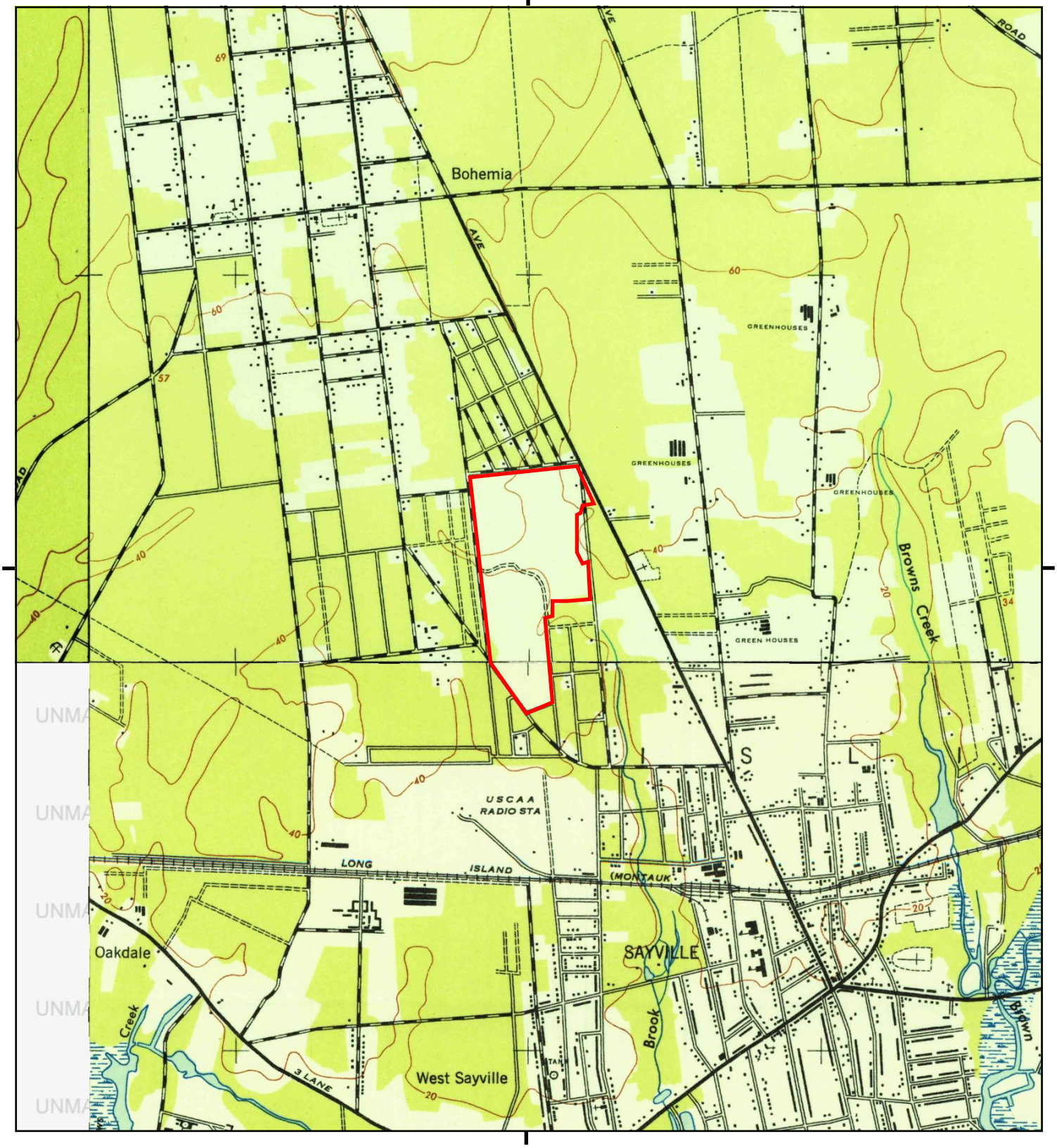
TP, Patchogue, 1956, 7.5-minute
SE, Sayville, 1955, 7.5-minute
SW, Bay Shore East, 1955, 7.5-minute
NW, Central Islip, 1956, 7.5-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

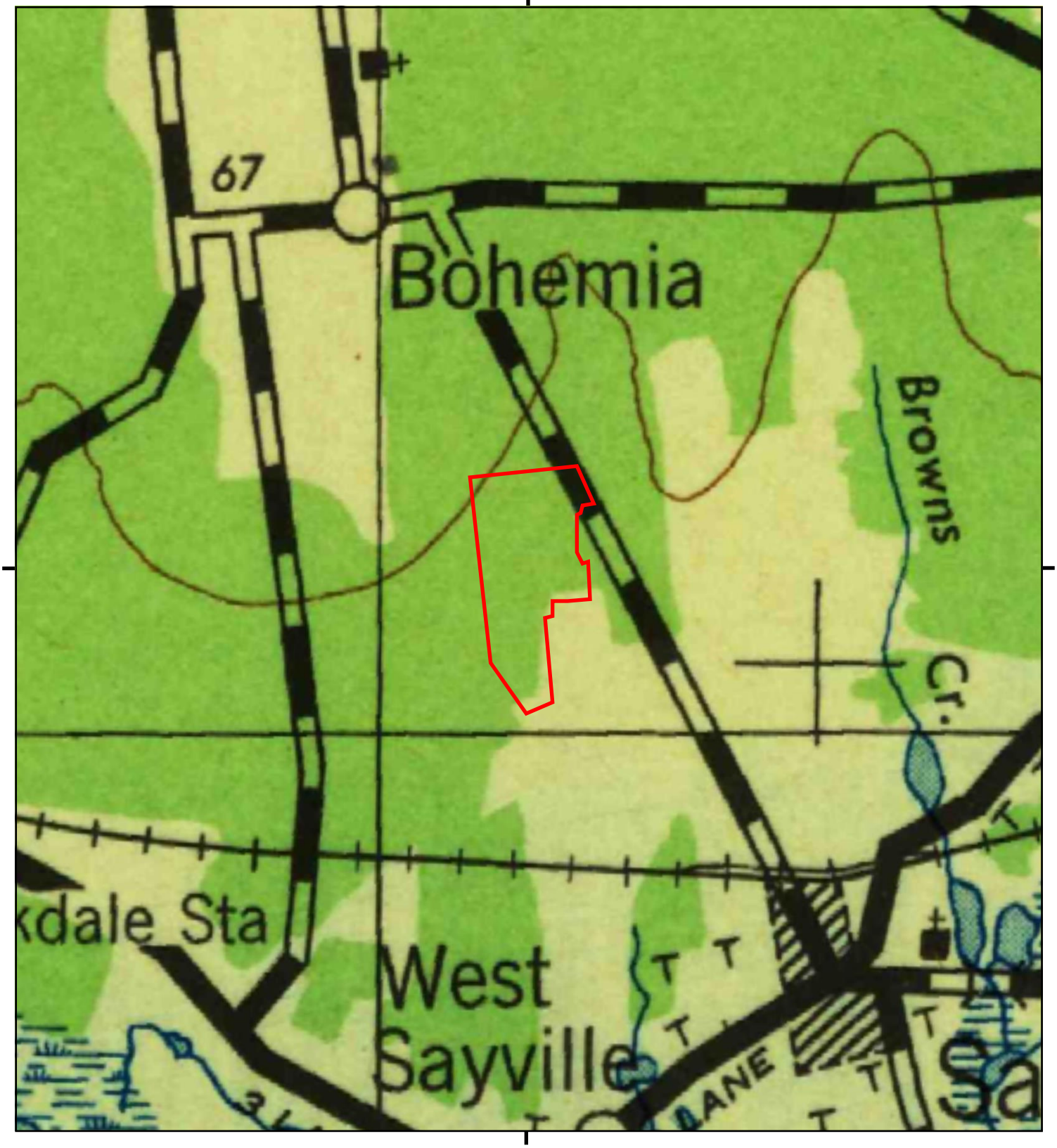
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Patchogue, 1947, 7.5-minute
SE, Sayville, 1947, 7.5-minute
NW, Central Islip, 1947, 7.5-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

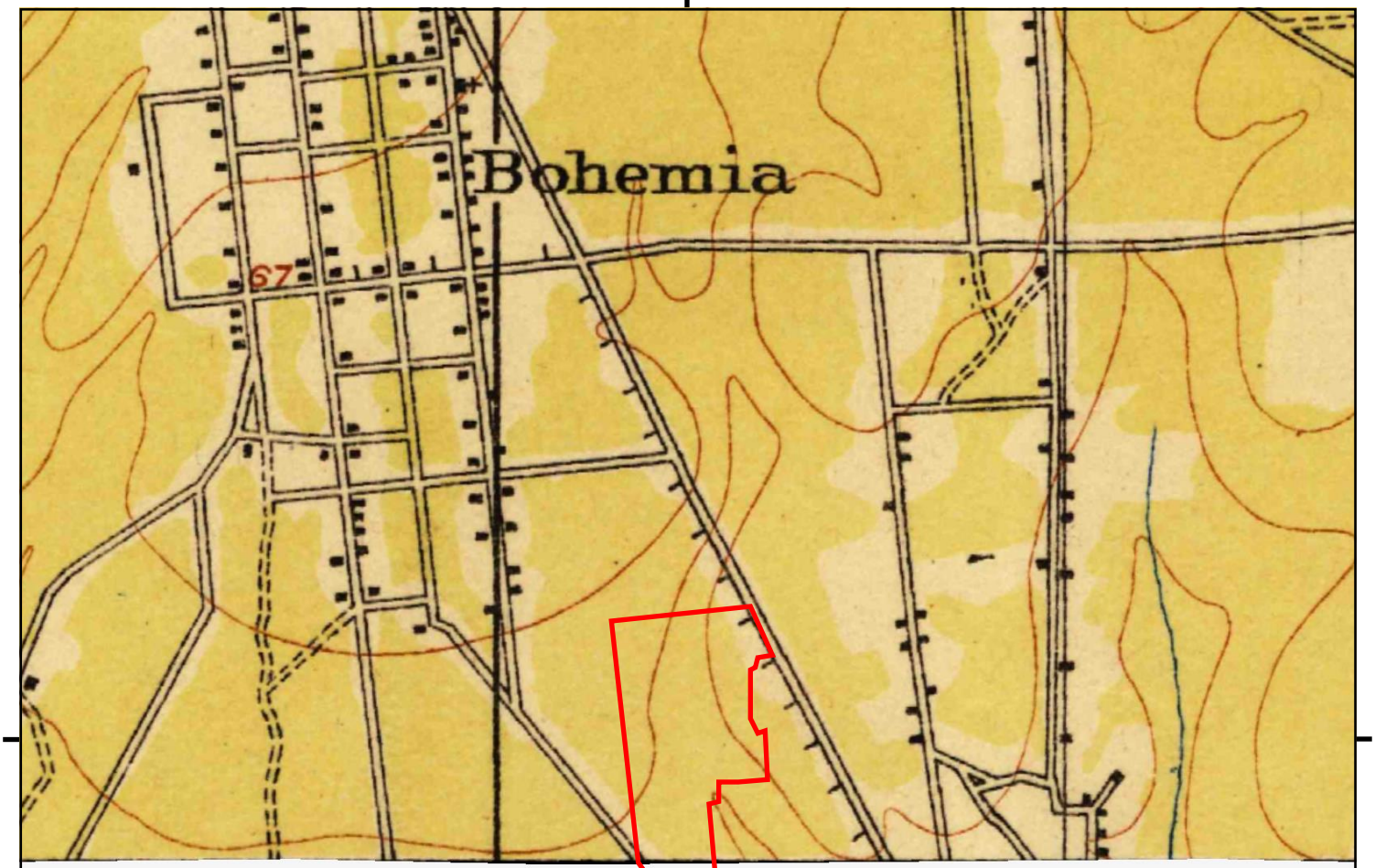
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Islip, 1942, 30-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



UNMAPPED

This report includes information from the following map sheet(s).

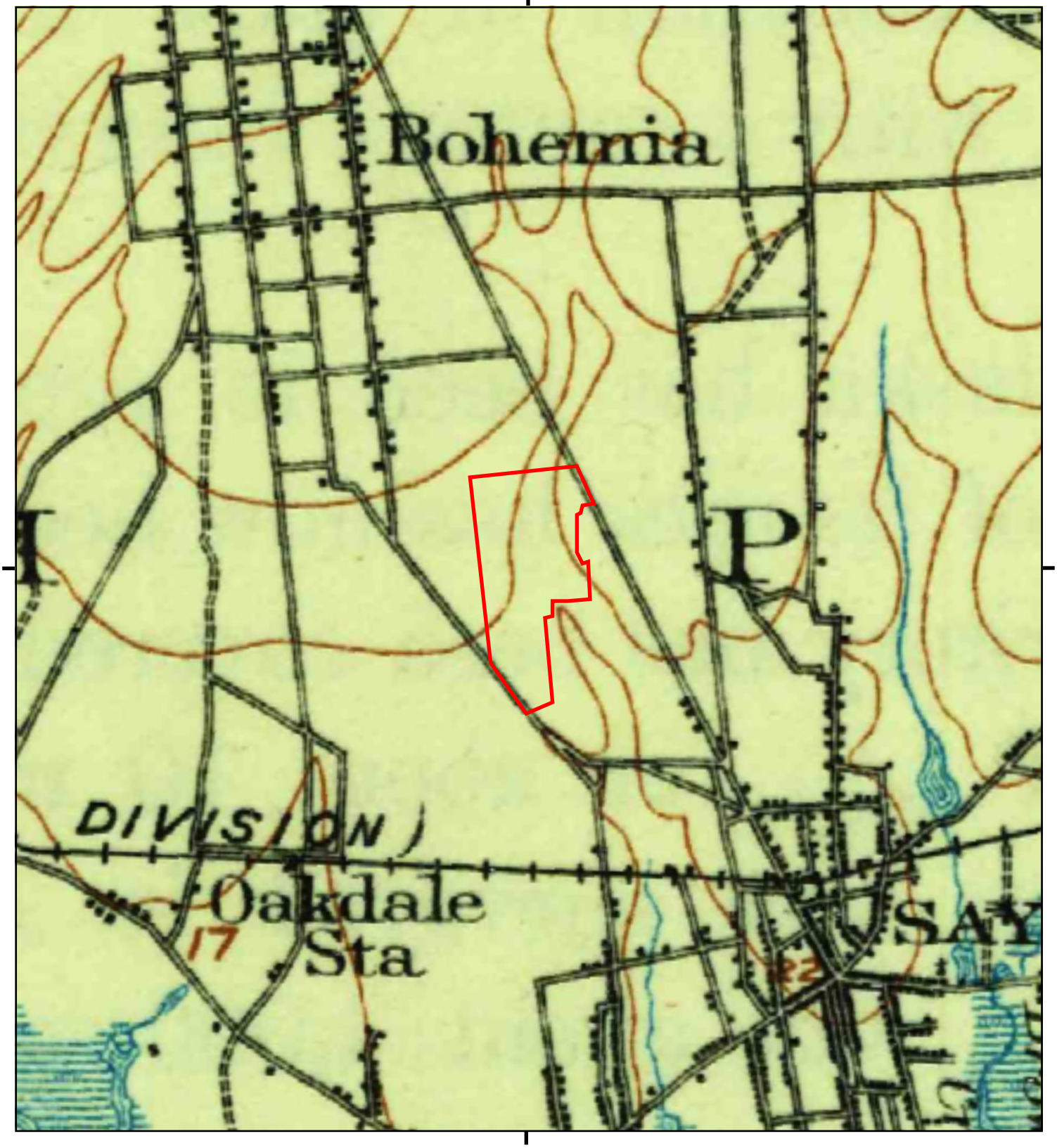
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Setauket, 1919, 15-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

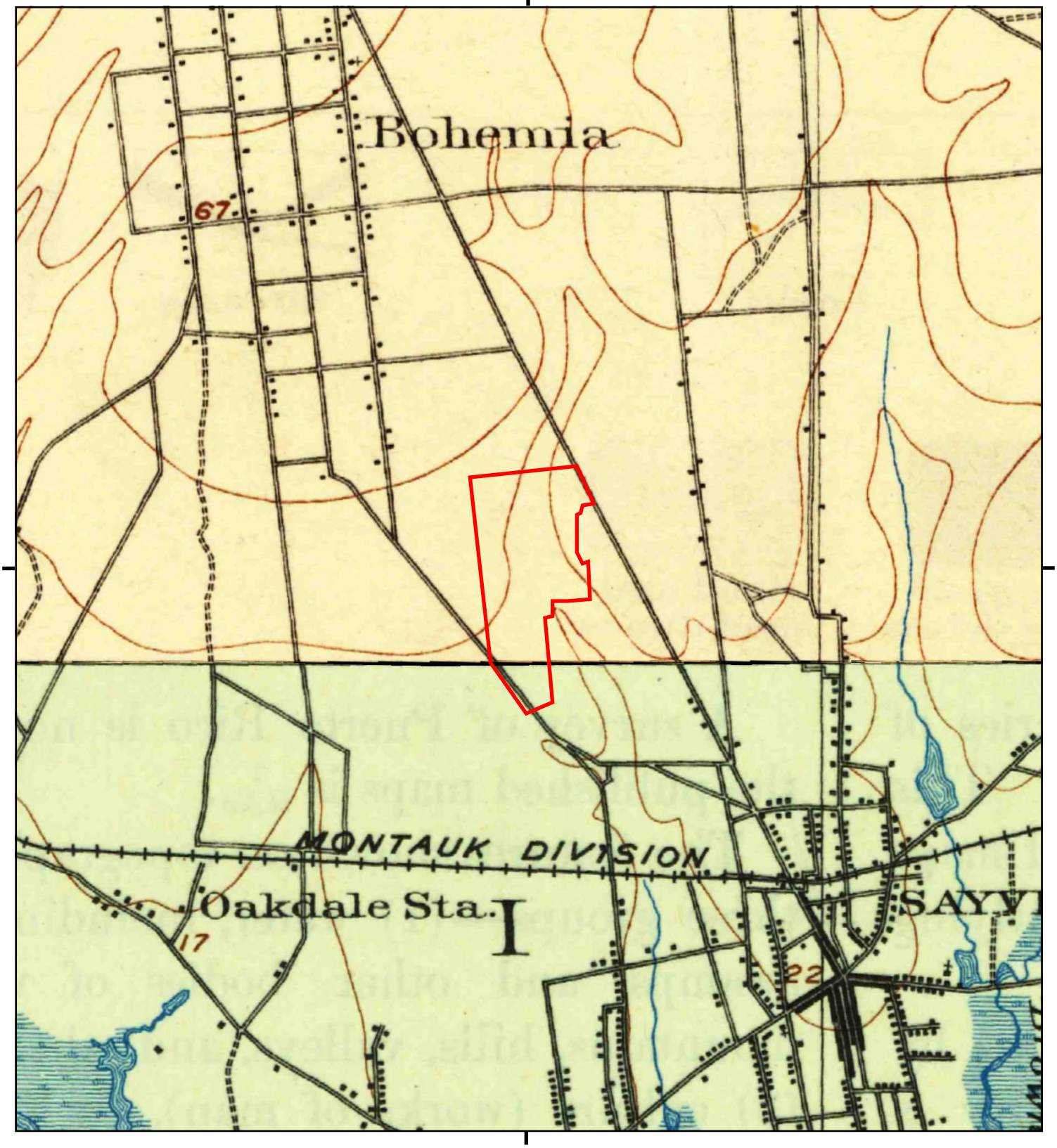
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Islip, 1904, 30-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

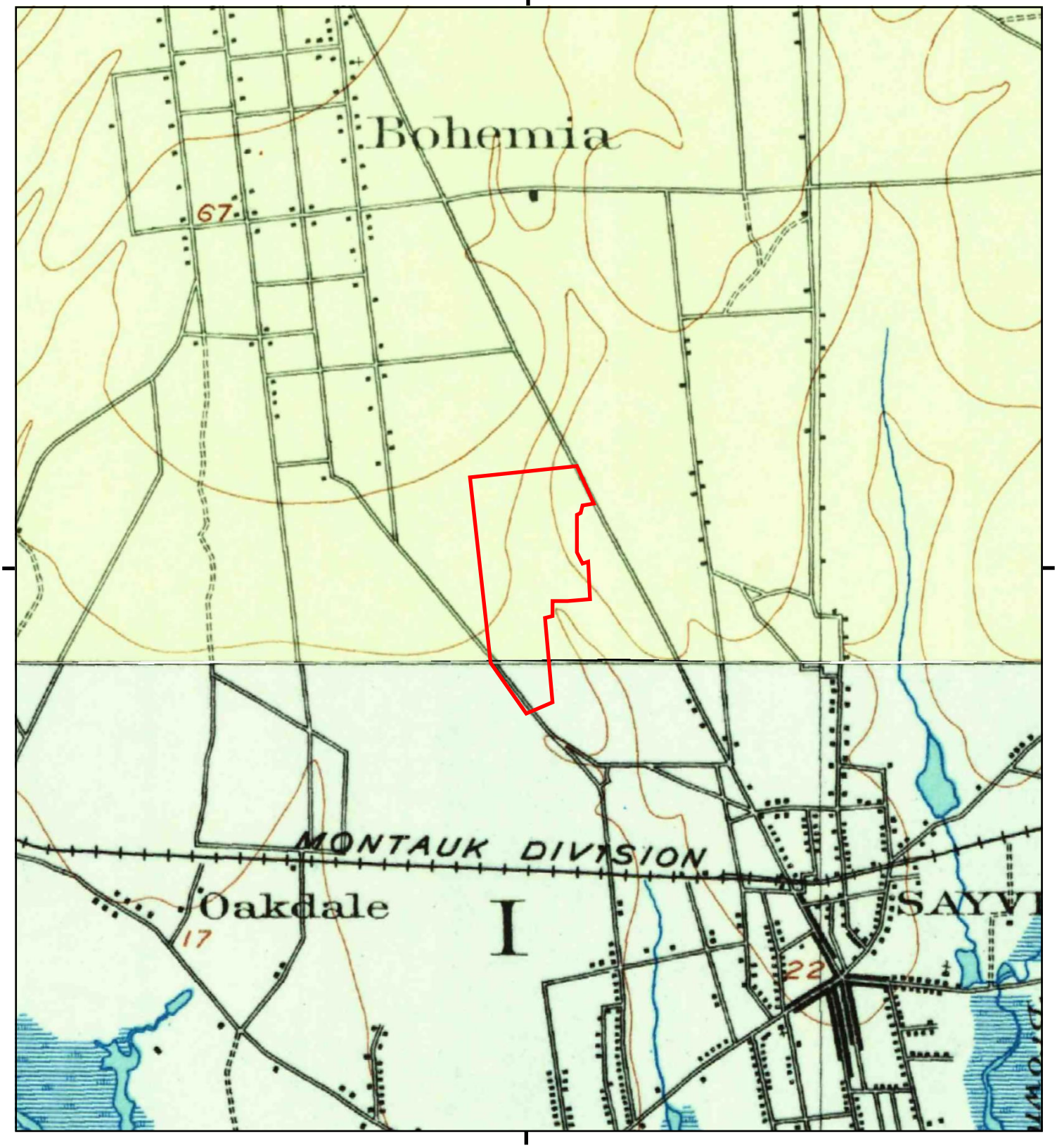
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Setauket, 1904, 15-minute
S, Fire Island, 1903, 15-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Setauket, 1902, 15-minute
S, Fire Island, 1902, 15-minute

SITE NAME: 458 Lakeland Ave
ADDRESS: 458 Lakeland Ave
Sayville, NY 11782
CLIENT: P.W. Grosser Consulting

N

APPENDIX D
AERIAL PHOTOS

458 Lakeland Ave

458 Lakeland Ave

Sayville, NY 11782

Inquiry Number: 5303084.8

May 22, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

05/22/18

Site Name:

458 Lakeland Ave
458 Lakeland Ave
Sayville, NY 11782
EDR Inquiry # 5303084.8

Client Name:

P.W. Grosser Consulting
630 Johnson Ave
Bohemia, NY 11550
Contact: Lisa Schreiner

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2015	1"=500'	Flight Year: 2015	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
1994	1"=500'	Acquisition Date: April 08, 1994	USGS/DOQQ
1985	1"=500'	Flight Date: April 17, 1985	USDA
1980	1"=500'	Flight Date: September 08, 1980	USDA
1976	1"=500'	Flight Date: April 10, 1976	Aero
1970	1"=500'	Flight Date: May 30, 1970	USDA
1966	1"=500'	Flight Date: March 29, 1966	USGS
1962	1"=500'	Flight Date: March 16, 1962	EDR Proprietary Aerial Viewpoint
1957	1"=500'	Flight Date: March 31, 1957	Jack
1954	1"=500'	Flight Date: February 27, 1954	USGS
1947	1"=500'	Flight Date: January 01, 1947	FirstSearch
1938	1"=500'	Flight Date: January 06, 1938	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2018 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

INQUIRY #: 5303084.8

YEAR: 2015

= 500'

N

EDR

INQUIRY #: 5303084.8
YEAR: 2011
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 2008
= 500'
N
EDR

INQUIRY #: 5303084.8

YEAR: 1994

= 500'

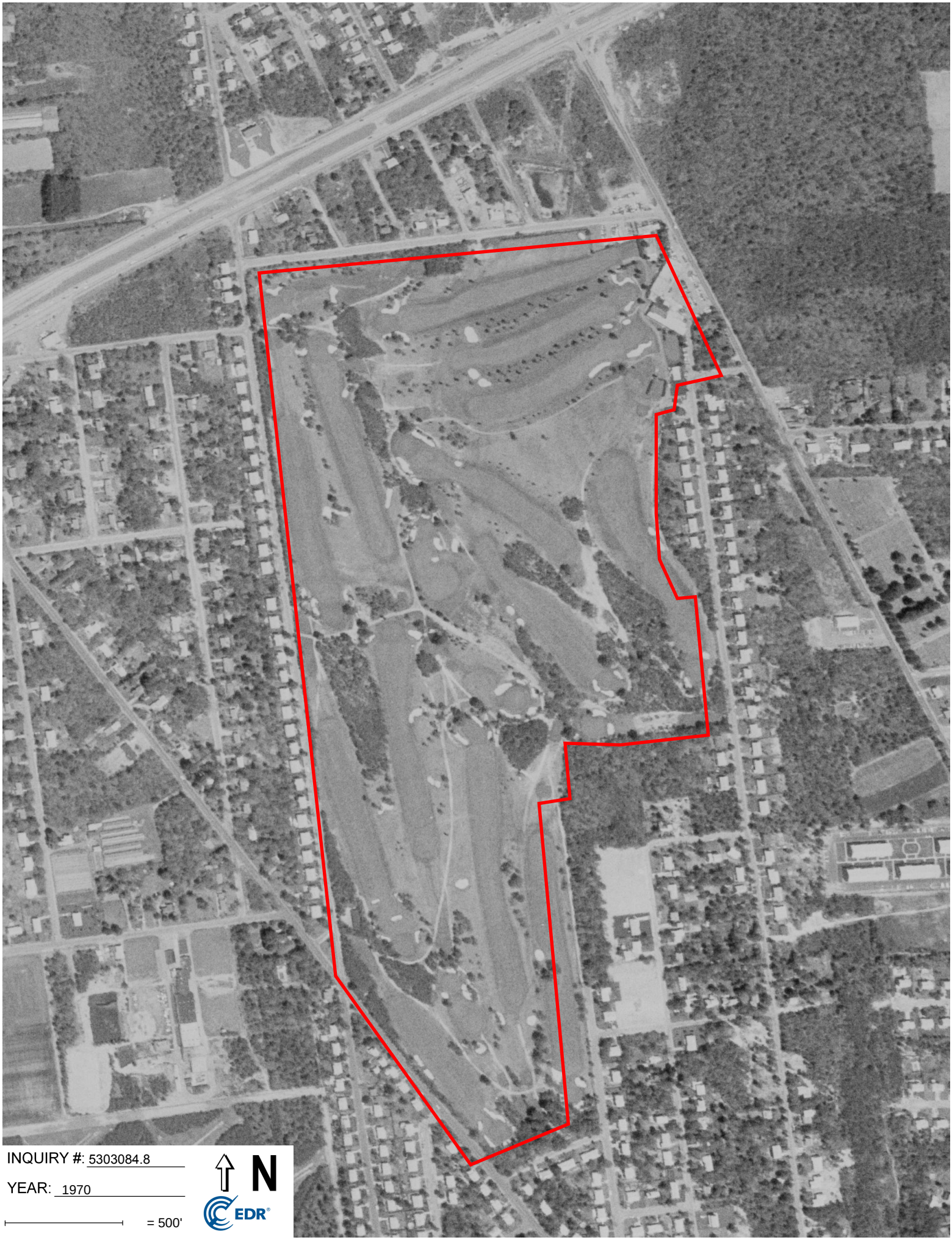
N

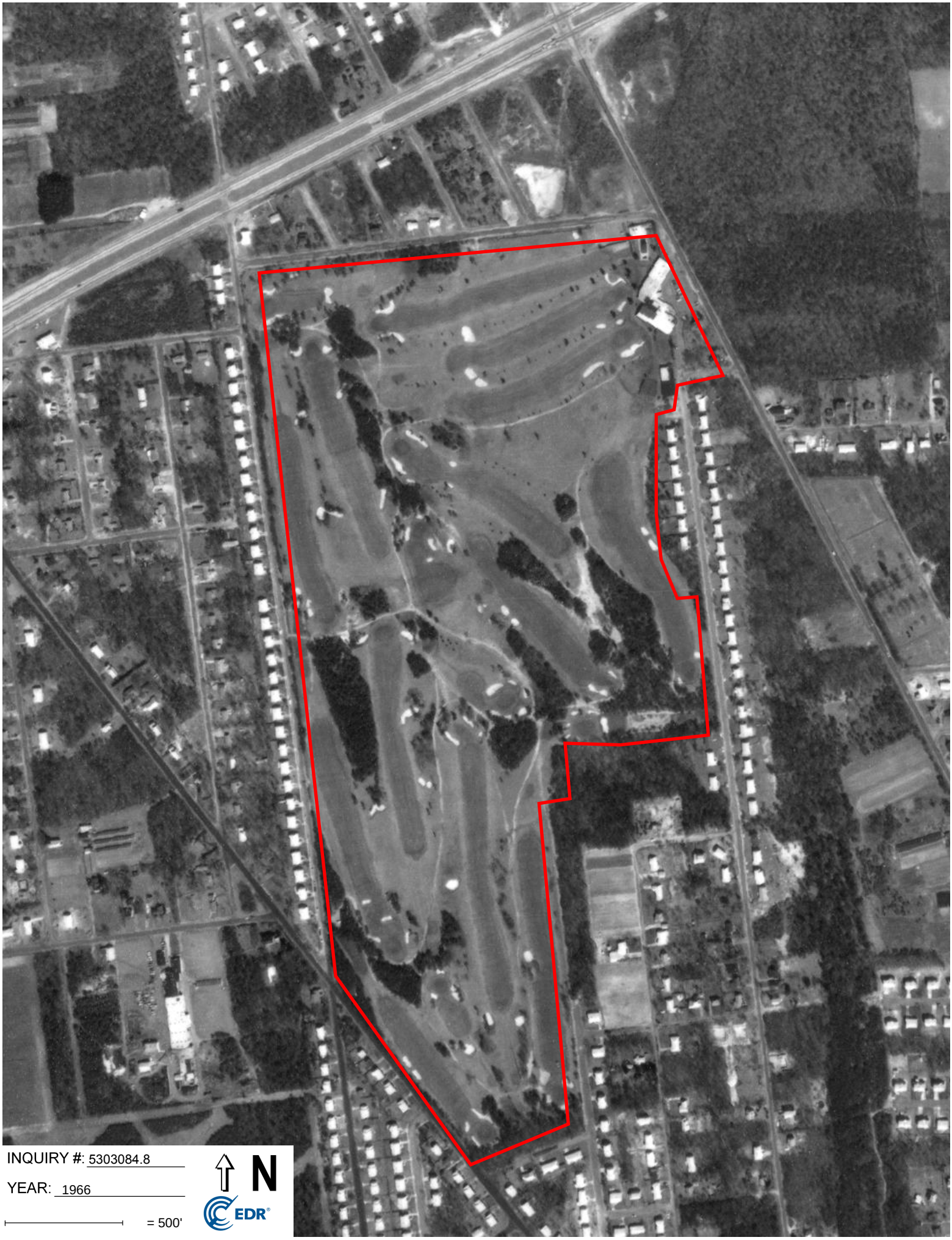
EDR

INQUIRY #: 5303084.8
YEAR: 1985
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 1980
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 1976
= 500'
N
EDR


INQUIRY #: 5303084.8
YEAR: 1970
= 500'
N
EDR


INQUIRY #: 5303084.8
YEAR: 1966
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 1962
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 1957
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 1954
= 500'
N
EDR

INQUIRY #: 5303084.8
YEAR: 1947
= 500'
N
EDR

INQUIRY #: 5303084.8

YEAR: 1938

= 500'

N

EDR

APPENDIX E
CITY DIRECTORY ABSTRACT

458 Lakeland Ave
458 Lakeland Ave
Sayville, NY 11782

Inquiry Number: 5303084.5
May 22, 2018

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2017 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

Data by
infoUSA®
Copyright©2008
All Rights Reserved

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1989	☑	☐	Cole Criss-Cross Directory
1984	☑	☐	Cole Criss-Cross Directory
1979	☑	☐	Cole Criss-Cross Directory
1974	☑	☐	Cole Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

458 Lakeland Ave
Sayville, NY 11782

Year	*CD Image*	*Source*

LAKELAND AVE

2014	pg A1	EDR Digital Archive
2010	pg A2	EDR Digital Archive
2005	pg A3	EDR Digital Archive
2000	pg A4	EDR Digital Archive
1995	pg A5	EDR Digital Archive
1992	pg A6	EDR Digital Archive
1989	pg A7	Cole Criss-Cross Directory
1984	pg A8	Cole Criss-Cross Directory
1979	pg A9	Cole Criss-Cross Directory
1974	pg A10	Cole Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAKELAND AVE 2014

371	HJ SWIFT CONVENIENCE INC
	RESTAURANTE BELLO SOL CORP
458	ISLAND HILLS GOLF CLUB INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAKELAND AVE 2010

371 HJ SWIFT CONVENIENCE INC
458 ISLAND HILLS GOLF CLUB INC
469 R LEACH LANDSCAPING INC
SAYVILLE GARDEN CENTER

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAKELAND AVE 2005

371 LAKELAND DELICATESSEN
458 ISLAND HILLS GOLF CLUB INC
469 R LEACH LANDSCAPING INC
SAYVILLE GARDEN CENTER

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAKELAND AVE 2000

371 LAKELAND DELICATESSEN(INC)
458 ISLAND HILLS GOLF CLUB INC
469 R LEACH LANDSCAPING INC
SAYVILLE GARDEN CENTER

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAKELAND AVE 1995

458 TOP OF THE CLASS CATERERS INC

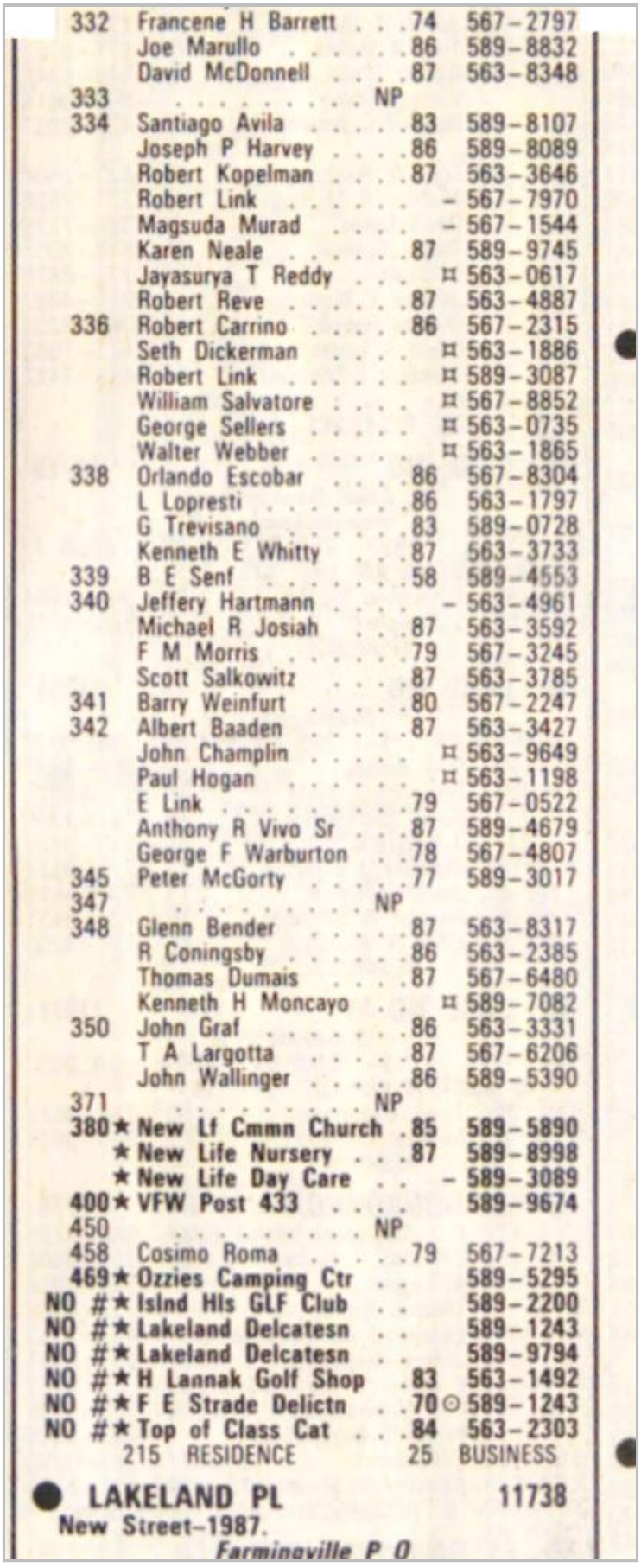
Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LAKELAND AVE 1992

450 JOE AND MARYS PLACE INC
458 TOP OF THE CLASS CATERERS INC
469 OZZIES CAMPING CENTER INC

Target Street	Cross Street	Source
✓	-	Cole Criss-Cross Directory

LAKELAND AVE 1989



332	Francene H Barrett	. . .74		567-2797
	Joe Marullo	86		589-8832
	David McDonnell	87		563-8348
333		. . . . . NP		
334	Santiago Avila	83		589-8107
	Joseph P Harvey	86		589-8089
	Robert Kopelman	87		563-3646
	Robert Link	. . . . .	-	567-7970
	Magsuda Murad	. . . .	-	567-1544
	Karen Neale	87		589-9745
	Jayasurya T Reddy	. . .	¤	563-0617
	Robert Reve	87		563-4887
336	Robert Carrino	86		567-2315
	Seth Dickerman	. . . .	¤	563-1886
	Robert Link	. . . . .	¤	589-3087
	William Salvatore	. . . .	¤	567-8852
	George Sellers	. . . . .	¤	563-0735
	Walter Webber	. . . . .	¤	563-1865
338	Orlando Escobar	86		567-8304
	L Lopresti	86		563-1797
	G Trevisano	83		589-0728
	Kenneth E Whitty	. . .87		563-3733
339	B E Senf	58		589-4553
340	Jeffery Hartmann	. . . .	-	563-4961
	Michael R Josiah	. . .87		563-3592
	F M Morris	79		567-3245
	Scott Salkowitz	87		563-3785
341	Barry Weinfurt	80		567-2247
342	Albert Baaden	87		563-3427
	John Champlin	. . . . .	¤	563-9649
	Paul Hogan	. . . . .	¤	563-1198
	E Link	79		567-0522
	Anthony R Vivo Sr	. . .87		589-4679
	George F Warburton	. .78		567-4807
345	Peter McGorty	77		589-3017
347		. . . . . NP		
348	Glenn Bender	87		563-8317
	R Coningsby	86		563-2385
	Thomas Dumais	87		567-6480
	Kenneth H Moncayo	. .	¤	589-7082
350	John Graf	86		563-3331
	T A Largotta	87		567-6206
	John Wallinger	86		589-5390
371		. . . . . NP		
380	**★ New Lf Cmmn Church**	**.85**		**589-5890**
	★ New Life Nursery	**. . .87**		**589-8998**
	★ New Life Day Care	**. .**	**-**	**589-3089**
400	**★ VFW Post 433**	**. . . .**		**589-9674**
450		. . . . . NP		
458	Cosimo Roma	79		567-7213
469	**★ Ozzies Camping Ctr**	**. .**		**589-5295**
NO #	**★ Islnd Hls GLF Club**	**. .**		**589-2200**
NO #	**★ Lakeland Delcatesn**	**. .**		**589-1243**
NO #	**★ Lakeland Delcatesn**	**. .**		**589-9794**
NO #	**★ H Lannak Golf Shop**	**.83**		**563-1492**
NO #	**★ F E Strade Delictn**	**. .70**	⊙	**589-1243**
NO #	**★ Top of Class Cat**	**. . .84**		**563-2303**

215 RESIDENCE 25 BUSINESS

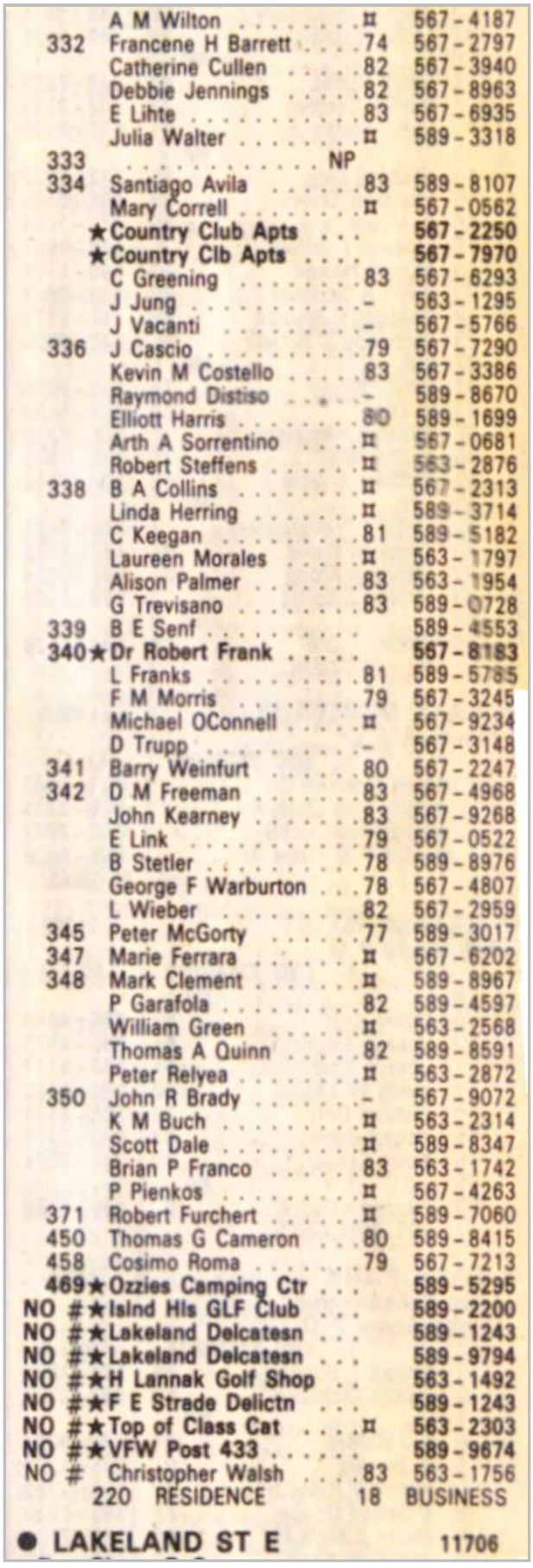
● **LAKELAND PL** 11738

New Street–1987.

Farmingville P O

Target Street	Cross Street	Source
✓	-	Cole Criss-Cross Directory

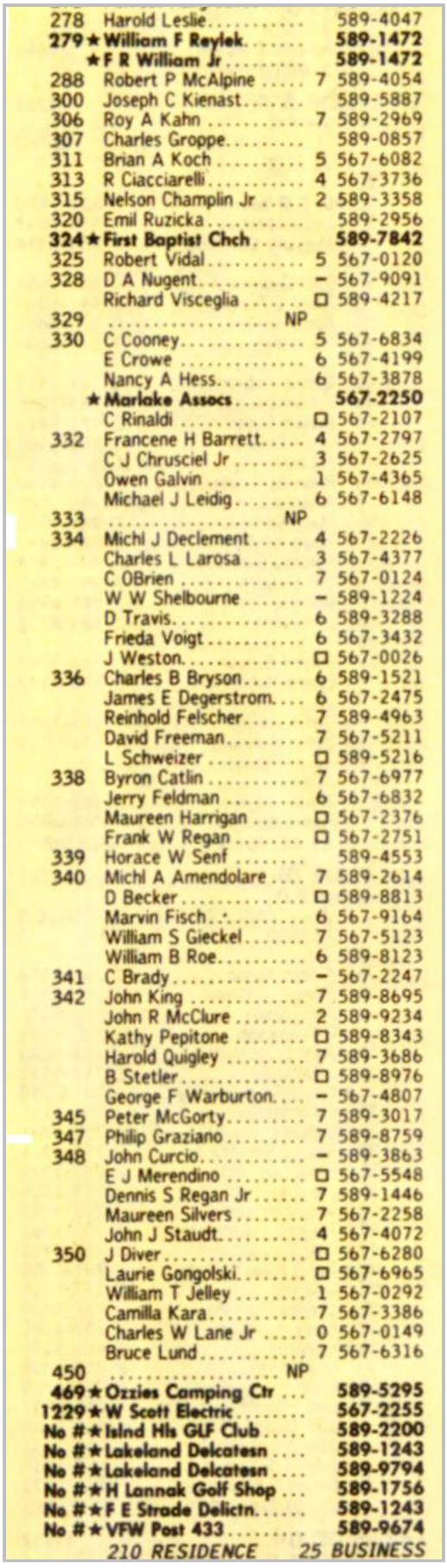
LAKELAND AVE 1984



	A M Wilton	¤	567-4187
332	Francene H Barrett	74	567-2797
	Catherine Cullen	82	567-3940
	Debbie Jennings	82	567-8963
	E Lihte	83	567-6935
	Julia Walter	¤	589-3318
333		NP	
334	Santiago Avila	83	589-8107
	Mary Correll	¤	567-0562
	★Country Club Apts		567-2250
	★Country Clb Apts		567-7970
	C Greening	83	567-6293
	J Jung	-	563-1295
	J Vacanti	-	567-5766
336	J Cascio	79	567-7290
	Kevin M Costello	83	567-3386
	Raymond Distiso	-	589-8670
	Elliott Harris	80	589-1699
	Arth A Sorrentino	¤	567-0681
	Robert Steffens	¤	563-2876
338	B A Collins	¤	567-2313
	Linda Herring	¤	589-3714
	C Keegan	81	589-5182
	Laureen Morales	¤	563-1797
	Alison Palmer	83	563-1954
	G Trevisano	83	589-0728
339	B E Senf		589-4553
340	★Dr Robert Frank		567-8183
	L Franks	81	589-5785
	F M Morris	79	567-3245
	Michael OConnell	¤	567-9234
	D Trupp	-	567-3148
341	Barry Weinfurt	80	567-2247
342	D M Freeman	83	567-4968
	John Kearney	83	567-9268
	E Link	79	567-0522
	B Stetler	78	589-8976
	George F Warburton	78	567-4807
	L Wieber	82	567-2959
345	Peter McGorty	77	589-3017
347	Marie Ferrara	¤	567-6202
348	Mark Clement	¤	589-8967
	P Garafola	82	589-4597
	William Green	¤	563-2568
	Thomas A Quinn	82	589-8591
	Peter Relyea	¤	563-2872
350	John R Brady	-	567-9072
	K M Buch	¤	563-2314
	Scott Dale	¤	589-8347
	Brian P Franco	83	563-1742
	P Pienkos	¤	567-4263
371	Robert Furchert	¤	589-7060
450	Thomas G Cameron	80	589-8415
458	Cosimo Roma	79	567-7213
469	★Ozzies Camping Ctr		589-5295
NO #	★Isind Hls GLF Club		589-2200
NO #	★Lakeland Delcatesn		589-1243
NO #	★Lakeland Delcatesn		589-9794
NO #	★H Lannak Golf Shop		563-1492
NO #	★F E Strade Delictn		589-1243
NO #	★Top of Class Cat	¤	563-2303
NO #	★VFW Post 433		589-9674
NO #	Christopher Walsh	83	563-1756
	220 RESIDENCE	18	BUSINESS
●	LAKELAND ST E		11706

Target Street	Cross Street	Source
✓	-	Cole Criss-Cross Directory

LAKELAND AVE 1979

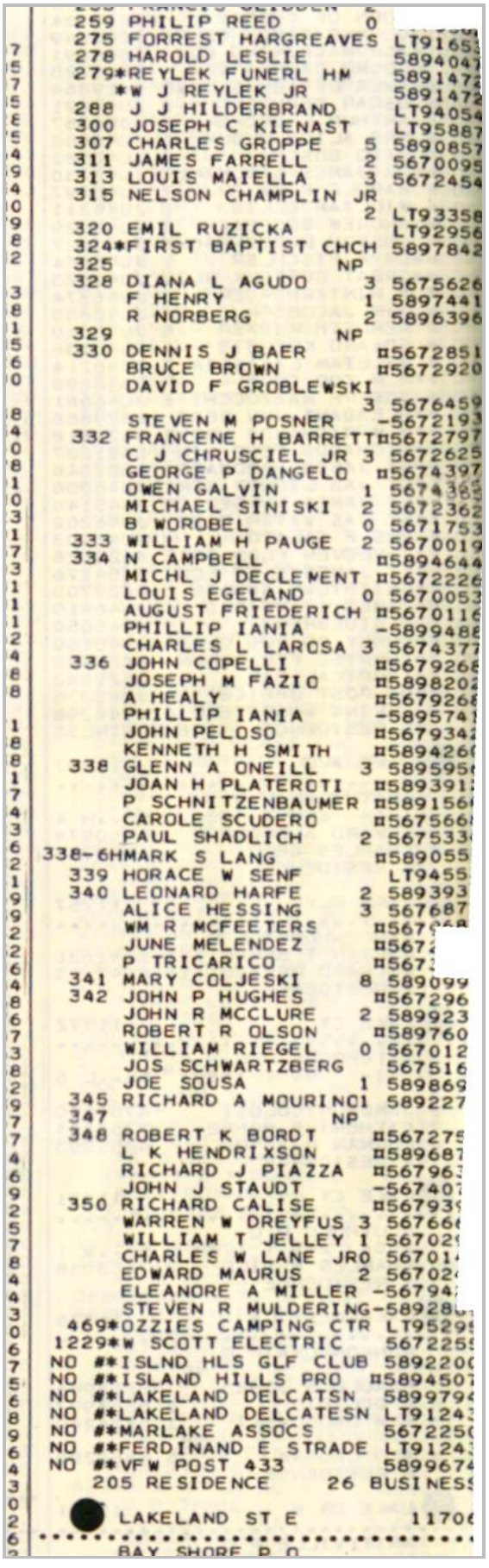


278	Harold Leslie		589-4047
279	★ William F Reylek		589-1472
	★ F R William Jr		589-1472
288	Robert P McAlpine	7	589-4054
300	Joseph C Kienast		589-5887
306	Roy A Kahn	7	589-2969
307	Charles Groppe		589-0857
311	Brian A Koch	5	567-6082
313	R Ciacciarelli	4	567-3736
315	Nelson Champlin Jr	2	589-3358
320	Emil Ruzicka		589-2956
324	★ First Baptist Chch		589-7842
325	Robert Vidal	5	567-0120
328	D A Nugent	-	567-9091
	Richard Visceglia	□	589-4217
329		NP	
330	C Cooney	5	567-6834
	E Crowe	6	567-4199
	Nancy A Hess	6	567-3878
	★ Marlake Assocs		567-2250
	C Rinaldi	□	567-2107
332	Francene H Barrett	4	567-2797
	C J Chrusciel Jr	3	567-2625
	Owen Galvin	1	567-4365
	Michael J Leidig	6	567-6148
333		NP	
334	Michl J Declement	4	567-2226
	Charles L Larosa	3	567-4377
	C OBrien	7	567-0124
	W W Shelbourne	-	589-1224
	D Travis	6	589-3288
	Frieda Voigt	6	567-3432
	J Weston	□	567-0026
336	Charles B Bryson	6	589-1521
	James E Degerstrom	6	567-2475
	Reinhold Felscher	7	589-4963
	David Freeman	7	567-5211
	L Schweizer	□	589-5216
338	Byron Catlin	7	567-6977
	Jerry Feldman	6	567-6832
	Maureen Harrigan	□	567-2376
	Frank W Regan	□	567-2751
339	Horace W Senf		589-4553
340	Michl A Amendolare	7	589-2614
	D Becker	□	589-8813
	Marvin Fisch	6	567-9164
	William S Gieckel	7	567-5123
	William B Roe	6	589-8123
341	C Brady	-	567-2247
342	John King	7	589-8695
	John R McClure	2	589-9234
	Kathy Pepitone	□	589-8343
	Harold Quigley	7	589-3686
	B Stetler	□	589-8976
	George F Warburton	-	567-4807
345	Peter McGorty	7	589-3017
347	Philip Graziano	7	589-8759
348	John Curcio	-	589-3863
	E J Merendino	□	567-5548
	Dennis S Regan Jr	7	589-1446
	Maureen Silvers	7	567-2258
	John J Staudt	4	567-4072
350	J Diver	□	567-6280
	Laurie Gongolski	□	567-6965
	William T Jelley	1	567-0292
	Camilla Kara	7	567-3386
	Charles W Lane Jr	0	567-0149
	Bruce Lund	7	567-6316
450		NP	
469	★ Ozzies Camping Ctr		589-5295
1229	★ W Scott Electric		567-2255
No #	★ Islnd Hls GLF Club		589-2200
No #	★ Lakeland Delcatesn		589-1243
No #	★ Lakeland Delcatesn		589-9794
No #	★ H Lannak Golf Shop		589-1756
No #	★ F E Strade Delictn		589-1243
No #	★ VFW Post 433		589-9674

210 RESIDENCE 25 BUSINESS

Target Street	Cross Street	Source
✓	-	Cole Criss-Cross Directory

LAKELAND AVE 1974



APPENDIX F
SITE QUESTIONNAIRE
AND RELEVANT DOCUMENTS

Kris A
P.W. Grosser Consulting
P: 6315896353
krisa@pwgrosser.com

Property Report by PropertyShark.com

Property Report for:

458 Lakeland Ave, Sayville, NY 11782

A. Your Notes

A1. Your Notes

Notes

View all notes

Watch List

Email me when the property is updated

Your folders

View all folders
Add to folder
New folder name
autocomplete content
Create

B. Overview

B1. Photos

Open Google Street View

Upload photos for this property

B2. Overview

Location

Property address	**458 Lakeland Ave Sayville, NY 11782**
County	**Suffolk**
Section, block & lot	**280-1-2**
Parcel ID	**566190**

Owner

Name	**385 Ih LLC**
Address	**Not available**
Purchase date	**06/22/2017**
Purchase price	**$1,500,000**

Neighborhood

Municipality	**Islip**
School district	**Sayville**

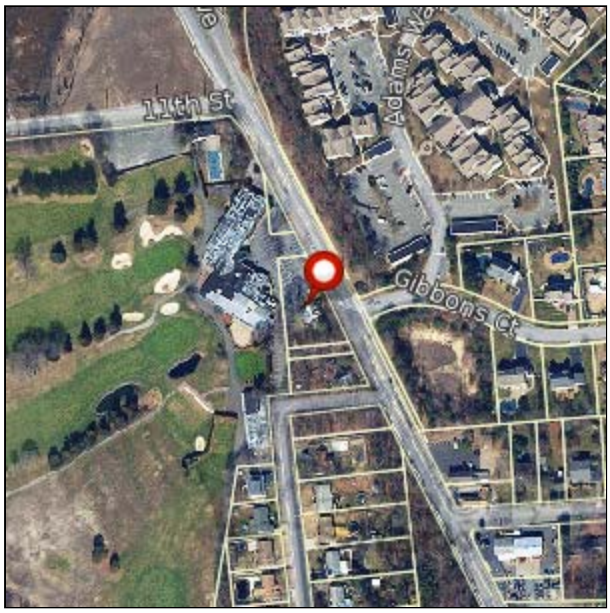
Market Value & Taxes

Tax year	**2017-2018**
Land value	**$216,171**
Building value	**$76,732**
Market value	**$292,904**
Property tax	**$8,616**

Land

Property class	**One Family Year-Round Residence (210)**
Acreage	**0.49**

B3. Maps



B4. Form FNMA - General Appraisal Report

B5. Foreclosures Stats & Trends

B6. Comps Stats & Trends

B7. For Sale

Post Ad

Market your commercial listing for FREE.

Have your listing displayed in front of thousands of potential buyers by posting it in our commercial for sale section. This enables you to:

Market your listing for free - no subscription required.
Reach a targeted audience - thousands of real estate investors visit our commercial for sale section each month.
Promote your listing in great detail - specify the type of property, upload photos, floor plans and much more.

C. Owners & Residents

C1. Registered Owner

385 Ih LLC
Address: Not available
Source: Deed
Last recorded: 07/18/2017

See who is behind the LLC
Add to Address Book

C2. Building Contacts

D. Title History

D1. Liens

D2. Title Documents

Export to Excel (4 records)

Date	Type	Amount	Party1	Party2
6/22/2017 – D 7/18/2017 – R	**Deed** - **M** (Executor)	$1,500,000	Hannigan Raymond Edward McCann J	385 Ih LLC
9/8/2014 – D 9/24/2014 – R	**Deed** - **M** (Bargain and sale)	$10,860,831	Claire G McCann (Tenants in common)	Edward McCann (Tenants in common) Rosellen A McCann (Tenants in common) Eugene McCann (Tenants in common) [+] See the other 1 party
2/14/2001 – D 4/2/2001 – R	**Deed**			
11/4/1996 – D 12/10/1996 – R	**Deed**		Farinacci Donald J McCann Edward J JR & Katherine	McCann Edward J JR & Katherine 212 Plainview Rd Hicksville NY 11801

D: document date
R: recorded date

E. Sales & Value

E1. Valuation Model

Our database has 0 properties that meet the following criteria:

- Sold within the last 18 months
- In the 11782 zip code
- Property class One Family Year-Round Residence
- Sale price over $25,000

Expecting more results? Use our Comparables tool, define your own criteria and browse through recently sold properties.

E2. Neighborhood Price History

All sales of property class 'One Family Year-Round Residence', in the 11782 zip code were analyzed. For each year, median values (sale price and property size) were calculated, together with the value of the subject property (0 sqft), if it were to be sold at median $/sqft.

Year	# of sales	Median price	Median sqft	Median price/sqft	Value at median price/sqft
2018	6	$336,000	0		
2017	181	$399,000	0		
2016	167	$400,000	0		
2015	136	$390,000	0		
2014	132	$387,175	0		
2013	113	$385,000	0		
2012	91	$367,000	0		
2011	84	$388,500	0		
2010	65	$385,000	0		
2009	89	$419,000	0		
2008	80	$448,000	0		
2007	84	$445,000	0		
2006	87	$447,000	0		
2005	117	$455,000	0		
2004	102	$435,000	0		
2003	83	$370,000	0		
2002	84	$315,000	0		
2001	77	$270,000	0		
2000	79	$222,600	0		
1999	88	$187,000	0		
1998	99	$175,000	0		
1997	85	$160,000	0		
1996	71	$157,500	0		
1995	63	$158,000	0		
1994	63	$159,000	0		
1993	72	$150,000	0		
1992	3	$135,000	0		

E3. Sales & Values Maps

Date of Last Sale

Sale age: **334 days**

This map shows the most recent sales around the subject property, with darker colors indicating more recent sales.

- First half of 2018
- Second half of 2017
- First half of 2017
- Second half of 2016
- First half of 2016
- All 2015
- 2013 - 2014
- < 2013
- No data

The map is based only on valid sales with a recorded price over $1000.

Price per Square Foot

On this color-coded map, view the price paid per square foot around the subject property.

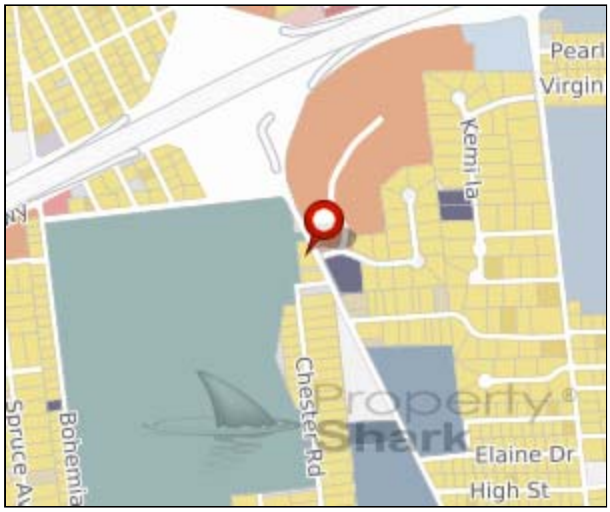
- Below $100
- $100 - $250
- $250 - $400
- $400 - $550
- $550 - $700
- $700 - $850
- $850 - $1000
- Above $1000
- No data

Note: The map displays Price Per Square Foot ($/sqft) for properties sold in the last 5 years.

F. Development & Use

F1. Land Use

On this map, view the current land use for a property. The land use specifies how a property is used or what type of building is present on that property.



Land use: **One Family Year-Round Residence (210)**

- Single family
- 2-4 family
- Condominium/Coop units
- Other residential
- Apartments/Multi-Family
- Commercial condos
- Office
- Retail
- Hotel/Motel/Other accommodation
- Restaurants
- Manufacturing/ Storage facilities
- Other industrial
- Public services/Facilities
- Education
- Cemeteries and other religious
- Hospitals/Care facilities
- Other institutional
- Entertaiment/Recreation
- Agricultural
- Parks
- Forest
- Mixed use
- Vacant land
- Other
- Unknown

F2. Zoning

Properties can be classified by zoning and building class. Suffolk County is divided into four basic zoning districts: residential (R), commercial (C), agricultural(A) and manufacturing (M).These basic zoning districts are subdivided by the intensity of use.

Zoning: **Residential (AAA)**

Major zoning groups:

- Multiple family
- Single family
- Other residential
- Commercial
- Industrial/manufacturing
- Planned development
- Public facilities
- Open space
- Agricultural
- Mixed use
- Special zones
- Planned development - overlay
- No zoning data available

For more information about zoning districts click here.

F3. Urban Landscape Maps

Year Built

On this map, view the year each property was built.

- 2010 and later
- 2000 - 2009
- 1990 - 1999
- 1970 - 1989
- 1950 - 1969
- 1900 - 1949
- 1900 and earlier
- No data

Building Stories

On this map, view the number of stories per building.

- 10 & Up stories
- 7 to 9 Stories
- 5 to 6 Stories
- 4 Stories
- 3 Stories
- 2 Stories
- 1 Story
- No data

G. Property Tax

G1. Tax Bill

Property tax bill for **12/01/2016** to **11/30/2017**	**$8,616**

G2. Detailed Calculation of Property Tax

In New York State, the real property tax is a tax based on the value of real property. Counties, cities, towns, villages, school districts, and special districts each raise money through the real property tax. The money funds schools, pays for police and fire protection, maintains roads, and funds other municipal services enjoyed by residents.

Market Value

Market value is determined by the Department of Taxation and Finance and reflects the amount of money a buyer would be willing to pay a seller for property offered for sale on an open market, over a reasonable amount of time, where both the buyer and seller are well informed and neither is under undue pressure to act.

Land value		$216,171
Building value	+	$76,732
Market value	**=**	**$292,904**

Assessed Value

The assessed value is a uniform percentage of the market value of the property as of January 2 for any given year. For this property, the assessment ratio is 12.12%.

Land assessed value		$26,200
Building assessed value	+	$9,300
Assessed value	**=**	**$35,500**

School Tax Relief Program

STAR is New York State's School Tax Relief Program that provides a partial property tax exemption from school taxes. All New Yorkers who own and live in their home are eligible for the STAR exemption on their primary residence. Also, senior citizens over age 65 may benefit from the Enhanced New York State School Tax Relief (Enhanced STAR).

We have no information about whether this property benefits from School Tax Relief Program.

Exemptions

Suffolk County offers several exemptions that qualified homeowners can apply for, such as Veterans, Senior Citizen, Cold War Veterans, Volunteer Firefighters and Ambulance Workers, Limited Income Disability, or Home Improvement exemptions.

We have no information about whether any exemptions currently apply to this property.

Property Tax

Property tax is calculated by multiplying the assessed value with the corresponding rate per 1000 of assessed value.
Actual taxes might differ from the figures displayed here due to various abatement and financial assistance programs.

Tax description	Assessed value		Tax rate		Tax amount
Suffolk County	$35,500	x	3.6290	=	$128.83
Town Of Islip	$35,500	x	0.0350	=	$1.24
Sayville School District	$35,500	x	18.7770	=	$666.58
Library Rate	$35,500	x	1.2520	=	$44.45
Highway Tax	$35,500	x	0.5780	=	$20.52
Property tax	**$35,500**	**x**	**24.2710**	**=**	**$8,616**

For more information you can visit Town of Islip or Suffolk County's official website.

G3. Exemptions

G4. Assessment History

Year	Property class	Market value	Assessment value	Total tax rate	Property tax
2010	One Family Year-Round Residence	$0	$35,500	196.23	$6,966
2009	One Family Year-Round Residence	$0	$35,500		

G5. Tax per Square Foot

Tax per Square Foot

This map shows property tax in correlation with square footage of the property.

- Above $10.00
- $9.00 - $10.00
- $8.00 - $9.00
- $7.00 - $8.00
- $6.00 - $7.00
- $5.00 - $6.00
- $4.00 - $5.00
- $3.00 - $4.00
- $2.00 - $3.00
- $1.00 - $2.00
- Below $1.00
- No Data

Multiple properties on the same parcel.
Color coordinates with the price ranges above.

H. Neighborhood

H1. Neighbors

Odd Addresses

Address	Property class	Purchase date	Purchase price
315 Lakeland Ave	One Family Year-Round Residence (210)		
325 Lakeland Ave	One Family Year-Round Residence (210)	2/20/1997	$125,000
329 Lakeland Ave	One Family Year-Round Residence (210)	1/21/2009	
333 Lakeland Ave	One Family Year-Round Residence (210)	7/25/2016	$357,000
339 Lakeland Ave	One Family Year-Round Residence (210)	9/20/2013	
341 Lakeland Ave	One Family Year-Round Residence (210)	11/8/2002	$262,500
345 Lakeland Ave	One Family Year-Round Residence (210)	2/26/2008	
347 Lakeland Ave	One Family Year-Round Residence (210)	4/27/2017	$345,000
371 Lakeland Ave	Downtown Row Type (Detached) (482)	3/20/2013	$275,000
469 Lakeland Ave	One Story Small Structure (484)	9/30/2014	$500,000

Even Addresses

Address	Property class	Purchase date	Purchase price
288 Lakeland Ave	One Family Year-Round Residence (210)	10/23/2006	$402,000
300 Lakeland Ave	One Family Year-Round Residence (210)	10/29/1993	$127,500
306 Lakeland Ave	One Family Year-Round Residence (210)	2/6/2007	$385,000
310 Lakeland Ave	One Family Year-Round Residence (210)	10/8/2010	
328 Lakeland Ave	One Family Year-Round Residence (210)		
380 Lakeland Ave	Religious (620)		
400 Lakeland Ave	Social Organizations (534)		
420 Lakeland Ave	Police and Fire Protection, Electrical Signal Equipment and Other Facilities for Fire, Police, Civil Defense, Etc. (662)		
450 Lakeland Ave	One Family Year-Round Residence (210)	6/22/2017	$500,000
500 Lakeland Ave	Private Golf County Clubs (553)	11/21/2017	

H2. Demographics By Zip Code

Demographic data shown in this section was gathered from the 2014 American Community Survey and refers to zip code **11782**.

Population Demographics

Total population	**15,045**
Female population	**53.3%**
Male population	**46.7%**
Median age	**44.2**
Male median age	**41.6**
Female median age	**46.8**

Education

No highschool	**1.5%**
Some highschool or college	**46.9%**
Bachelors degree	**20.6%**

Other

Citizens	**99.1%**
Citizens born in US	**96.3%**
English speakers	**99.4%**

Journey to Work

Work in a metropolitan area	**99.4%**
Work at home	**4.2%**
Go to work by car	**86.6%**
Go to work after 10 am	**11.7%**

Economic/Employment

Average household income	**$125,671**
White collar	**84.9%**
Blue collar	**15.1%**

Housing

Family households	**72.2%**
Households with kids	**35.3%**
Housing units	**6,606**
Occupied housing units	**5,405**
Owner occupied units	**81.7%**
Average number of people per household	**2.72**
Median year structure built	**1963**
Houses with mortgages	**70.4%**

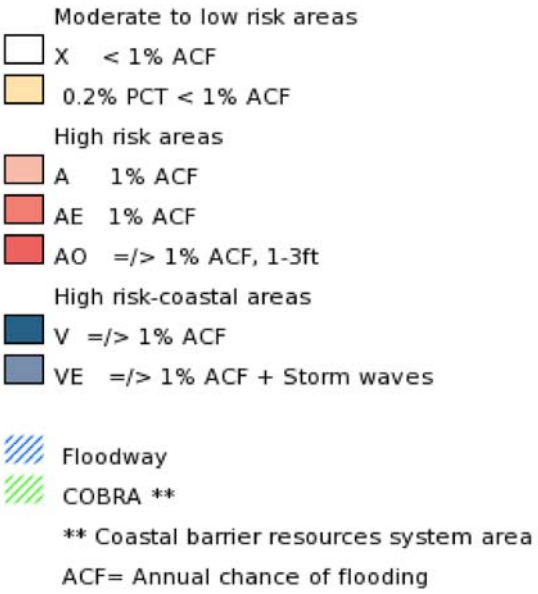
Wealth

Median value for units with a mortgage	**$435,500**
Median value for units without a mortgage	**$392,700**
Median gross rent	**$1,662**
Median housing costs per month	**$2,167**
Population in poverty	**3.6%**

I. Hazards & Environment

I1. FEMA Flood Zones

Use this map to determine if the property is in a flood zone.



FEMA Flood Zoning

FEMA flood zone	**X - Low Risk Area**
Costal barrier resources system area (COBRA)	**Out**
FEMA floodway	**Out**
FEMA special flood hazard area	**Out**

For more information about FEMA flood zones map click here.

Map Details

Map panel ID	**36103C0690H effective from 09/25/2009**

Disclaimer

Copyright 2003-2018 by Property Research Partners LLC

All data comes from government sources. No attempt has been made to validate it. No attempt has been made to validate the accuracy of the programming of this web site. Do not rely on this report to support investment decisions. The only authoritative source for the information in this report is the government agencies from which the data was acquired.

P.W. GROSSER CONSULTING

Key Site Manager Pre-Survey Questionnaire

Name of person completing questionnaire: Bryan Devaux **Date:** 5/23/18

Company: Rechler Equity

Length of association with property: 12 years **Phone #:** 631-414-8407

Property Name/Address: Island Hills Golf Club

PWGC Project #:

Directions: Please read and answer all questions very carefully, to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Supplemental details necessary to explain any yes or unknown responses should be provided in the "Comments" column. Note: U/NR indicates "Unknown" or "No Response," and "N/A" indicates not applicable. If "Comment" box proves too small to fit your comment please attach an additional form with your full response.

QUESTION		RESPONSE			COMMENTS
		Y	N	U/NR	
1A.	Is the property used for an industrial use?		X		
1B.	Are any adjoining properties used for an industrial use?		X		
2A.	To the best of your knowledge, has the property had an industrial use in the past?		X		
2B.	To the best of your knowledge, has the adjoining properties been used for an industrial use in the		X		
3A.	Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junk yard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		X		
3B.	Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junk yard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		X		
4A.	To the best of your knowledge, has the property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junk yard or landfill, or as a waste treatment, storage, disposal, processing, or		X		
4B.	To the best of your knowledge, has any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junk yard or landfill, or as a waste treatment, storage, disposal, processing, or		X		
5A.	Are there currently any automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers greater than five gallons in		X		

	gallons in the aggregate, stored on or used at the subject property?				
5B.	To the best of your knowledge, have there been previously any automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than five gallons in volume or 50 gallons in aggregate, stored or used at the subject	X			Historically Turf Maintenance Chemicals When Course Was operating
6A.	Are there currently any industrial drums (typically 55 gallon) or sacks of chemicals located on the		X		
6B.	To the best of your knowledge, have there been previously any industrial drums (typically 55 gallon) or sacks of chemicals located at the property?	X			Yes see above
7A.	Is there currently any groundwater monitoring wells or other groundwater wells (i.e., potable drinking water wells) located on the property?	X			Yes Monitoring Wells (New) and irrigation well
7B.	To the best of your knowledge, have there been previously any groundwater monitoring wells or other groundwater wells (i.e., potable drinking water wells) located on the property?	X			See above
8A.	Has fill dirt been brought onto the property which originated from a contaminated site?		X		
8B.	Has fill dirt been brought onto the property which is of an unknown origin?		X		
9A.	Are there currently any pits, ponds or lagoons located on the property in connection with waste treatment or waste disposal?		X		
9B.	To the best of your knowledge, has there been previously any pit, ponds or lagoons located on the property in connection with waste treatment or waste		X		
10A.	Is there currently, any stained soil on the property?		X		
10B.	To the best of your knowledge, has there been previously any stained soil on the property?		X		
11A.	Are there currently any registered or unregistered storage tanks (above or underground) located on the	X			3 Fuel oil ASTs
11B.	To the best of your knowledge, have there been previously any registered or unregistered storage tanks (above or underground) located on the property?	X			Historic tanks associated with HL S. Maintence Area
12A.	Are there currently any vent pipes, fill pipes or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?		X		
12B.	To the best of your knowledge, have there been previously any vent pipes, fill pipes or access way indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the		X		
13A.	Are there currently any flooring, drains, or walls located at the property that are stained by substances other	X	X		Minor oil stain in Maintence garage

	water or are emitting foul odors?				
13B.	To the best of your knowledge, have there been previously any flooring, drains, or walls located at the property that are stained by substances other than water or are emitting foul odors?		X		
14A.	If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system?		X		
14B.	If the property is served by a private well or non-public water system has the well been designated as contaminated by any government environmental/health agency?		X		
15A.	Have you been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the	X			Yes Past fuel Maintence chemicals
15B.	Have you been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the		X		
16A.	Are there any environmental liens or governmental notification relating to past or current violations of environmental laws with respect to the property or any facility located on the property?		X		
16B.	Have you been informed of the past existence of environmental violations with respect to the property or any facility located on the property?		X		
16C.	Are you aware of any pending, threatened, or past litigation relevant to hazardous substances of petroleum products in, on or from the property?		X		
16D.	Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		X		
16E.	Are you aware of any notices from any governmental entity regarding any possible violation or environmental laws or possible liability relating to hazardous substances or petroleum products?		X		
17.	Have there been any environmental site assessments of the property that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?	X			Yes Past Phase I + II
18.	Does the property discharge waste water on or adjacent to the property, other than storm water, into a storm water sewer system?		X		
19.	Does the property discharge waste water on or adjacent to the property, other than storm water, or into a sanitary system?		X		

20.	Have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the property?	X			There is Brush Debris areas
21.	Is there a transformer, capacitor or any hydraulic equipment for which there are any records indicating the presence of PCBs?		X		
22.	Is there now or has there ever been any asbestos-containing materials (ACM), in any application, on the property?			X	
23.	Has there ever been any ACM testing conducted on the property?		X		
24.	Is there any asbestos Operations and Maintenance (O&M) program in place at the property?	X			Reckler Has corporate OM+M ~~HASP~~ for asbestos
25.	Is the now or has there ever been any lead-based paint (LBP) applications on the property?			X	
26.	Has there ever been LBP testing conducted on the property?		X		
27.	Is there a Lead Paint Operations and Maintenance (O&M) Program in place at the property?		X		
28.	Has the water at the property ever been tested for lead?		X		Building to be Demo'd
29.	Has Radon testing ever been conducted at the property?		X		
30.	Are there any other Operations and Maintenance (O&M) programs in place that we should be made aware of?		X		
31.	Is the property or any portion of the property located or involved in any environmentally sensitive areas (i.e., wetlands, coastal barrier resource areas, coastal barrier improvement act areas, flood plains, endangered species, etc.)?		X		
32.	Do you know or suspect that mold was or is present in the building(s) or HVAC system?	X			Yes but Business unoccupied & Planned to be demolished
33.	Are there reliable procedures that specify the actions (i.e. operations and maintenance) to be taken to prevent and/or respond to mold or mold producing problems?		X		
34.	Is there a mold Operations and Maintenance (O&M) program in place at the property?		X		
35.	Is the HVAC system inspected at least annually?		X		Site Vacant
36.	Have identified HVAC problems been corrected in a timely manner?				
37.	Is there now, or has there ever been evidence of mold or mildew present at the building(s)? If so, when?	X			yes structure has been vacant

38.	Is there now, or has there ever been any water damage in the building(s), whether from flooding, plumbing, roof leaks, or other sources? If so, when?	X			Roof leaks since Building has been unoccupied
39.	Has there ever been any sort of Indoor Air Quality (IAQ) or mold testing conducted in the building(s)?		X		
Summarize historical property use (when was the property developed with the current improvements, what modifications have taken place, what was the property used for prior to its' current use)					See provided Documents

P.W. GROSSER CONSULTING

Owner Questionnaire

P.W. Grosser Consulting Inc. (PWGC) has been contracted to perform a Phase I Environmental Site Assessment (ESA) of the property listed below. The Phase I investigation will include site observations, interviews, and review of available documentation. To ensure the success of the assessment, and in accordance with the ASTM 1527-13, we are required to ask the following question of the owner or opener's representative. If you could please complete this questionnaire and return it via email within one business day of receipt it will allow us to complete the Phase I ESA in a timely and efficient manner.

Name of person completing questionnaire: Bryan Deveaux **Date:** 5/23/18

Company: Kechler Equity

Length of association with property: 12 years **Phone #:** 631-414-8407

Property Name/Address: Island Hills **PWGC Project #:**

Please Check One: [ ] Owner [X] Owner Representative

Directions: Please read and answer all questions very carefully, to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Supplemental details necessary to explain any yes or unknown responses should be provided in the "Comments" column. Note: U/NR indicates "Unknown" or "No Response," and "N/A" indicates not applicable. If "Comment" box proves too small to fit your comment please attach an additional form with your full response.

		Question	Y	N	U/NR	Comment
1		Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?		X		
2		Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		X		
3		Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		X		
4		Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?		X		
5		Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?		X		

6		Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:	X			See provided Documents
	6(a)	Do you know past uses of the property?	X			
	6(b)	Do you know of specific chemicals that are present or once were present at the property?	X			
	6(c)	Do you know of any spills or other chemical releases that have taken place at the property?		X		
	6(d)	Do you know of any environmental cleanups that have taken place at the site?	X			

In addition, are you aware of any of the following documents, and if so, please forward copies of the document(s) to P.W. Grosser Consulting at 630 Johnson Ave, Ste 7, Bohemia, NY 11716-2618 (along with a copy of this form):

Helpful Documents to be forwarded to PWGC:

__ Environmental site assessment reports (i.e. Phase I or II, tank testing results, radon, lead paint, or asbestos testing, etc.)
__ Environmental compliance audit reports; risk assessments; and recorded Activity and Use Limitations (AULs)
__ Environmental permits (i.e. solid waste disposal, hazardous waste disposal, wastewater, NPDES, etc.)
__ Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs)
__ Registrations for underground injection systems
__ Material safety data sheets
__ Community right to know plan
__ Safety plans; preparedness and prevention plans; spill prevention, countermeasure/control plans, etc.
__ Reports regarding hydrogeological or geotechnical conditions on the property and surrounding area
__ Notices/correspondence from any agency relating to past or current violations of environmental laws, or liens encumbering the property
__ Hazardous waste generator notices or reports
__ Other:

P.W. GROSSER CONSULTING

Client Questionnaire

P.W. Grosser Consulting Inc. (PWGC) has been contracted to perform a Phase I Environmental Site Assessment (ESA) of the property listed below. The Phase I investigation will include site observations, interviews, and review of available documentation. To ensure the success of the assessment, and in accordance with the ASTM 1527-13 which documents certain user responsibilities, we are submitting this questionnaire to assist you in meeting those responsibilities. If you could please complete this questionnaire and return it via email within one business day of receipt it will allow us to complete the Phase I ESA in a timely and efficient manner.

Name of person completing questionnaire: Bryan Devaux

Date: 5/23/18

Company: Rechler Equity

Length of association with property: 12 years

Phone #: 631-414-8407

Property Name/Address: Island Hills Golf Club

PWGC Project #:

Directions: Please read and answer all questions very carefully, to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Supplemental details necessary to explain any yes or unknown responses should be provided in the "Comments" column. Note: U/NR indicates "Unknown" or "No Response," and "N/A" indicates not applicable. If "Comment" box proves too small to fit your comment please attach an additional form with your full response.

		Question	Y	N	U/NR	Comment
1		Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?		X		
2		Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?		X		
3		Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		X		
4		Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?		X		
5		Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?		X		

		Question	Y	N	U/NR	Comment
6		As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or previous occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?		X		
7		Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be				Refinance / Zoning Change. No Purchase
8		Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened	X			See Provided Documents
	8(a)	Do you know past uses of the property?	X			
	8(b)	Do you know of specific chemicals that are present or once were present at the property?	X			
	8(c)	Do you know of any spills or other chemical releases that have taken place at the property?	X			
	8(d)	Do you know of any environmental cleanups that have taken place at the site?	X			
9		As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the	X			

In addition, are you aware of any of the following documents, and if so, please forward copies of the document(s) to P.W. Grosser Consulting at 630 Johnson Ave, Ste 7, Bohemia, NY 11716-2618 (along with a copy of this form):

Helpful Documents to be forwarded to PWGC:

__Environmental site assessment reports (i.e. Phase I or II, tank testing results, radon, lead paint, or asbestos testing, etc.)
__Environmental compliance audit reports; risk assessments; and recorded Activity and Use Limitations (AULs)
__Environmental permits (i.e. solid waste disposal, hazardous waste disposal, wastewater, NPDES, etc.)
__Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs)
__Registrations for underground injection systems Material safety data sheets
__Community right to know plan
__Safety plans; preparedness and prevention plans; spill prevention, countermeasure/control plans, etc.
__Reports regarding hydrogeological or geotechnical conditions on the property and surrounding area
__Notices/correspondence from any agency relating to past or current violations of environmental laws, or liens encumbering the property
__Hazardous waste generator notices or reports
__Other:

Please Enter Additional Comments on This Page

See Provided Documents

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Island Hills Golf Club (Parcels 1 and 2)

Sayville, New York

Prepared for:
R Squared LLC
555 Madison Ave, 12th Floor
New York, NY 10022

Project No.: RSL0501

Prepared by:

P.W. Grosser Consulting , Inc.
630 Johnson Avenue, Suite 7
Bohemia, NY 11716
Phone: (631) 589-6353
Fax: (631) 589-8705
Project Director: Lisa Santoro Email: lisas@pwgrosser.com
Project Manager: Bryan Devaux Email: bryand@pwgrosser.com

April 2006

PWGC
Strategic Environmental & Engineering Solutions

CONTENTS

Page

LETTER OF TRANSMITTAL ES-1

1.0 INTRODUCTION 1
1.1 Objectives 1
1.2 Methodology 1
1.3 Limitations 1

2.0 SITE OVERVIEW 4
2.1 Location 4
2.2 Site Description 4
2.3 Adjoining/Surrounding Properties 4

3.0 HISTORICAL INFORMATION 5
3.1 Site History 5
3.2 Sanborn Map Review 5
3.3 Aerial Photograph Review 5
3.4 Previous Environmental Reports/Investigations 5

4.0 ENVIRONMENTAL SETTING 7
4.1 Regional Physiographic Conditions 7
4.1.1 Flood Potential 7
4.1.2 Direction and Distance to the Nearest Surface Water 7
4.1.3 Wetland Delineation 7
4.2 Regional Geology 7

CONTENTS (Continued)

4.3 Soil Characteristics 8
4.4 Groundwater Characteristics 8
4.5 Radon Risk Evaluation 9

5.0 SITE INSPECTION OBSERVATIONS 10
5.1 Site Observations and Inquiries 10
5.1.1 Date and Time of Inspection 10
5.1.2 Individuals Conducting the Site Inspection 10
5.1.3 Site Representatives Present During the Site Inspection 10
5.1.4 Inspection Process 10
5.1.5 Surface Access and Egress 10
5.1.6 Variations in Surface Vegetation 11
5.1.7 Water Bodies 11
5.1.8 Railroad Spurs and Electrical Transmission Lines 11
5.2 Water Supply and Wastewater Disposal 12
5.3 Storm Water Disposal 12
5.4 Aboveground Storage Tanks 12
5.5 Underground Storage Tanks 12
5.6 Hazardous and Non-Hazardous Waste Storage and Disposal 13
5.7 Radioactive Materials 13
5.8 Landfills, Dumps, or Direct Burial Activities 13
5.9 Polychlorinated Biphenyl (PCB) - Containing Material 13
5.10 Air Emissions 13
5.11 Asbestos 13
5.12 Lead-Based Paint (LBP) 14
5.13 Mold 14

CONTENTS (Continued)

6.0 REGULATORY AGENCY REVIEW 16
6.1 Regulatory Database Search/Review 16
6.1.1 Federal Databases 16
6.1.2 New York State Databases 19
6.1.3 EDR and Brownfield Databases 22
6.2 Freedom of Information Act (FOIA) Requests 23

7.0 PHASE I FINDINGS 24

FIGURES

No. Description
1 Vicinity Map
2 Site Plan

APPENDICES

APPENDIX A - SITE PHOTOGRAPHS
APPENDIX B – HISTORIC TOPOGRAPHIC MAPS
APPENDIX C – HISTORIC AERIAL PHOTOS
APPENDIX D – PREVIOUS ENVIRONMENTAL REPORTS
APPENDIX E - EDR RADIUS MAP REPORT
APPENDIX F - FREEDOM OF INFORMATION ACT REQUESTS

1.0 INTRODUCTION

1.1 Objectives

R Squared LLC retained P.W. Grosser Consulting, Inc. (PWGC) to conduct a Phase I Environmental Site Assessment (ESA) of Parcels 1 and 2 located at 458 Lakeland Avenue, Sayville, New York. The site location is shown on Figure 1. The purpose of the Phase I ESA was to identify and evaluate the presence of recognized environmental conditions at the subject site. The work was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-00 (Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process) and PWGC's proposal for services.

1.2 Methodology

The assessment consisted of a visual inspection of the site and surrounding areas, interviews, a review of historical information and aerial photographs, and a review of pertinent local, state, federal and facility records. Mr. Bryan A Devaux of PWGC inspected the site on November 30, 2005. Environmental Data Resources (EDR) of Southport, Connecticut provided the following: a computerized database search of environmental compliance records of sites within an ASTM standard radius of the property, a Sanborn fire insurance map search, and historical aerial photograph search.

PWGC reviewed the environmental database report compiled by EDR as a part of the assessment. The purpose of the review was to identify reported listings for the subject property or other properties in the site vicinity. Databases reviewed included federal and state lists of known or suspected contaminated sites, lists of known handlers or generators of hazardous waste, lists of known waste disposal facilities, and lists of aboveground and underground storage tanks (ASTs and USTs). PWGC's review of the database report has been incorporated into this report along with a copy of the EDR report.

1.3 Limitations

The conclusions presented in this report are professional opinions based on the data described in this report. These opinions have been arrived at in accordance with currently accepted engineering and hydrogeologic standards and practices applicable to this location, and are subject to the following inherent limitations:

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

1. The data presented in this report are from visual inspections, examination of records in the public domain, and interviews with individuals having information about the site. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration of the site, analysis of data, and re-evaluation of the findings, observations, and conclusions presented in this report.

2. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. The scope of work was defined by the request of the client.

3. No warranty or guarantee, whether expressed or implied, is made with respect to the data reported, findings, observations, or conclusions. These are based solely upon site conditions in existence at the time of the investigation, and other information obtained and reviewed by PWGC.

4. PWGC's Phase I ESA report presents professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, or regulations, or policies of federal, state, or local government agencies. PWGC does not assume liability for financial or other losses or subsequent damage caused by or related to any use of this document.

5. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, site location, and project indicated. This report is not a definitive study of contamination at the site and should not be interpreted as such.

6. This report is based, in part, on information supplied to PWGC by third-party sources. While efforts have been made to substantiate this third-party information, PWGC cannot attest to the completeness or accuracy of information provided by others.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

7. This report was prepared for the exclusive use of R Squared LLC. PWGC assumes no liability for use of this report by any person or entity other than the client for which it was prepared.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

2.0 SITE OVERVIEW

2.1 Location

The subject property is known as Parcels 1 and 2 of Island Hills Golf Club located at 458 Lakeland Avenue, The subject parcels consists of four acres located west of Lakeland Avenue and north of Chester Road. The subject site is located in the Town of Islip and in Suffolk County. Figure 1 illustrates the site location on the United States Geological Survey (USGS) 7.5-minute series topographic map for the Patchogue, New York quadrangle.

2.2 Site Description

Parcels 1 and 2 are a total of four acres in size. The subject area consists of a parking lot to the Island Hills Golf Club Clubhouse and two residential homes designated at the northern and southern residence. The northern residence is currently used as the Green's Keepers residence. A narrow 25' x 170' vacant lot is present between the two residential lots. Photos of the site are included in Appendix A and a site plan is shown on Figure 2.

2.3 Adjoining/Surrounding Properties

The general area is comprised of mainly commercial and residential properties. A summary of the surrounding properties is as follows:

North	North of the subject site is the remainder of the Island Hills Golf Club Clubhouse parking lot.
South	Chester Street. Residential homes are located beyond Chester Street.
East	Lakeland Avenue. Vacant wood property is located beyond Lakeland Avenue.
West	The Island Hills Golf Club clubhouse and courses are located to the west of the subject property.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

3.0 HISTORICAL INFORMATION

3.1 Site History

Based upon PWGC's conversation with representatives from the Island Hills Golf Club and the current building tenants, the age of the two residential structures is unknown. Based upon the building construction, PWGC places the age of the buildings at mid to late 1950s.

3.2 Sanborn Map Review

Environmental Data Resources (EDR) was retained to provide historical Sanborn fire insurance maps of the subject and adjacent properties. Based upon the information provided to PWGC by EDR, there is no Sanborn Map coverage for the site area. A review of the historic topographic maps for the site dating back to 1904 showed no significant changes in site topography. Copies of the topographic Maps are included in Appendix B.

3.3 Aerial Photograph Review

PWGC performed a review of readily available aerial photographs showing the subject and surrounding properties. Photographs from 1954, 1966, 1976, 1980 and 1994 were reviewed. The review is summarized as follows:

1954	The Island Hills Golf Club golf course is present. The clubhouse building appears smaller than the current structure. The two residential homes appear to be present. The current parking lot area appears to be wooded in 1954.
1966	The area appears quite similar to the current conditions with the larger clubhouse building. The parking lot appears to be cleared.
1976, 1980 & 1994	The area appears quite similar to the current conditions.

A copy of the aerial photograph search is included in Appendix C.

3.4 Previous Environmental Reports

PWGC obtained a one page fax from the Suffolk County Department of Health Services pertaining to the Island Hills Golf Club. According to their records, a groundwater monitoring well was installed at the property as part of the Counties Pesticide / herbicide monitoring program. The fax includes tabulated well results from

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

the monitoring well. The information obtained from the Health Department does not indicate the well location. Based upon and review of the laboratory results, it appears that the groundwater obtained from the well was within groundwater standards for each of the sampled parameters. No evidence of this well was observed in the subject area or the immediate vicinity. A copy of the table is included in Appendix D.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

4.0 ENVIRONMENTAL SETTING

4.1 Regional Physiographic Conditions

The topography of the site and surrounding area was reviewed from the USGS 7.5-minute series topographic map for the Patchogue, New York quadrangle. The subject property has an elevation of approximately 18 feet above the National Geodetic Vertical Datum (NGVD). The property and surrounding areas are relatively flat.

4.1.1 Flood Potential

PWGC reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) to determine if the subject property is located within the 100-year or 500-year flood zones. The FIRM showing the property (No. 36103C0688G) indicates that the entire property is located outside the 100-year and 500-year flood zones. This indicates that there is a minimal risk of flooding at the subject property.

4.1.2 Direction and Distance to Nearest Surface Water

The nearest natural surface water body is Green Creek located approximately 2,000 feet south-southeast of the property.

4.1.3 Wetland Delineation

A review of the NYSDEC Freshwater Wetland Map, Patchogue Quadrangle, indicates that freshwater wetlands are located approximately ½ mile south of the subject property and associated with the headwaters of Green Creek.

4.2 Regional Geology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. At the subject property, bedrock occurs at an approximate depth of 1700 feet below land surface .(Suter, W De Laguna, N Perlmutter, 1949).

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan Clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The depth to the top of the Lloyd at the site is approximately 1300 feet below land surface and the aquifer is approximately 300 feet thick. The Raritan clay occurs at approximately 950 feet below grade. The average thickness of the Raritan clay in the vicinity of the site is 350 feet. The Raritan clay is relatively impermeable, and effectively hydraulically isolates the Lloyd Aquifer from overlying aquifers. The Raritan Clay is a solid and silty clay with: few lenses of sand and gravel; abundant lignite and pyrite; and gray, red or white in color.

Above the Raritan Clay lies the Magothy Formation, which is a prolific aquifer. The Magothy Aquifer consists of layers of fine to coarse sand of moderate to high permeability, with interbedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The depth to the top of the Magothy is approximately 90 feet below land surface and is estimated to be 860 feet thick in the area of the subject property.

The Magothy Aquifer is overlain by the Upper Glacial Aquifer. The Upper Glacial Aquifer is the water table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the land surface to the top of the Magothy and, therefore, is hydraulically connected to the Magothy Aquifer.

4.3 Soil Characteristics

Soils at the site are classified by the United States Department of Agriculture's Soil Conservation Service as Riverhead Soils, which are defined as sandy loams with moderate infiltration rates. Soils are deep, moderately well drained to well drained sands with high hydraulic conductivity and low water holding capacity. Additional information regarding the soil classification is also included in the EDR report (Appendix E, Page A-4).

4.4 Groundwater Characteristics

Based upon Suffolk County Department of Health Service (SCDHS) groundwater elevation maps and the site topography, PWGC estimates groundwater to be approximately 10 feet below grade. The regional

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

groundwater flow direction is to the south. No public supply wells were identified within a one mile radius of the subject property.

4.5 Radon Risk Evaluation

Radon is a colorless, radioactive; inert gas formed by the decay of radium and may be present in soils and rocks containing granite, shale, phosphate and pitchblende. USEPA's "Map of Radon Zones for New York State," September 1993 indicates that the Sayville area is not a radon risk area. The EDR report provides information from the New York State Department of Health radon survey which indicates that 98% of those sites tested in Suffolk County were below the United States Environmental Protection Agency (USEPA) radon action level of 4 Pico curies per liter (pCi/L).

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

5.0 SITE INSPECTION OBSERVATIONS

5.1 Site Observations and Inquiries

Observations made during the site inspection are presented below.

5.1.1 Date and Time of Inspection

PWGC performed the site inspection on November 30, 2005 beginning at 10:00 A.M. Weather conditions during the inspection were overcast with light rain, with a temperature of approximately 45º Fahrenheit. PWGC was given access to the southern residential home on February 21, 2006 and completed the inspection on that date.

5.1.2 Individuals Conducting the Phase I Site Inspection

Mr. Bryan Devaux conducted the site inspection. Mr. Devaux is an experienced professional in the field of environmental compliance, Phase I and II environmental site assessments and related environmental investigations. Rocky Wenskus conducted the inspection of the interior of the southern residential home. Copies of both Mr. Devaux and Mr. Wenskus' resumes are attached.

5.1.3 Site Representatives Present During the Inspection

Mr. Luigi Salcedo, of R Squared LLC, representing the buyer of the property was onsite during the inspection. Doug the office manager of Island Hills Golf Club were present to give us access to the property, but were not present during the inspection for questioning. [Question: Can we identify the representatives?]

5.1.4 Inspection Process

The site inspection consisted of an inspection of the outer property boundaries, followed by an inspection of the interior of the residential homes.

5.1.5 Surface Access and Egress

The site is located on the west side of Lakeland Avenue and North of Chester Street. Access to the property is via Lakeland Avenue.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

5.1.6 Variations in Surface Vegetation

The site is about 40% covered by the buildings and asphalt paving. The residential yard areas and vacant lot were primarily vegetated. No signs of stressed vegetation were observed.

5.1.7 Water Bodies

No surface water bodies are located on the subject property.

5.1.8 Railroad Spurs and Electrical Transmission Lines

No rail lines are present on or in the vicinity of the site. Electric lines run above ground along Lakeland Avenue.

5.2 Water Supply and Wastewater Disposal

Water is supplied to the property by the Suffolk County Water Authority. Waste water for the residential buildings is reported to discharge to onsite sanitary systems. PWGC also observed several sanitary structures covers on the subject property, in the parking lot east of the Clubhouse building. An evaluation of the sanitary system revealed that it consists of two separate systems. One system consists of a single leaching pool which is located on the subject property. The second system consists of a septic tank, a distribution tank and five primary cesspools. PWGC assessed the structures and believes that the structures are related to waste discharges from the clubhouse building. PWGC was able to conduct a limited walkthrough of the southern portion of the clubhouse building and determined that the sanitary structures are associated with bathrooms and sinks in the catering hall / bar portion of the clubhouse. PWGC did not observe any hazardous chemicals or equipment maintenance areas in the portion of the building which was serviced by the sanitary systems. Since it is possible that the Clubhouse may have also been used for storage of chemicals and/or maintenance activities over the fifty plus years the building has existed, PWGC recommends sampling of the cesspool in the system which contained the single cesspool. In addition, PWGC recommends collecting samples from each of the five cesspools in the other sanitary system and submitting the two samples which based upon visual inspection appear to represent the worst case conditions.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

5.3 Storm Water Disposal

Storm drains and floor drains that discharge directly to subsurface soils pose a potential environmental concern because they provide a pathway for impacts to the subsurface, and are classified as Class V injection wells under the USEPA's Underground Injection Control (UIC) program.

Stormwater discharge on the parking lot portion of the subject property is handled by two stormdrains and several overflow pools located within the parking lot. No signs of staining or impact were observed in the vicinity of the drains. Stormwater discharge at the residential and vacant lots is handled by infiltration.

In the basement of the northern home, adjacent to the oil burner, a 4 inch diameter hole was present in the concrete floor. It appeared that this drain was used to discharge water from the boiler during maintenance. There were no signs of oil staining in the basement or in the vicinity of the floor drain. PWGC recommends that the drain be closed as per SCDHS protocols.

An inspection of the southern residential home revealed no signs of floor drains in the unfinished areas. PWGC was unable to inspect finished areas of the basement which were covered by carpet.

5.4 Aboveground Storage Tanks

A 275 gallon fuel tank was present within the basement of both of the residential homes. The tanks were in good condition and no signs of leaks were observed.

5.5 Underground Storage Tanks

No evidence of underground storage tanks (USTs) such as vents or fills were observed in the subject property.

5.6 Hazardous and Non-Hazardous Waste Storage and Disposal

PWGC observed some typical house hold cleaning chemicals in the two residential homes. There was no indication that any of these chemicals has impacted the environment.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

An inspection of the southern residence revealed the presence of gas and oil storage associated with the lawnmower and yard equipment. A small area of oil staining (3-4 square feet) was present. PWGC also observed two five gallon pails that looked as if they may have contained oil. The pails contained rainwater at the time of the inspection and the soil in the vicinity of the pail showed some signs of staining. As with the other location, the staining was quite limited. Due to the limited nature of the staining, PWGC believes that it is not necessary to report a spill and that it is not indicative a significant environmental hazard. However, PWGC recommends proper disposal of the standing liquids as a housekeeping issue.

5.7 Radioactive Materials

No obvious radioactive materials (labeled containers or equipment) were observed on the property or in the building at the time of the site visit.

5.8 Landfills, Dumps, or Direct Burial Activities

The vacant strip of property located between the two residential homes showed some signs of dumping. It appears that the homeowners of both homes have been throwing lawn debris over the fence. The dumped materials consisted of grass clippings, leaves and branches. There was no indication that hazardous materials were disposed of in the vacant lot.

5.9 Polychlorinated Biphenyls (PCBs)

There was no evidence of potential PCB containing equipment, such as transformers, hydraulic lifts, hydraulic elevators, onsite.

5.10 Air Emissions

There was no evidence of air emissions on the subject property.

5.11 Asbestos

PWGC inspected the northern residence for signs of Presumed Asbestos Containing Material (PACM) and none were observed in the building. In the southern residence, PWGC did observe approximately 10 linear feet pipe insulation which appeared to contain asbestos. Due to the poor (friable) condition of the insulation PWGC recommends that the material be removed.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Based upon the construction date of both of the buildings (mid 1950's) it is likely that PACM is present within the building. Materials which are in good condition and are not likely to release fibers may remain. Friable and damaged materials should be removed.

Thermal insulation, surfacing materials, and vinyl/asphalt floor materials installed before 1981 are presumed to contain asbestos. Should future plans for the property include demolition of the existing structures, removal of asbestos containing material may be required prior to demoltion.

5.12 Lead-Based Paint (LBP)

The consumer Product Safety Commission banned the manufacture of lead based paint for residential and commercial applications in 1978. Federal regulations enforced the ban in 1993. Since both residential structures structure was built prior to the 1978 ban went into effect, it is likely that lead based paint is present in the building. No signs of cracked or peeling paint were observed in the two residential homes. If peeling paint if found within the building, it should be properly removed or repaired.

5.13 Mold

As part of the assessment, PWGC performed a limited visual inspection for the presence of mold. A class of fungi, molds have been found to cause a variety of health problems in humans, including allergic, toxicological, and infectious responses. Molds are decomposers of organic material, and thrive in humid environments. Molds produce spores to reproduce, just as plants produce seeds. When mold spores land in a damp location indoors, they may begin growing and digesting whatever they are growing on to survive. When excess moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations for mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation, and carpeting often play host to such growth. Moisture control is the key to mold control. Mold needs both food and water to survive; since mold can digest most things, water is the factor that limits mold growth.

The EPA recommends the following action to prevent the amplification of mold growth in buildings.

- Fix leaky plumbing and leaks in the building envelope as soon as possible.
- Watch for condensation and wet spots. Fix sources of moisture as soon as possible.
- Keep heating, ventilation and air conditioning (HVAC) drip pans clean, flowing properly and unobstructed.
- Vent moisture generating appliances, such as dryers outside when possible.
- Maintain low indoor humidity, below 60% when possible.
- Perform regular building / HVAC inspections.
- Clean and dry wet or damp spots within 48 hours.
- Don't let foundations stay wet, provide drainage and slope ground away from the foundation.

The site inspection did not indicate the presence of mold growth.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

6.0 REGULATORY AGENCY REVIEW

6.1 Regulatory Database Search/Review

Environmental Data Resources (EDR) of Southport, Connecticut was retained to provide a computerized database search of the project area within an ASTM-standard radius of the subject property. A list of the databases searched and the search radius is shown on the summary table below. PWGC reviewed the database output to determine if the property appears on any of the regulatory agency lists. Detailed information concerning each database list is provided in the EDR report (Appendix C).

6.1.1 Federal Databases

The table below summarizes the Federal databases that were searched.

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
USEPA	National Priorities List Report	NPL	1.0 mile
USEPA	Comprehensive Environmental Response Compensation and Liability Act Registry	CERCLIS	0.5 mile
USEPA	Resource Conservation and Recovery Act Treatment/Storage/Disposal Facilities	RCRIS TSD	0.5 mile
USEPA	Resource Conservation and Recovery Act Small/Large Quantity Hazardous Waste Generators	RCRIS SQG/LQG	0.25 mile
USEPA	Corrective Action Reports	CORRACTS	0.5 mile
USEPA	Facility Index System Database	FINDS	0.5 mile
USEPA	Emergency Response Notification System	ERNS	Target Site
USEPA	Superfund (CERCLA) Consent Decrees	CONSENT	1.0 mile
USEPA	Records of Decision	ROD	1.0 mile
USEPA	Mines Master Index	MINES	0.25 mile

National Priority List

The National Priority List (NPL) is the Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the federal Superfund Program.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Neither the subject property nor any property within 1 mile of the subject property is listed as a NPL facility.

CERCLIS

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

Neither the subject property nor any property within ½ mile of the subject property is listed as a CERCLIS facility.

RCRA Treatment, Storage and Disposal

The EPA Resource Conservation and Recovery Act (RCRA) program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Treatment, Storage and Disposal (TSD) database is a compilation of reporting facilities that treat, store or dispose of hazardous waste.

Neither the subject property nor any property within ½ mile of the subject property is listed as a RCRA TSD site.

RCRA Generators

The RCRA Generators database is a compilation of reporting facilities that generate hazardous waste. A Small Quantity Generator (SQG) is a site which generates more than 100 and less than 1,000 kg of hazardous waste during any one calendar month and accumulates less than 6,000 kg of hazardous waste at any time; or a site which generates less than 100 kg of hazardous waste during any one calendar month and accumulates less than 1,000 kg of hazardous waste at any time. Large Quantity Generators (LQG) generate more that 1,000 kg of hazardous waste per month.

Neither the subject property nor any property within ¼ mile of the subject property is listed as a RCRA SQG or RCRA LQG site.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

RCRA CORRACTS

The RCRA Corrective Actions (CORRACTS) database is the EPA's list of hazardous waste treatment, storage or disposal facilities subject to corrective action under RCRA.

Neither the subject property nor any property within ½ mile of the subject property is listed as a RCRA CORRACTS site.

Emergency Response Notification System

The Emergency Response Notification System (ERNS) is a national database used collect information on reported releases of oil or hazardous substances.

No ERNS incidents were listed for the subject property.

Superfund Consent Decrees

The Superfund Consent Decrees (CONSENT) list identifies major legal settlements that establish responsibility and standards for cleanup at NPL sites.

Neither the subject property nor any property within one mile of the subject property is identified on CONSENT list.

Records of Decision

Record of Decision (ROD) documents mandate a permanent remedy at an NPL site containing technical and health information to aid in the cleanup.

Neither the subject property nor any property within one mile of the subject property is identified in the ROD database.

Master Mines Index

The Master Mines Index (MINES) file contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Neither the subject property nor any property within ¼ mile of the subject property is listed in the MINES database.

6.1.2 New York State Databases

The table below summarizes the State databases that were searched

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
NYSDEC	Inactive Hazardous Waste Disposal Sites in New York State	SHWS	1.0 mile
NYSDEC	Solid Waste Facility Register	SWF	0.5 mile
NYSDEC	Leaking Underground Storage Tank Sites	LTANKS	0.5 mile
NYSDEC	Petroleum Bulk Storage (PBS) - Underground Tanks	UST	0.25 mile
NYSDEC	Chemical Bulk Storage	CBS	0.25 mile
NYSDEC	Major Oil Storage Facilities	MOSF	0.5 mile
NYSDEC	Voluntary Cleanup Agreements	VCP	0.5 mile
NYSDEC	Registered Recycling Facilities	SWRCY	0.5 mile
NYSDEC	Registered Waste Tire Storage Facilities	SWTIRE	0.5 mile
NYSDEC	Hazardous Substance Waste Disposal Site Study	HSWDS	0.5 mile
NYSDEC	Petroleum Bulk Storage (PBS) - Aboveground Tanks	AST	Target Site
NYSDEC	New York State Spills	NYSPILLS	0.125 mile

New York State Inactive Hazardous Waste Disposal Sites

The New York State Department of Environmental Conservation (NYSDEC) maintains a state priority list of Inactive Hazardous Waste Disposal Sites (SHWS) considered to actually or potentially contaminated and presenting a possible threat to human health and the environment.

Neither the subject property nor any property within 1 mile of the subject property is listed as a SHWS site.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Solid Waste Facility Register

The NYSDEC Solid Waste Facility Register (SWF) records contain an inventory of solid waste disposal facilities or landfills in New York State.

Neither the subject property nor any property within ½ mile of the subject property is listed on the SWF Register.

Leaking Underground Storage Tank Sites

The Leaking Underground Storage Tank Sites (LTANKS) database contains a NYSDEC inventory of reported leaking storage tank incidents. The causes of the incidents are tank test failures, tank failures or tank overfills.

The subject property is not listed as a LTANKS site. Six (6) LTANK sites were identified within ½ mile of the subject property. All six (6) sites have been issued no further action letters by the NYSDEC and, therefore, are unlikely to impact the environmental quality of the subject property.

Petroleum Bulk Storage – Underground Tanks

The NYSDEC Petroleum Bulk Storage – Underground Tanks (UST) database lists facilities with a petroleum storage capacity of more than 1,100 gallons and less than 400,000 gallons.

The EDR report identifies the Island Hills Golf Club property as a UST site. Based upon PWGC's evaluation of the site and subject area, the UST listing is for the main golf property maintenance area, located to the south-southwest of the subject site. The EDR lists two USTs at the site which contain gasoline. Sites having a UST do not necessarily pose a hazard unless the tanks are leaking or a spill occurs. Due to the locations of the tanks in a downgradient direction, well away from the subject property, they are unlikely to affect the subject site. The two fuel oil tanks identified within the residential homes are not required to be listed in the NYSDEC UST database since they have total capacity less than 1,100 gallons and are used for home heating oil.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Chemical Bulk Storage

The Chemical Bulk Storage (CBS) database is a NYSDEC list of facilities that store regulated hazardous substances in underground tanks of any size.

Neither the subject property nor any property within ¼ mile of the subject property is listed in the CBS database.

Major Oil Storage Facilities

The NYSDEC Major Oil Storage Facilities (MOSF) database lists facilities or vessels with a petroleum storage capacity of more than 400,000 gallons.

Neither the subject property nor any property within ½ mile of the subject property is listed as a MOSF site.

Voluntary Cleanup Agreements

The NYSDEC Voluntary Cleanup Program (VCP) database identifies brownfield sites undergoing private sector cleanup as part of redevelopment.

Neither the subject property nor any property within ½ mile of the subject property is listed as a VCP site.

Registered Recycling Facilities

The Registered Recycling Facilities List (SWRCY) is a NYSDEC lit of recycling facilities.

Neither the subject property nor any property within ½ mile of the subject property is listed as a SWRCY site.

Hazardous Substance Waste Disposal Site Study

The Hazardous Substance Waste Disposal Site Study (HSWDS) list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the SHWS registry and non-registry sites that EPA Preliminary Assessment reports or Site Investigation reports were prepared.

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

Neither the subject property nor any property within ½ mile of the subject property is listed as a HSWDS site.

Petroleum Bulk Storage – Aboveground Tanks

The NYSDEC Petroleum Bulk Storage – Aboveground Tanks (AST) database lists facilities with registered above ground storage tanks.

The EDR report identifies the Island Hills Golf Club property as an AST site. Two of the three tanks that were identified on the EDR have been removed while the other tank has a permit that has expired. Based upon PWGC's evaluation of the subject and surrounding areas, the tanks identified in the database are related to the Golf Club maintenance building at the south end of the golf course and is not related to the subject site. The tanks were listed diesel tanks (2) and a chemical storage tank. PWGC believes the tanks were located at the maintenance building to the south-southwest of the subject site. As with the USTs, due to the locations of the tanks in a downgradient direction, well away from the subject property, they are unlikely to affect the subject site.

New York State Spills

The New York State Spills Information Database (NYSPILLS) contains data collected on spills reported to NYSDEC since April 1, 1986.

Neither the subject property nor any property within 1/8 mile of the subject property is listed as a Spills site.

6.1.3 EDR and Brownfield Databases

The table below summarizes the EDR and Brownfield databases that were searched.

Agency	Listing Name or Database Searched	Abbreviation	Search Distance
EDR	Dry Cleaner Sites	HDC	0.25 mile
EDR	Manufactured Gas Plants	CGS	1.0 mile
USEPA	Brownfields	BF	0.5 mile

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com

The EDR report indicates that neither the subject property nor any property within the appropriate ASTM search distances appears on the three EDR or Brownfield databases searched.

6.2 Freedom of Information Act (FOIA) Requests

FOIA requests were sent to the United States Environmental Protection Agency, Region II (USEPA), the New York State Department of Environmental Conservation, Region I (NYSDEC), the Suffolk County Department of Health Services (SCDHS), and the Town of Islip. At the time of the completion of the report, PWGC received replies from the SCDHS and the USEPA indicating that no files were present. If additional files are present and provide pertinent information, PWGC will prepare an addendum to the report documenting the findings. Copies of the FOIA request and replies are included in Appendix F

P.W. GROSSER CONSULTING • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • info@pwgrosser.com • www.pwgrosser.com