PLUMLEY
ENGINEERING
Civil and Environmental Engineering

PROGRESS REPORT
Quanta Resources, Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013 / Index No. D7-00001-07-07
Plumley Project No. 2015127

January 2019

INTRODUCTION

This report summarizes the remedial activities at the Quanta Resources – Syracuse Site since the last progress report (January 2017). Free product recovery efforts have been ongoing since March 2017, with the installation of absorbent socks in four monitoring wells with a history of free product accumulation. The Periodic Review Report (PRR) was submitted to the New York State Department of Environmental Conservation (DEC) in July 2018. The third post-remedial groundwater sampling event of selected wells was completed in December 2018.

FREE PRODUCT RECOVERY

Absorbents have been maintained in the four wells with a history of free product accumulation (MW-1S, MW-2, MW-7 and MW-10) since March 2017. Quarterly inspections have been completed to assess the amount of oil absorbed in each well. During this period, a range of approximately 0.3 to 4.75 feet of free product accumulation was observed in well MW-1S and an estimated 0.98 gallons was recovered with the absorbents and bailers. Approximately <0.1 to 0.3 feet of free product accumulation was observed in well MW-7 and an estimated 0.21 gallons was recovered with the absorbents. No free product was observed or recovered from wells MW-2 and MW-10. Refer to the attached *Table 1A – Monitoring Well Groundwater Elevation*

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Summary, Table 1B – Free Product Thickness and *Table 1C – Monthly Free Product Recovery* for additional information.

GROUNDWATER SAMPLING

The depth to groundwater and free product thickness were measured in all of the wells and a groundwater sampling event was completed on December 5, 2018. Well MW-1S had a measurable accumulation of free product and was not sampled. Plumley personnel purged the wells and collected samples from wells MW-1D, MW-2, MW-5, MW-6, MW-7, MW-9, MW-10 and MW-12. Only wells MW-2 and MW-10 had odors after baling. No sheens or free product were observed in any of the wells sampled. Refer to the attached *Figure 1 – Site Plan* for sampling locations and *Groundwater Sampling Logs* for field observations.

Samples were submitted to SGS Accutest (SGS) for laboratory analysis of volatile organic compounds (VOCs) per United States Environmental Protection Agency (EPA) Method 8260 and polychlorinated biphenyls (PCBs) per EPA Method 8082. At the request of the New York State Department of Environmental Conservation (DEC), key monitoring well samples were also submitted to SGS for "emerging contaminants," including 1,4-Dioxane per EPA Method 8270SIM and Per- and Poly-Fluorinated Alkyl Substances (PFAS) Target Analyte List (TAL) per EPA Method 537M by ID. The results are discussed below.

Groundwater Elevations

The groundwater contours generated from elevation data collected on December 5, 2018 are shown on the attached *Figure 1 – Site Plan*. The elevation data indicate predominant groundwater flow directions generally to the west and southwest, similar to the last sampling

event in October 2017. Refer to the attached *Table 1A – Monitoring Well Groundwater Elevation Summary* for additional information.

Analytical Results

Analytical results showed total VOC concentrations ranging from 11 to 36 micrograms per liter (µg/L) in the wells tested. VOC concentrations were generally consistent with the results of the October 2017, December 2016 and September 2015 sampling events.

PCBs were detected in groundwater samples from well MW-2 and MW-10. Aroclors 1248, 1254 and 1260 were present at a total concentration of 3.05 µg/L in MW-2. Aroclor 1254 was present at a concentration of 0.28 µg/L in MW-10. These total concentrations were above the State groundwater standard[1] of 0.09 µg/L. Well MW-2 had slight sheen during purging of the well and only an odor when sampled. MW-10 had an oil film present during purging of the well and an odor when sampled. These findings continue to be similar to the prior post-remedial sampling events.

PFAS were detected in groundwater samples from key monitoring wells MW-9 and MW-12. The PFAS reported in these two wells were at concentrations ranging from 1.31 to 23.6 nanograms per liter (ng/L). No PFAS were detected above the laboratory's method of detection limit in the sample collected from MW-10. No State standards or guidelines have been established for PFAS. The EPA has issued a health advisory of 70 ng/L, based on lifetime exposure to PFAS.

1,4-Dioxane was also tested in groundwater samples from key monitoring wells MW-9, MW-10 and MW-12. 1,4-Dioxane concentrations were reported at 2.34, 0.225 and 0.239 µg/L,

[1]DEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, dated June 1998 and Addenda.

respectively. There are no State or Federal standards or guidelines for 1,4-Dioxane in groundwater. The EPA has set a screening level[2] of 0.46 µg/L in tap water.

Refer to the attached *Figure 2 – VOC & PCB Groundwater Data Plan, Table 2 – Summary of Groundwater Analytical Results – VOCs and PCBs*, *Table 3 – Summary of Historical Groundwater Analytical Results – VOCs [Detections Only]*, *Table 4 – Summary of Historical Groundwater Analytical Results – Total PCBs, Table 5 – PFAS and 1,4-Dioxane in Groundwater, Well Inspection Logs, Groundwater Sampling Field Logs* and *Laboratory Report* for additional information.

CONCLUSIONS

We offer the following conclusions based on the groundwater sampling results:

- The VOC impacts to groundwater have not changed significantly from the 2017, 2016 and 2015 post-remedial sampling events.

- PCBs were present in groundwater above standards in only two onsite wells (MW-2 and MW-10) with a history of free product accumulation, similar to prior results.

- No significant migration of VOCS or PCBs to offsite wells is indicated.

- Free product accumulation was present in well MW-1S is consistent with past findings. The increase in accumulation observed in December 2018 was likely a result of wet weather in the fall of 2018. An estimated 0.98 gallons of free product were recovered

[2]Technical Fact Sheet, 1,4-Dioxane; USEPA; November 2017.

from well MW-1S during the absorbent monitoring period, or approximately an average of 0.2 gallons per month. Absorbents in well MW-7 recovered 0.21 gallons during the period.

- Well RW-3 had trace amounts of free product in February, March and December of 2018. Measurements indicated a thickness of <0.1 feet. Well RW-3 has a history of sporadic free product impacts.

- Although oil migration rates are low, continued accumulation of oil in some of the wells can be expected. Such findings are not necessarily indicative of a thick free product layer, but rather are more likely associated with the viscous oil gradually accumulating in the permeable well boring from an elevation above the water table.

- Three key wells were sampled for PFAS. Two of the three wells had detections of PFAS at concentrations ranging from 1.31 to 23.6 ng/L, which are well below the EPA health advisory concentration of 70 ng/L.

- All three key monitoring wells tested for 1,4-Dioxane had reportable concentrations of the compound. The reported concentrations were 2.34, 0.225 and 0.239 µg/L for wells MW-9, MW-10 and MW-12, respectively.

These results will be incorporated into the next PRR, which is due in July 2019.

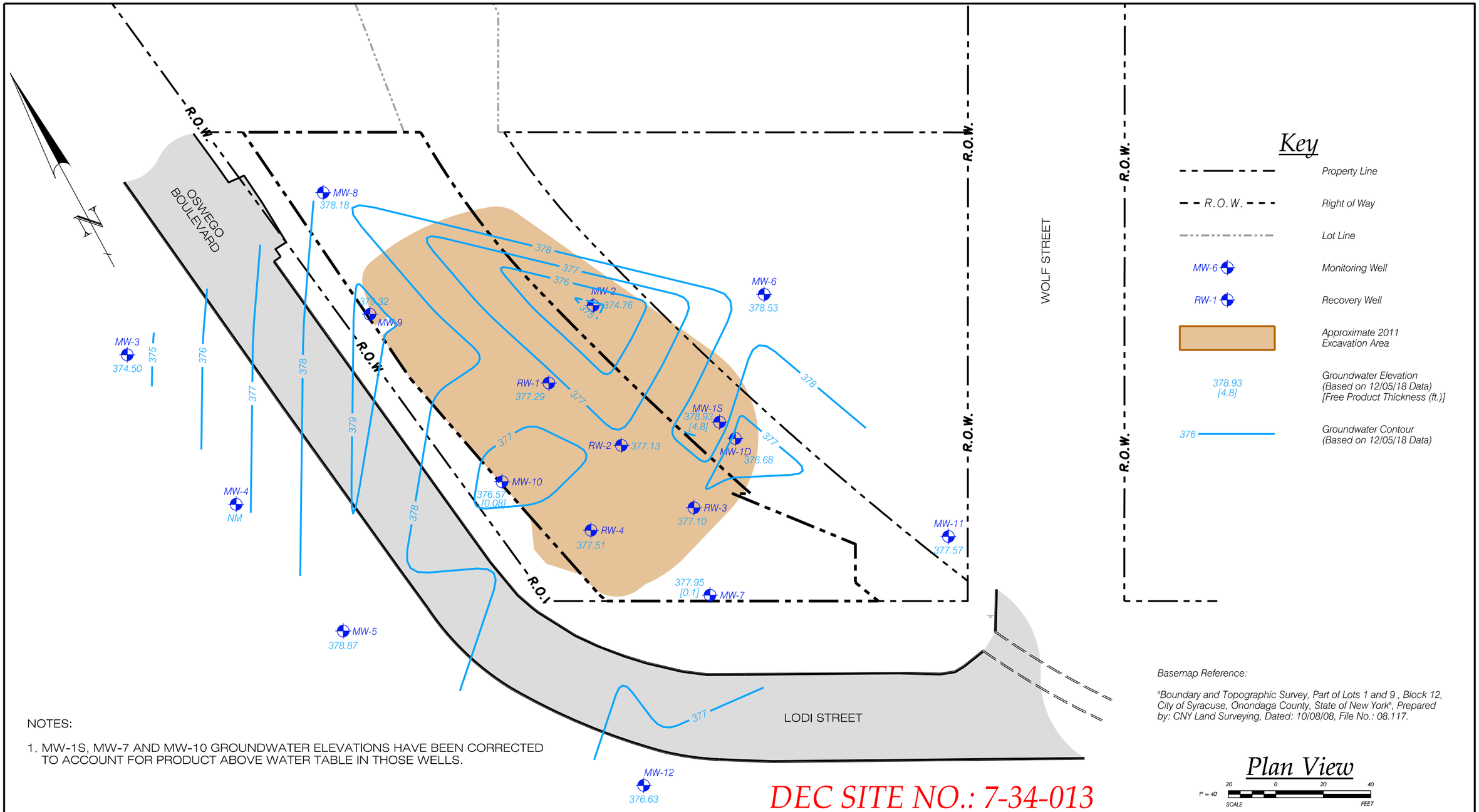
RECOMMENDATIONS

We recommend maintaining absorbent socks in the four wells with a history of free product accumulation (MW-1S, MW-2, MW-7 and MW-10) and well RW-3. Monitoring of these wells

for free product thickness and replacement of spent absorbents should be conducted quarterly. Other wells should be checked annually for free product.

We recommend continuing the groundwater sampling program but extending the time between sampling events to two years, given the consistency of the post-remedial results. The next sampling event would be in the summer of 2020 and would include wells MW-1S, MW-2, MW-5, MW-6, MW-7, MW-9, MW-10 and MW-12. Groundwater samples collected from these wells will be submitted for laboratory analysis of VOCs per EPA Method 8260 Site Specific Target Compound List (TCL) and PCBs per EPA Method 8082. No additional sampling and analysis of emerging contaminants appears to be warranted.

FIGURES



NOTES:

1. MW-1S, MW-7 AND MW-10 GROUNDWATER ELEVATIONS HAVE BEEN CORRECTED TO ACCOUNT FOR PRODUCT ABOVE WATER TABLE IN THOSE WELLS.

Basemap Reference:

"Boundary and Topographic Survey, Part of Lots 1 and 9 , Block 12, City of Syracuse, Onondaga County, State of New York", Prepared by: CNY Land Surveying, Dated: 10/08/08, File No.: 08.117.

Plan View

1" = 40' SCALE 20 0 20 40 FEET

DEC SITE NO.: 7-34-013

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REVISIONS: DATE: BY:

PROJECT: QUANTA RESOURCES

DWG. TITLE: SITE PLAN

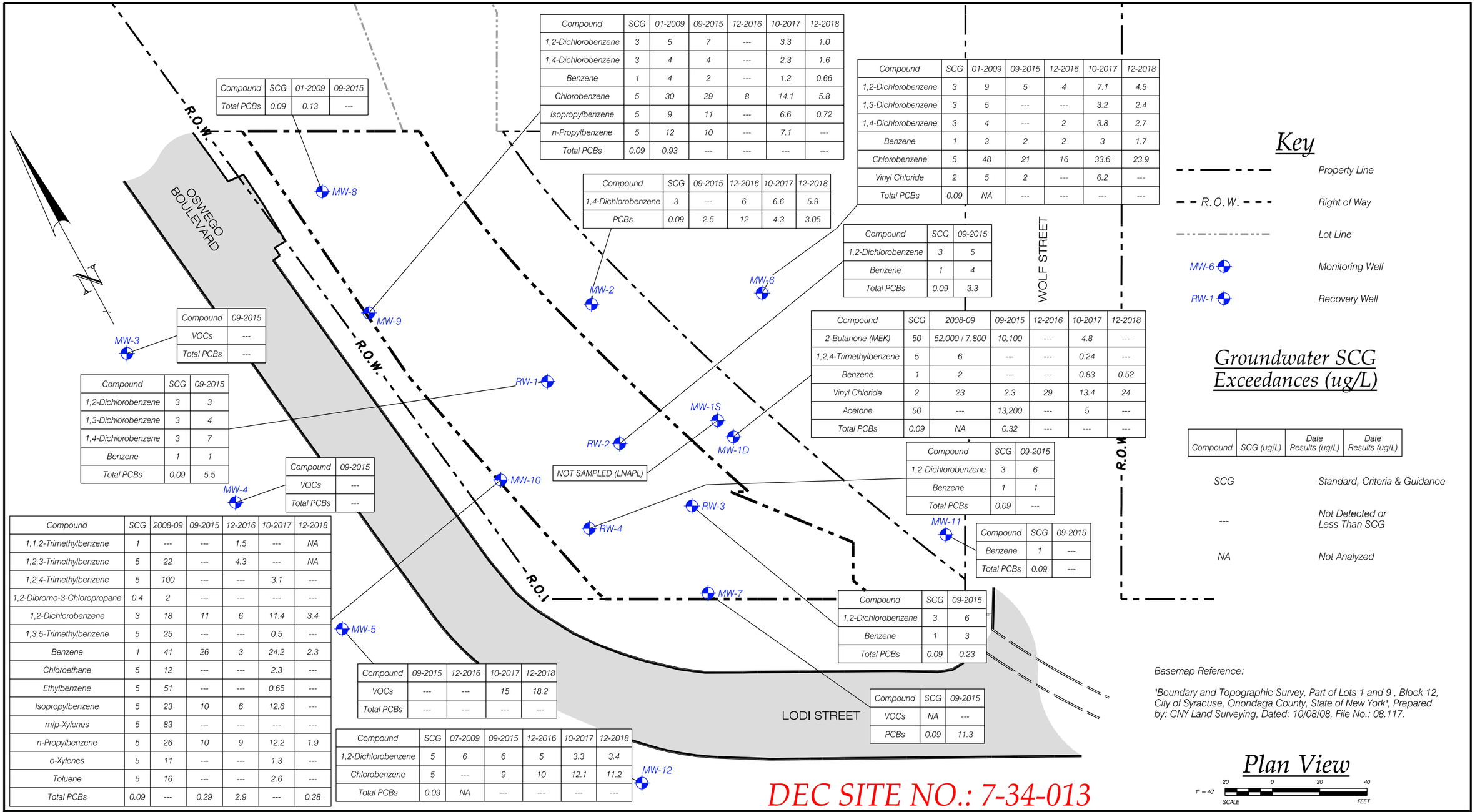
CLIENT: QUANTA RESOURCES / SYRACUSE PRP GROUP

LOCATION: CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.:	2015127
FILE NAME.:	GWC_12-05-18
SCALE:	AS NOTED
DATE:	JAN. 2019
ENG'D BY:	DTH
DRAWN BY:	MGT
CHECKED BY:	DRV

SHEET NO.: FIGURE 1



Compound	SCG	01-2009	09-2015
Total PCBs	0.09	0.13	---

Compound	SCG	01-2009	09-2015	12-2016	10-2017	12-2018
1,2-Dichlorobenzene	3	5	7	---	3.3	1.0
1,4-Dichlorobenzene	3	4	4	---	2.3	1.6
Benzene	1	4	2	---	1.2	0.66
Chlorobenzene	5	30	29	8	14.1	5.8
Isopropylbenzene	5	9	11	---	6.6	0.72
n-Propylbenzene	5	12	10	---	7.1	---
Total PCBs	0.09	0.93	---	---	---	---

Compound	SCG	09-2015	12-2016	10-2017	12-2018
1,4-Dichlorobenzene	3	---	6	6.6	5.9
PCBs	0.09	2.5	12	4.3	3.05

Compound	SCG	01-2009	09-2015	12-2016	10-2017	12-2018
1,2-Dichlorobenzene	3	9	5	4	7.1	4.5
1,3-Dichlorobenzene	3	5	---	---	3.2	2.4
1,4-Dichlorobenzene	3	4	---	2	3.8	2.7
Benzene	1	3	2	2	3	1.7
Chlorobenzene	5	48	21	16	33.6	23.9
Vinyl Chloride	2	5	2	---	6.2	---
Total PCBs	0.09	NA	---	---	---	---

Compound	SCG	09-2015
1,2-Dichlorobenzene	3	5
Benzene	1	4
Total PCBs	0.09	3.3

Compound	09-2015
VOCs	---
Total PCBs	---

Compound	SCG	09-2015
1,2-Dichlorobenzene	3	3
1,3-Dichlorobenzene	3	4
1,4-Dichlorobenzene	3	7
Benzene	1	1
Total PCBs	0.09	5.5

Compound	09-2015
VOCs	---
Total PCBs	---

Compound	SCG	2008-09	09-2015	12-2016	10-2017	12-2018
2-Butanone (MEK)	50	52,000 / 7,800	10,100	---	4.8	---
1,2,4-Trimethylbenzene	5	6	---	---	0.24	---
Benzene	1	2	---	---	0.83	0.52
Vinyl Chloride	2	23	2.3	29	13.4	24
Acetone	50	---	13,200	---	5	---
Total PCBs	0.09	NA	0.32	---	---	---

Compound	SCG	09-2015
1,2-Dichlorobenzene	3	6
Benzene	1	1
Total PCBs	0.09	---

Compound	SCG	09-2015
Benzene	1	---
Total PCBs	0.09	---

Compound	SCG	09-2015
1,2-Dichlorobenzene	3	6
Benzene	1	3
Total PCBs	0.09	0.23

Compound	SCG	09-2015
VOCs	NA	---
PCBs	0.09	11.3

Compound	SCG	2008-09	09-2015	12-2016	10-2017	12-2018
1,1,2-Trimethylbenzene	1	---	---	1.5	---	NA
1,2,3-Trimethylbenzene	5	22	---	4.3	---	NA
1,2,4-Trimethylbenzene	5	100	---	---	3.1	---
1,2-Dibromo-3-Chloropropane	0.4	2	---	---	---	---
1,2-Dichlorobenzene	3	18	11	6	11.4	3.4
1,3,5-Trimethylbenzene	5	25	---	---	0.5	---
Benzene	1	41	26	3	24.2	2.3
Chloroethane	5	12	---	---	2.3	---
Ethylbenzene	5	51	---	---	0.65	---
Isopropylbenzene	5	23	10	6	12.6	---
m/p-Xylenes	5	83	---	---	---	---
n-Propylbenzene	5	26	10	9	12.2	1.9
o-Xylenes	5	11	---	---	1.3	---
Toluene	5	16	---	---	2.6	---
Total PCBs	0.09	---	0.29	2.9	---	0.28

Compound	09-2015	12-2016	10-2017	12-2018
VOCs	---	---	15	18.2
Total PCBs	---	---	---	---

Compound	SCG	07-2009	09-2015	12-2016	10-2017	12-2018
1,2-Dichlorobenzene	5	6	6	5	3.3	3.4
Chlorobenzene	5	---	9	10	12.1	11.2
Total PCBs	0.09	NA	---	---	---	---

Key

- Property Line
- R.O.W. — Right of Way
- Lot Line
- MW-6 — Monitoring Well
- RW-1 — Recovery Well

Groundwater SCG Exceedances (ug/L)

Compound	SCG (ug/L)	Date Results (ug/L)	Date Results (ug/L)

SCG — Standard, Criteria & Guidance

--- — Not Detected or Less Than SCG

NA — Not Analyzed

Basemap Reference:

"Boundary and Topographic Survey, Part of Lots 1 and 9 , Block 12, City of Syracuse, Onondaga County, State of New York", Prepared by: CNY Land Surveying, Dated: 10/08/08, File No.: 08.117.

Plan View

1" = 40' SCALE — 20 0 20 40 FEET

DEC SITE NO.: 7-34-013

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REVISIONS: DATE: BY:

PROJECT: QUANTA RESOURCES

DWG. TITLE: VOC & PCB GROUNDWATER DATA PLAN

CLIENT: QUANTA RESOURCES / SYRACUSE PRP GROUP

LOCATION: CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

PROJECT No.: 2015127
FILE NAME.: GWD_12-18
SCALE: AS NOTED
DATE: JAN. 2019
ENG'D BY: DTH
DRAWN BY: MGT
CHECKED BY: DRV

SHEET NO.: FIGURE 2

TABLES

QUANTA RESOURCES SITE
2802-2810 Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013

TABLE 1A - MONITORING WELL GROUNDWATER ELEVATION SUMMARY

WELL ID	MW-lD	MW-lS	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	RW-1	RW-2	RW-3	RW-4
RISER ELEVATION	407.02	407.19	406.92	399.9	399.9	399.45	408.5	404.94	406.06	406.9	406.86	406.74	403.44				
GROUND ELEVATION	405.04	404.64	405.45	398.42	398.09	398.11	406.01	402.52	403.61	404.38	404	404.22	401.01				
RISER ELEVATION post excavation (1/1/2011)	407.23	404.56	405.36	399.9	399.9	401.12	408.5	402.08	404.59	406.91	403.61	406.74	403.43	404.61	404.08	403.5	402.92
GROUND ELEVATION post excavation (1/1/2011)	404.66	404.73	405.56	398.42	398.09	396.96	406.01	402.52	402.78	404.42	403.9	404.22	401.54	404.84	404.38	404.04	403.41
ELEVATIONS OF (Top)	365.04	370.64	377.45	373.42	366.09	376.11	387.51	389.02	386.11	386.88	384.5	384.72	381.51	381.88	381.54	384.04	383.41
SCREEN INTERVAL (Bottom)	360.04	365.64	367.45	358.42	356.09	361.61	367.51	373.02	372.11	370.88	369.5	369.72	366.51	361.88	361.54	364.04	363.41
BOTTOM OF BORING ELEVATION	357.04	365.64	367.45	356.92	355.59	359.11	367.01	372.52	371.61	370.38	369.00	369.22	366.01	361.88	361.54	364.04	363.41
DATE INSTALLED	11/18/91	11/25/91	11/21/91	11/26/91	11/25/91	11/27/91	12/18/08	12/11/08	12/09/08	12/10/08	12/16/08	06/25/09	07/09/09	12/16/08	06/25/09	01/02/10	07/12/10
DIAMETER (Inches)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CASING MATERIAL	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC
SCREEN MATERIAL	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC
SLOT SIZE (Inches)	0.010	0.010	0.010	0.010	0.010	0.010	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
DATE*	GROUNDWATER ELEVATION																
02/06/1992	374.45	376.81	377.8	374.03	374.00	378.46	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/15/1992	375.37	377.77	378.62	374.96	374.89	378.56	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/10/2008**	374.37	378.52 (4.5')	376.58 (2.3')	373.51	373.29	377.33	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/12/2008*	374.5	NM	NM	373.43	373.33	377.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/16/2008	NM	NM	NM	NM	NM	NM	NI	375.36	377.56	377.59	NI	NI	NI	NI	NI	NI	NI
12/18/2008	NM	NM	NM	NM	NM	NM	NI	375.61 (.04')	378.05	377.55	377 0	NI	NI	NI	NI	NI	NI
12/23/2008	NM	NM	NM	NM	NM	NM	377.05	375.60 (.16')	377.73	377.53	376.8 0	NI	NI	NI	NI	NI	NI
01/05/2009*	375.58	NM	NM	374.6	374.55	376.53	377.41	376.41 (.26')	378.3	378.26	377.5 0	NI	NI	NI	NI	NI	NI
01/23/2009**	374.41	375.63 (2.4')	376.78 (2.07')	374.14	374.01	375.65	375.77	375.22 (.44')	377.5	376.99	376.5 0	NI	NI	NI	NI	NI	NI
06/25/2009**	374.37	375.34 (2.35')	375.94 (1.86')	373.79	373.69	375.7	375.41	375.06 (.38')	377.64	376.67	376.32 (.25')	NI	NI	NI	NI	NI	NI
06/29/2009	374.36	375.17 (2.23')	376.10 (1.51')	373.72	373.66	375.97	375.22	374.86 (.64')	377.37	376.61	376.15 (.29')	NI	NI	NI	NI	NI	NI
07/14/2009**	374.16	374.87 (2.04')	375.81	373.61	373.54	375.44	374.99	371.59	376.97	376.25	375.6 (.85')	NI	373.94	NI	NI	NI	NI
09/22/2015**	378.83	379.91 (3.0')	375.56	372.7	373.9	380.12	380.3	373.68	378.39	381.51	375.81	377.34	377.83	376.11	381.38	374.9	379.12
12/08/2016**	375.48	377.36 (3.0')	378.08 (0.08')	374.51	NM	377.86	377.07	377.00 (.38')	378.21	378.08	375.94 (.08')	376.22	375.67	378.03	377.81	377.14	377.65
12/16/2016*	375.25	377.17 (3.0')	377.68	NM	375.2	377.87	376.54	376.79	NM	377.59	375.03	NM	375.20	NM	NM	NM	NM
03/01/2017	NM	378.06 (4.0')	378.96 (0.02')	NM	NM	NM	NM	378.11 (.27')	NM	NM	378.99 (.09')	NM	NM	NM	NM	NM	NM
04/25/2017	NM	377.97 (2.5')	378.26	NM	NM	NM	NM	377.48 (1')	NM	NM	378.41	NM	NM	NM	NM	NM	NM
05/26/2017	NM	376.64 (1.3')	377.71	NM	NM	NM	NM	377.21 (.15')	NM	NM	377.82	NM	NM	NM	NM	NM	NM
06/29/2017	375.47	375.95 (0.7')	377.95	374.2	NM	377.15	376.51	376.49	378.02	377.8	375.81	375.93	375.52	377.92	377.04	376.91	377.21
07/29/2017	NM	376.05 (0.3')	378.45	NM	NM	NM	NM	377.07	NM	NM	376.39	NM	NM	378.44	377.96	377.35	377.7
09/08/2017	NM	378.52 (0.8')	377.37	NM	NM	NM	NM	377.92 (<0.1')	NM	NM	378.87	NM	NM	378.21	379.4	377.12	377.6
10/05/2017	374.19	376.64 (1.5')	377.71	372.15	NM	377.35	374.68	377.21 0.2	376.19	375.92	377.82	374.69	374.50	376.6	377.42	375.43 0.2	375.59
02/28/2018	NM	375.95 (1.8')	377.95	NM	NM	401.12	NM	376.49 0.3	NM	NM	375.81	NM	NM	376.61	377.47	375.52 0	375.77
05/30/2018	375.28	376.05 (0.8')	378.45	373.99	NM	376.91	376.38	377.07 0.1	377.88	377.6	376.39	375.75	375.39	377.72	376.75	376.78 0	377.05
09/28/2018	NM	378.52 (0.3')	377.37	NM	NM	401.12	NM	377.92 0	377.4	NM	378.87	NM	NM	378.53	378.01	377.49 0	377.75
12/05/2018	376.68	378.93 (4.8')	374.76	374.5	NM	378.87	378.53	377.95 0.1	378.18	379.32	376.57	377.57	376.63	377.29	377.13	377.10 0	377.51

Notes:

(1.1') indicates measured free product thickness in feet.

*Groundwater sampling date.

All wells were re-surveyed on 01/05/09 by Plumley Engineering and those elevations were used for all groundwater data from 03/10/08 to 2012.

Wells re-surveyed after excavation, those elevations were used for all groundwater data from 2012 to present.

**Wells contained free product layers on the water column. A Corrected Depth To Water (CDTW) calculation was used to estimate the groundwater level without the free product using this equation: CDTW = Static DTW - (PxG); where P = Measured Product thickness (which is notated in parenthesis) and G = Specific Gravity. Specific Gravity is currently estimated to be 0.85 based on field observations and published values.

NI Not installed

NM Not measured

All elevations reported in feet above mean sea level.

QUANTA RESOURCES SITE
2802-2810 Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013

TABLE 1B - FREE PRODUCT THICKNESS (FEET)

Date	MW-1S	MW-2	MW-7	MW-10	RW-1	RW-2	RW-3	RW-4	MW-1D	MW-3	MW-4	MW-5	MW-6	MW-8	MW-9	MW-11	MW-12
07/14/09	2.04	1.80	0.90	0.85	NI	NI	NI	NI	---	---	---	---	---	---	---	---	---
2011	Completed Remedial Excavation																
09/20/12	3.23	1.07	4.03	2.09	---	0.05	0.76	---	---	---	---	---	---	---	---	---	---
09/20/12	System Startup																
09/27/12	3.20	1.51	3.21	1.68	---	0.14	0.19	---	---	---	---	---	---	---	---	---	---
10/04/12	4.26	1.39	4.85	2.05	---	0.09	0.27	---	---	---	---	---	---	---	---	---	---
10/12/12	4.25	2.21	4.49	1.69	---	0.66	0.95	---	---	---	---	---	---	---	---	---	---
11/15/12	NA	0.77	NA	1.5	---	NA	NA	---	---	---	---	---	---	---	---	---	NM
12/28/12	6.21	1.01	2.92	1.32	---	0.31	NA	---	---	---	---	---	---	---	---	---	---
01/30/13	6.4	0.29	0.33	0.87	---	0.32	0.13	---	---	---	---	---	---	---	---	---	---
02/22/13	4.76	0.13	2.01	1.37	---	0.18	0.19	---	---	---	---	---	---	---	---	---	---
03/28/13	3.41	0.13	2.31	1.37	---	0.68	0.3	---	---	---	---	---	---	---	---	---	---
04/30/13	1.14	0.06	1.40	0.96	---	---	---	---	---	---	---	---	---	---	---	---	---
05/30/13	1.62	0.77	1.36	0.95	---	NA	0.21	---	---	---	---	---	---	---	---	---	---
06/21/13	2.29	0.13	0.82	0.91	---	0.55	0.43	---	---	---	---	---	---	---	---	---	---
07/17/13	1.70	0.09	1.56	0.53	---	<0.01	0.21	---	---	---	---	---	---	---	---	---	---
08/15/13	0.50	0.20	0.11	0.30	---	0.02	0.02	0.02	---	---	---	---	---	---	---	---	---
09/25/13	3.00	0.05	0.50	0.75	---	0.01	0.01	---	---	---	---	---	---	---	---	---	---
10/30/13	3.00	0.01	0.50	0.75	---	0.05	NA	---	---	---	---	---	---	---	---	---	---
11/21/13	3.00	0.08	1.00	0.33	---	---	0.01	---	---	---	---	---	---	---	---	---	---
12/31/13	0.60	0.10	0.10	0.20	---	---	0.01	0.01	---	---	---	---	---	---	---	---	---
01/31/14	3.00	NM	NM	NM	---	NM	NM	0.01	---	---	---	---	---	---	---	---	---
01/31/14	Commence Absorbent Oil Recovery Program (Free Product Thickness Not Measurable)																
02/02/14	0.00	0.00	0.00	0.00	---	0.00	---	0.00	---	---	---	---	---	---	---	---	---
02/03/14	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
02/04/14	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
02/05/14	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
09/22/15	Absorbents Removed																
09/22/15	3.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12/08/16	2.70	0.08	0.38	0.08	---	---	---	---	---	---	---	---	---	---	---	---	---
02/16/16	3.50	0.25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
04/02/16	3.75	0.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
07/12/16	4.33	0.25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10/14/16	4.75	0.50	0.10	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---
12/08/16	3.66	0.10	0.40	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---
12/14/16	2.70	0.08	0.38	0.08	---	---	---	---	---	---	---	---	---	---	---	---	---
03/01/17	Absorbents Installed in Wells MW1S, MW-2, MW-7 and MW-10																
03/01/17	4.00	0.02	0.27	0.09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/25/17	2.50	<0.1	1.00	<0.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
05/26/17	1.30	<0.1	0.15	<0.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/29/17	0.70	<0.1	0.20	<0.1	---	---	---	---	---	---	NM	---	---	---	---	---	---
07/29/17	0.30	<0.1	<0.1	<0.1	---	---	---	---	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/08/17	0.80	<0.1	0.10	<0.1	---	---	---	---	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/05/17	1.50	<0.1	0.20	<0.1	---	---	0.20	NM	---	---	---	---	---	---	---	---	---
02/28/18	1.75	<0.1	0.30	<0.2	---	---	<0.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
05/30/19	0.80	<0.1	<0.1	<0.1	---	---	<0.1	NM	---	---	---	---	---	---	---	---	---
09/28/18	0.30	---	---	---	---	---	---	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/05/18	4.75	<0.1	0.10	<0.1	---	---	<0.1	NM	---	---	---	---	---	---	---	---	---

Notes:

--- Not Present NI Well not installed NA Oil-water interface probe malfunction NM Not measured Free product measurements taken with an oil-water interface probe.

QUANTA RESOURCES
2802-2810 Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013

TABLE 1C - MONTHLY FREE PRODUCT RECOVERY* (GALLONS)

Date	MW-1S	MW-2	MW-7	MW-10	RW-1	RW-2	RW-3	RW-4	Total	Cumulative Total
Sep-12	System Startup and Monthly Manual Bailing Begun									
Oct-12	1.32	0.26	0.92	0.40					2.9	2.9
Nov-12	0.69	0.13	0.79	0.18					1.8	4.7
Dec-12	0.99	0.08	0.79	0.20					2.1	6.8
Jan-13	0.90	0.01	0.03	0.11					1.0	7.8
Feb-13	1.82	0.01	0.42	0.13					2.4	10.2
Mar-13	1.77		0.29	0.11					2.2	12.4
Apr-13	1.43		0.17	0.11					1.7	14.1
May-13	0.54	0.03	0.16	0.05					0.8	14.8
Jun-13	0.29		0.16	0.05					0.5	15.4
Jul-13	0.21		0.26						0.5	15.8
Aug-13	0.20	0.01	0.11	0.01					0.3	16.2
Sep-13	0.26	0.01	0.11	0.05					0.4	16.6
Oct-13	0.20	0.01	0.03	0.05					0.3	16.9
Nov-13	0.21	0.01	0.08	0.03					0.3	17.2
Dec-13	0.16	0.01	0.01	0.03					0.2	17.4
Jan-14	0.26								0.3	17.7
Jan-14	Placed Absorbents Into All Wells									
Feb-14	1.01	0.13	0.26	0.26	0.08	0.30	0.12	0.08	2.24	19.9
Mar-14	0.26		0.13	0.13	0.06		0.05		0.63	20.6
Apr-14			0.07	0.10	0.01	0.08	0.02		0.28	20.8
May-14			0.05	0.01	0.01	0.03	0.01	0.01	0.13	21.0
Jun-14	0.02	0.03	0.02	0.07	0.000	0.03	0.08	0.01	0.25	21.2
Jul-14	0.14	0.04	0.02	0.05	0.00	0.03	0.05	0.01	0.34	21.6
Aug-14	0.20	0.08	0.01	0.13	0.00	0.04	0.05	0.00	0.51	22.1
Sep-14	0.27	0.01	0.03	0.13	0.01	0.04	0.03	0.02	0.54	22.6
Oct-14	0.27	0.03	0.00	0.13	0.00	0.09	0.02		0.54	23.1
Nov-14	0.27	0.08	0.00	0.13	0.19	0.19			0.86	24.0
Dec-14	0.27	0.03	0.05	0.09	0.08	0.02			0.54	24.5
Jan-15	0.27	0.00	0.07	0.09	0.11	0.11	0.04	0.00	0.68	25.2
Mar-15	0.27	0.00	0.01	0.01	0.08	0.08	0.11	0.02	0.57	25.8
Apr-15	0.08	0.07	0.03	0.01	0.04	0.11	0.09	0.17	0.60	26.4
May-15	0.07	0.03	0.05	0.04	0.02	0.11	0.04	0.00	0.36	26.7
Jun-15	0.12	0.00	0.03	0.04	0.05	0.08	0.04	0.00	0.35	27.1
Aug-15	0.02	0.03	0.02	0.02	0.02	0.11	0.11	0.00	0.34	27.4
Mar-17	Aborbents reinstalled in wells MW-1S, MW-2, MW-7 and MW-10									
Apr-17	0.27								0.27	27.7
May-17	0.27								0.27	28.0
Jun-17	0.27		0.20						0.47	28.4
Jul-17	0.27								0.27	28.7
Sep-17	0.40								0.40	29.1
Oct-17	0.40		0.20						0.60	29.7
Feb-18	0.27		0.07						0.34	30.1
May-18	0.03		0.01						0.04	30.1
Sep-18	0.03								0.03	30.1
Dec-18	0.65		0.13						0.78	30.9
Total	**17.0**	**1.1**	**5.7**	**3.0**	**0.8**	**1.4**	**0.9**	**0.3**	**30.1**	

Notes:

*Based on estimate in each bailer during bailing program and spent absorbent length during absorbent program.
Blank indicates not present/removed. For wells not listed, free product is not present.

QUANTA RESOURCES SITE
2802-2810 Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - VOCs and PCBs

Date Sampled: December 5, 2018

Client Sample ID:	Unit	State Standard[1]	MW-1-D	MW-2	MW-5	MW-6	MW-9	MW-10	MW-12
Lab Sample ID:			JC79316-6	JC79316-5	JC79316-4	JC79316-3	JC79316-1	JC79316-8	JC79316-7
MS Volatiles (SW846 8260C)									
Acetone	µg/L	-	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Benzene	µg/L	1	0.52	**1.4**	ND (0.43)	**1.7**	0.66	**2.3**	0.46 J
Bromobenzene	µg/L	5	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)
Bromochloromethane	µg/L	5	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
Bromodichloromethane	µg/L	-	ND (0.58)	ND (0.58)	0.82 J	ND (0.58)	ND (0.58)	ND (0.58)	ND (0.58)
Bromoform	µg/L	-	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)
Bromomethane	µg/L	5	ND (1.6)[a]	ND (1.6)[a]	ND (1.6)[a]	ND (1.6)[a]	ND (1.6)[a]	ND (1.6)[a]	ND (1.6)[a]
2-Butanone (MEK)	µg/L	-	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)
n-Butylbenzene	µg/L	5	ND (0.52)	ND (0.52)	ND (0.52)	ND (0.52)	ND (0.52)	0.63 J	ND (0.52)
sec-Butylbenzene	µg/L	5	ND (0.62)	ND (0.62)	ND (0.62)	ND (0.62)	ND (0.62)	1.3 J	1.4 J
tert-Butylbenzene	µg/L	5	ND (0.69)	ND (0.69)	ND (0.69)	ND (0.69)	ND (0.69)	ND (0.69)	0.96 J
Carbon disulfide	µg/L	60	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)
Carbon tetrachloride	µg/L	5	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)
Chlorobenzene	µg/L	5	0.57 J	0.97 J	ND (0.56)	**23.9**	**5.8**	ND (0.56)	**11.2**
Chloroethane	µg/L	5	ND (0.73)	0.89 J	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
Chloroform	µg/L	7	ND (0.50)	ND (0.50)	**17.4**	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Chloromethane	µg/L	5	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)
o-Chlorotoluene	µg/L	5	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)
p-Chlorotoluene	µg/L	5	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
1,2-Dibromo-3-chloropropane	µg/L	0.04	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)
Dibromochloromethane	µg/L	-	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
1,2-Dibromoethane	µg/L	0.0006	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
1,2-Dichlorobenzene	µg/L	3	0.59 J	**3.1**	ND (0.53)	**4.5**	1	2.6	**3.4**
1,3-Dichlorobenzene	µg/L	3	ND (0.54)	2.5	ND (0.54)	2.4	0.62 J	ND (0.54)	ND (0.54)
1,4-Dichlorobenzene	µg/L	3	ND (0.51)	**5.9**	ND (0.51)	2.7	1.6	1.1	1.8
Dichlorodifluoromethane	µg/L	5	ND (1.4)[a]	ND (1.4)	ND (1.4)[a]	ND (1.4)[a]	ND (1.4)[a]	ND (1.4)[a]	ND (1.4)[a]
1,1-Dichloroethane	µg/L	5	2.3	0.73 J	ND (0.57)	0.61 J	ND (0.57)	ND (0.57)	ND (0.57)
1,2-Dichloroethane	µg/L	0.6	ND (0.60)	ND (0.60)[b]	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
1,1-Dichloroethene	µg/L	5	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
1,2-Dichloroethene (total)	µg/L	-	1.5	1	ND (0.51)	ND (0.51)	ND (0.51)	0.93 J	ND (0.51)
1,2-Dichloropropane	µg/L	1	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
1,3-Dichloropropane	µg/L	5	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
2,2-Dichloropropane	µg/L	5	ND (0.52)	ND (0.52)	ND (0.52)	ND (0.52)	ND (0.52)	ND (0.52)	ND (0.52)
1,1-Dichloropropene	µg/L	-	ND (0.82)	ND (0.82)	ND (0.82)	ND (0.82)	ND (0.82)	ND (0.82)	ND (0.82)
cis-1,3-Dichloropropene	µg/L	-	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)
trans-1,3-Dichloropropene	µg/L	-	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
Ethylbenzene	µg/L	5	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
Hexachlorobutadiene	µg/L	0.5	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
Isopropylbenzene	µg/L	5	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	0.72 J	2.3	3.9
p-Isopropyltoluene	µg/L	5	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)
Methyl Tert Butyl Ether	µg/L	10	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
Methylene bromide	µg/L	5	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
Methylene chloride	µg/L	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Naphthalene	µg/L	-	ND (0.98)	ND (0.98)	ND (0.98)	ND (0.98)	ND (0.98)	ND (0.98)	ND (0.98)
n-Propylbenzene	µg/L	5	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	1.9 J	1.3 J
Styrene	µg/L	5	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)
1,1,1,2-Tetrachloroethane	µg/L	5	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
1,1,2,2-Tetrachloroethane	µg/L	5	ND (0.65)[c]	ND (0.65)[d]	ND (0.65)[c]	ND (0.65)[c]	ND (0.65)[c]	ND (0.65)[c]	ND (0.65)[c]
Tetrachloroethene	µg/L	5	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)
Toluene	µg/L	5	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	0.66 J	ND (0.53)	ND (0.53)
1,2,3-Trichlorobenzene	µg/L	5	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,2,4-Trichlorobenzene	µg/L	5	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,1,1-Trichloroethane	µg/L	5	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
1,1,2-Trichloroethane	µg/L	1	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
Trichloroethene	µg/L	5	ND (0.53)	1.2	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
Trichlorofluoromethane	µg/L	5	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)
1,2,3-Trichloropropane	µg/L	0.04	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)
1,2,4-Trimethylbenzene	µg/L	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)

QUANTA RESOURCES SITE
2802-2810 Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013

TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - VOCs and PCBs

Date Sampled: December 5, 2018

Client Sample ID: / **Lab Sample ID:**	**Unit**	**State Standard[1]**	**MW-1-D** JC79316-6	**MW-2** JC79316-5	**MW-5** JC79316-4	**MW-6** JC79316-3	**MW-9** JC79316-1	**MW-10** JC79316-8	**MW-12** JC79316-7
MS Volatiles (SW846 8260C)									
1,3,5-Trimethylbenzene	µg/L	5	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vinyl chloride	µg/L	2	**24**	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)
m,p-Xylene	µg/L	-	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)
o-Xylene	µg/L	5	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
TOTAL VOCs	**µg/L**	---	**29.48**	**17.69**	**18.22**	**35.81**	**11.06**	**13.06**	**24.42**
GC/LC Semi-volatiles (SW846 8082A)									
Aroclor 1016	µg/L	0.09	ND (0.094)	ND (0.094)	ND (0.094)	ND (0.094)	ND (0.094)	ND (0.094)	ND (0.098)
Aroclor 1221	µg/L	0.09	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.21)
Aroclor 1232	µg/L	0.09	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.13)
Aroclor 1242	µg/L	0.09	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
Aroclor 1248	µg/L	0.09	ND (0.061)	**0.75[e]**	ND (0.061)	ND (0.061)	ND (0.061)	ND (0.061)	ND (0.063)
Aroclor 1254	µg/L	0.09	ND (0.20)	**1.1**	ND (0.20)	ND (0.20)	ND (0.20)	**0.28**	ND (0.21)
Aroclor 1260	µg/L	0.09	ND (0.073)	**1.2**	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.076)
TOTAL PCBs	**µg/L**	**0.09**	**ND**	**3.05**	**ND**	**ND**	**ND**	**0.28**	**ND**

Notes:

Legend: Hit | **Exceed**

[1]DEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values,* reissued June 1998.
*State standard is 5 µg/L for each xylene isomer.
[a]Associated CCV outside of control limits low.
[b]Associated CCV outside of control limits high, sample was ND.
[c]This compound in BS is outside in house QC limits bias high.
[d]Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
[e]More than 40 % RPD for detected concentrations between the two GC columns.
µg/L micrograms per liter, equivalent to parts per billion (ppb)
ND Not Detected
--- No promulgated State Standard
J Indicates an estimated value

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TABLE 3 - SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS - VOCs [DETECTIONS ONLY] (µg/L)

Compound	State Standard[1] (µg/L)	Monitoring Well Location																						
		MW-1S		MW-1D						MW-2					MW-3		MW-4		MW-5					
		03/12/08	09/23/15	03/12/08	01/05/09	09/23/15	12/16/16	10/05/17	12/05/18	03/12/08	09/23/15	12/16/16	10/05/17	12/05/18	03/12/08	09/23/15	03/12/08	09/23/15	03/12/08	09/23/15	12/16/16	10/05/17	12/05/18
Acetone	**50**	NS	NS	---	20	**13,200**	---	---	---	NS	---	7	---	---	---	---	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	**1**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethane	**5**	NS	NS	---	2	---	2	2.9	2.3	NS	---	3	---	0.73 J	---	---	---	---	---	---	---	---	---	---
1,2,3-Trimethylbenzene	**5**	NS	NS	---	2	---	---	---	NA	NS	---	---	---	NA	---	---	---	---	---	---	---	---	---	NA
1,2,4-Trichlorobenzene	**5**	NS	NS	---	---	---	---	---	---	NS	---	1	---	---	---	---	---	---	---	---	---	---	---	---
1,2,4-Trimethylbenzene	**5**	NS	NS	---	**6.0**	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dibromo-3-Chloropropane	**0.04**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dichlorobenzene	**3**	NS	NS	---	2.0	---	0.5	0.55 J	0.59 J	NS	---	1.5	**3.2**	**3.1**	---	---	---	---	---	---	---	---	---	---
1,2-Dichloroethene (Total)	**5**	NS	NS	---	2.0	---	1.6	---	1.5	NS	---	1.4	2	1	---	---	---	---	---	---	---	---	---	---
1,2-Dichloropropane	**1**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	**5**	NS	NS	---	2.0	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,3-Dichlorobenzene	**3**	NS	NS	---	---	---	---	---	---	NS	---	2.8	**3.1**	2.5	---	---	---	---	---	---	---	---	---	---
1,4-Dichlorobenzene	**3**	NS	NS	---	---	---	---	---	---	NS	---	**5.9**	**6.6**	**5.9**	---	---	---	---	---	---	---	---	---	---
2-Butanone (MEK)	**50**	NS	NS	**52,000**	**7,800**	**10,100**	---	---	---	NS	---		---	---	---	---	---	---	---	---	---	---	---	---
Benzene	**1**	NS	NS	---	**2.0**	---	0.5	0.83	0.52	NS	0.8	0.9	**3**	**1.4**	---	---	---	---	---	---	---	---	---	---
Bromodichloromethane	**50**	NS	NS	NA	NA	NA	NA	NA	---	NS	NA	NA	NA	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.82 J
Carbon Disulfide	**60**	NS	NS	---	---	---	0.4	---	---	NS	---	---	0.50 J	---	---	---	---	---	---	---	---	---	---	---
Chlorobenzene	**5**	NS	NS	---	2.0	---	0.5	0.49 J	0.57 J	NS	1.9	1.2	**5.5**	0.97 J	---	---	---	---	---	---	---	---	---	---
Chloroethane	**5**	NS	NS	---	---	---	0.7	---	---	NS	---	1.3	2.1	0.89 J	---	---	---	---	---	---	---	---	---	---
Chloroform	**7**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	3.2	**15.4**	**17.4**	
Ethylbenzene	**5**	NS	NS	---	3.0	---	---	---	---	NS	---	0.2	0.27 J	---	---	---	---	---	---	---	---	---	---	---
Isopropylbenzene	**5**	NS	NS	---	1.0	---	---	---	---	NS	---	---	0.60 J	---	---	---	---	---	---	---	---	---	---	---
m/p-Xylenes	**5**	NS	NS	---	5.0	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methyl tert-butyl ether	**10**	NS	NS	---	0.5	---	0.4	0.55 J	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene Chloride	**5**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
n-Butylbenzene	**5**	NS	NS	---	---	---	---	---	---	NS	---	0.9	---	---	---	---	---	---	---	---	---	---	---	---
n-propylbenzene	**5**	NS	NS	---	2.0	---	---	---	---	NS	---	0.2	---	---	---	---	---	---	---	---	---	---	---	---
o-Xylene	**5**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	**5**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec-Butylbenzene	**5**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
tert-Butylbenzene	**5**	NS	NS	---	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	**5**	NS	NS	---	0.9	---	---	---	---	NS	---	0.3	0.30 J	---	---	---	---	---	---	---	---	---	---	---
Tetrachloroethene	**5**	NS	NS	---	---	---	---	---	---	NS	1.8	---	---	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene	**5**	NS	NS	---	---	---	---	---	---	NS	2.5	5.0	1.5	1.2	---	---	---	---	---	---	---	---	---	---
Vinyl Chloride	**2**	NS	NS	---	**23.0**	**2.3**	**28.5**	**13.4**	**24**	NS	---	0.9	---	---	---	---	---	---	---	---	---	---	---	---
Total VOCs	---	NS	NS	**52,000**	**7,875**	**23,302**	**36**	**17**	**28**	**0**	**7**	**33**	**27**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**15**	**18**	

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TABLE 3 - SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS - VOCs [DETECTIONS ONLY] (µg/L)

Compound	State Standard[1] (µg/L)	Monitoring Well Location																				
		MW-6					MW-7		MW-8		MW-9					MW-10					MW-11	
		01/05/09	09/23/15	12/16/16	10/05/17	12/05/18	01/05/09	09/23/15	01/05/09	09/23/15	01/05/09	09/23/15	12/16/16	10/05/17	12/05/18	01/05/09	09/23/15	12/16/16	10/05/17	12/05/18	06/29/09	09/23/15
Acetone	**50**	---	---	22	---	---	NS	---	---	---	---	---	---	---	---	---	---	8	---	---	---	---
1,1,2-Trichloroethane	**1**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2**	---	---	---	---
1,1-Dichloroethane	**5**	2	1	1	1.4	0.61 J	NS	---	---	---	---	---	---	---	---	4	---	0.4	0.64 J	---	2	---
1,2,3-Trimethylbenzene	**5**	---	---	---	---	NA	NS	---	---	---	2	---	---	---	NA	**22**	---	---	---	NA	---	---
1,2,4-Trichlorobenzene	**5**	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	1	---	1	---	---	---	---
1,2,4-Trimethylbenzene	**5**	---	---	---	---	---	NS	---	---	---	---	---	---	3.1	---	**100.0**	---	4.3	3.1	---	2.0	---
1,2-Dibromo-3-Chloropropane	**0.04**	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	**2.0**	---	---	---	---	---	---
1,2-Dichlorobenzene	**3**	**9.0**	**4.8**	**3.7**	**7.1**	**4.5**	NS	1.8	2.0	---	**5.0**	**6.7**	**1.9**	**3.3**	1	**18.0**	**10.7**	**6.3**	**11.4**	2.6	3.0	2.8
1,2-Dichloroethene (Total)	**5**	1.0	1.1	0.5	---	---	NS	---	---	---	---	---	---	---	---	---	---	1.2	0.77	0.93 J	4.0	---
1,2-Dichloropropane	**1**	---	---	---	---	---	NS	---	---	---	1.0	---	---	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	**5**	---	---	---	---	---	NS	---	---	---	---	---	0.4	1.0 J	---	**25.0**	---	0.7	0.50 J	---	---	---
1,3-Dichlorobenzene	**3**	**5.0**	2.7	1.6	**3.2**	2.4	NS	---	---	---	2.0	1.9	0.9	0.99 J	0.62 J	---	---	0.5	0.68 J	---	---	---
1,4-Dichlorobenzene	**3**	**4.0**	2.7	1.8	**3.8**	2.7	NS	1.2	---	---	**4.0**	**4.4**	**2.2**	2.3	1.6	3.0	2.9	1.7	**3.5**	1.1	---	---
2-Butanone (MEK)	**50**	---	---	---	---	---	NS	---	---	---	---	---		---	---	---	---	---	---	---	---	---
Benzene	**1**	**3.0**	**2.1**	**1.8**	**3**	**1.7**	NS	---	---	---	**4.0**	**2.2**	0.4	**1.2**	0.66	**41.0**	**25.6**	**3.1**	**24.2**	**2.3**	0.6	---
Bromodichloromethane	**50**	NA	NA	NA	NA	---	NS	NA	NA	NA	NA	NA	NA	NA	---	NA	NA	NA	NA	---	NA	NA
Carbon Disulfide	**60**	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorobenzene	**5**	**48.0**	**21.0**	**16.4**	**33.6**	**23.9**	NS	---	---	---	**30.0**	**29.1**	**7.8**	**14.1**	**5.8**	3.0	2.0	0.5	2.2	---	4.0	3.1
Chloroethane	**5**	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	**12.0**	4.1	---	2.3	---	---	---
Chloroform	**7**	---	---	---	---	---	NS	---	0.8	---	2.0	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	**5**	---	---	---	---	---	NS	---	---	---	---	---	---	1.8	---	**51.0**	---	0.4	0.65 J	---	---	---
Isopropylbenzene	**5**	5.0	---	0.3	0.27 J	---	NS	---	3.0	---	**9.0**	**11.1**	**1.9**	**6.6**	0.72 J	**23.0**	**9.7**	**6.1**	**12.6**	2.3	---	---
m/p-Xylenes	**5**	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	**83.0**	2.0	1.8	---	---	1.0	---
Methyl tert-butyl ether	**10**	---	---	---	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene Chloride	**5**	---	---	---	---	---	NS	---	---	---	5.0	---	---	---	---	---	---	---	---	---	---	---
n-Butylbenzene	**5**	1.0	---	---	---	---	NS	---	2.0	---	5.0	---	0.4	3.3	---	5.0	---	2.4	2	0.63 J	---	---
n-propylbenzene	**5**	4.0	---	---	---	---	NS	---	2.0	---	**12.0**	**11.7**	**1.2**	**7.1**	---	**26.0**	**10.3**	**9.0**	**12.2**	1.9 J	---	---
o-Xylene	**5**	---	---	---	---	---	NS	---	---	---	1.0	---	---	0.52 J	---	**11.0**	1.2	0.3	1.3	---	0.9	---
p-Isopropyltoluene	**5**	---	---	---	---	---	NS	---	---	---	---	---	---	0.26	---	4.0	---	---	---	---	---	---
sec-Butylbenzene	**5**	2.0	---	---	0.39 J	---	NS	---	3.0	---	4.0	---	1.1	3.3	---	5.0	---	2.5	3.3	1.3 J	---	---
tert-Butylbenzene	**5**	1.0	---	---	0.45 J	---	NS	---	---	---	---	---	0.4	0.81 J	---	1.0	---	0.7	0.90 J	---	---	---
Toluene	**5**	---	---	---	---	---	NS	---	---	---	3.0	2.2	0.4	1	0.66 J	**16.0**	2.1	0.7	2.6	---	---	---
Tetrachloroethene	**5**	---	---	0.2	---	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene	**5**	---	---	0.3	---	---	NS	1.1	---	---	---	---	---	---	---	2.0	---	1.6	0.50 J	---	---	1.4
Vinyl Chloride	**2**	**5.0**	**2.2**	0.8	0.62 J	---	NS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total VOCs	---	**90**	**38**	**50**	**52**	**36**	**NS**	**4**	**13**	**0**	**89**	**69**	**19**	**47**	**11**	**458**	**71**	**54**	**81**	**13**	**18**	**7**

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TABLE 3 - SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS - VOCs [DETECTIONS ONLY] (µg/L)

Compound	State Standard[1] (µg/L)	Monitoring Well Location								
		MW-12					RW-1	RW-2	RW-3	RW-4
		07/14/09	09/23/15	12/16/16	10/05/17	12/05/18	09/23/15	09/23/15	09/23/15	09/23/15
Acetone	**50**	7.0	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	**1**		---	---	---	---	---	---	---	---
1,1-Dichloroethane	**5**	---	---	---	---	---	2.3	---	---	---
1,2,3-Trimethylbenzene	**5**	---	---	---	---	NA	---	---	---	---
1,2,4-Trichlorobenzene	**5**	---	---	---	---	---	---	---	---	---
1,2,4-Trimethylbenzene	**5**	---	---	---	---	---	---	---	---	---
1,2-Dibromo-3-Chloropropane	**0.04**	---	---	---	---	---	---	---	---	---
1,2-Dichlorobenzene	**3**	**6.0**	**6.4**	**4.8**	**3.3**	**3.4**	**3.4**	**4.6**	**5.6**	**5.6**
1,2-Dichloroethene (Total)	**5**	---	---	---	---	---	---	---	---	---
1,2-Dichloropropane	**1**	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	**5**	---	---	---	---	---	---	---	---	---
1,3-Dichlorobenzene	**3**	---	---	0.3	---	---	**3.7**	---	---	---
1,4-Dichlorobenzene	**3**	---	1.3	1.7	1.2	1.8	**7.1**	**3.2**	1.8	2.0
2-Butanone (MEK)	**50**	---	---	---	---	---	---	---	---	---
Benzene	**1**	1.0	---	0.5	0.20 J	0.46 J	**1.1**	**3.7**	**2.5**	**1.3**
Bromodichloromethane	**50**	NA	NA	NA	NA	---	NA	NA	NA	NA
Carbon Disulfide	**60**	---	---	---	---	---	---	---	---	---
Chlorobenzene	**5**	---	**9.1**	**10.1**	**12.1**	**11.2**	4.3	1.8	1.8	1.1
Chloroethane	**5**	2.0	---	---	---	---	2.5	---	---	---
Chloroform	**7**	---	---	---	---	---	---	---	---	---
Ethylbenzene	**5**	---	---	---	---	---	---	---	---	---
Isopropylbenzene	**5**	1.0	---	1.8	---	3.9	---	---	---	---
m/p-Xylenes	**5**	---	---	---	---	---	---	---	---	---
Methyl tert-butyl ether	**10**	---	---	---	---	---	---	---	---	---
Methylene Chloride	**5**	---	---	---	---	---	---	---	---	---
n-Butylbenzene	**5**	---	---	---	---	---	---	---	---	---
n-propylbenzene	**5**	---	---	0.4	---	1.3 J	---	---	---	---
o-Xylene	**5**	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	**5**	---	---	---	---	---	---	---	---	---
sec-Butylbenzene	**5**	---	---	---	0.51 J	1.4 J	---	---	---	---
tert-Butylbenzene	**5**	---	---	0.9	0.88 J	0.96 J	---	---	---	---
Toluene	**5**	---	---	---	---	---	---	---	---	---
Tetrachloroethene	**5**	---	---	---	---	---	---	---	---	---
Trichloroethene	**5**	---	---	---	---	---	1.7	1.7	---	---
Vinyl Chloride	**2**	---	---	---	---	---	---	---	---	---
Total VOCs	---	**17**	**17**	**21**	**17**	**24**	**26**	**15**	**12**	**10**

Notes:

[1]DEC Division of Water's Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values* , reissued June 1998.

VOCs Volatile Organic Compounds
PCBs Polychlorinated Biphenyls
NA Not Analyzed
NS Not Sampled
µg/L micrograms per liter, equivalent to parts per billion (ppb)
--- Indicates the specified compound was not detected at a concentration exceeding the method detection limit.

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TABLE 4 - SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS - TOTAL PCBs (µg/L)

Compound	State Standard[1] (µg/L)	Sample Date	Monitoring Well Location															
			MW-1D	MW-1S	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	RW-1	RW-2	RW-3	RW-4
Total PCBs	**0.09**	03/12/2008	---	FP	FP	---	---	---	NS	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Total PCBs	**0.09**	2009*	---	FP	FP	NS	NS	NS	---	FP	**0.13**	**0.93**	---	---	---	NI	NI	NI	NI
		12/08/2011	**Remedial Excavation Completed**																
Total PCBs	**0.09**	09/23/2015	**0.32**	FP	**2.5**	---	---	---	---	**11.3**	---	---	**0.29**	---	---	**5.5**	**3.3**	**0.23**	---
Total PCBs	**0.09**	12/16/2016	---	FP	**12**	NS	NS	---	---	FP	NS	---	**2.9**	NS	---	NS	NS	NS	NS
Total PCBs	**0.09**	10/05/2017	---	FP	**4.3**	NS	NS	---	---	FP	NS	---	---	NS	---	NS	NS	NS	NS
Total PCBs	**0.09**	12/05/2018	---	NS	**3.05**	NS	NS	---	---	NS	NS	---	**0.28**	NS	---	NS	NS	NS	NS

Legend: Hit | **Exceed**

Notes:

[1]DEC Division of Water's Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values*, reissued June 1998.
State standard for PCBs is 0.09 µg/L for each Aroclor.
PCBs Polychlorinated Bipenyls
µg/L Micrograms per liter
NI Not Installed
NS Not Sampled
FP Free Product Present - Not Sampled
--- Indicates the specified compound was not detected at a concentration exceeding the method detection limit.
*2009 samples collected on 1/5/2009, 6/29/2009 and 7/14/2009
Refer to laboratory reports for additional information.

QUANTA RESOURCES SITE
2802-2810 Lodi Street
City of Syracuse, Onondaga County, New York
DEC Site No. 7-34-013

TABLE 5 - PFAS AND 1,4-DIOXANE IN GROUNDWATER

Date Sampled: December 5, 2018

Client Sample ID:	Unit	State Standard[1]	MW-9	EQUIPMENT BLANK	MW-12	MW-10
Lab Sample ID:			JC79316-1	JC79316-2	JC79316-7	JC79316-8
MS Semi-volatiles (EPA 537M BY ID)						
Perfluorobutanoic acid	ng/L	-	10.5 J	ND (1.9)	4.87 J	ND (38)
Perfluoropentanoic acid	ng/L	-	ND (2.9)	ND (1.4)	ND (1.5)	ND (29)
Perfluorohexanoic acid	ng/L	-	7.03 J	ND (0.96)	1.31 J	ND (19)
Perfluoroheptanoic acid	ng/L	-	2.09 J	ND (0.96)	ND (1.0)	ND (19)
Perfluorooctanoic acid	ng/L	-	23.6[a]	ND (0.96)	3.41	ND (19)[b]
Perfluorononanoic acid	ng/L	70	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
Perfluorodecanoic acid	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
Perfluoroundecanoic acid	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
Perfluorododecanoic acid	ng/L	-	ND (2.9)	ND (1.4)	ND (1.5)	ND (29)
Perfluorotridecanoic acid	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
Perfluorotetradecanoic acid	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
Perfluorobutanesulfonic acid	ng/L	-	1.93 J	ND (0.96)	ND (1.0)	ND (19)
Perfluorohexanesulfonic acid	ng/L	-	2.87 J	ND (0.96)	ND (1.0)	ND (19)
Perfluoroheptanesulfonic acid	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
Perfluorooctanesulfonic acid	ng/L	-	3.40 J	ND (1.4)	6.12	ND (29)
Perfluorodecanesulfonic acid	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
PFOSA	ng/L	-	ND (1.9)	ND (0.96)	ND (1.0)	ND (19)
MeFOSAA	ng/L	-	ND (7.7)	ND (3.8)	ND (4.0)	ND (77)
EtFOSAA	ng/L	-	ND (7.7)	ND (3.8)	ND (4.0)	ND (77)
6:2 Fluorotelomer sulfonate	ng/L	-	ND (3.8)	ND (1.9)	ND (2.0)	ND (38)
8:2 Fluorotelomer sulfonate	ng/L	-	ND (3.8)	ND (1.9)	ND (2.0)	ND (38)
MS Semi-volatiles (SW846 8270D BY SIM)						
1,4-Dioxane	µg/L	-	2.34	-	0.239	0.225

Notes: **Legend:** Hit | **Exceed**

[1]DEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values,* reissued June 1998.
[a]Associated CCV outside of control limits high.
[b]Associated CCV outside of control limits high, sample was ND.
PFAS Per- and Poly-Fluorinated Alkyl Substances
ng/L nanograms per liter, equivalent to parts per trillion (ppt)
µg/L micrograms per liter, equivalent to parts per billion (ppb)
ND Not Detected
J Indicates an estimated value

WELL INSPECTION LOGS

WELL INSPECTION LOG

2802-2810 LODI STREET
DEC Site No. 7-34-013
City of Syracuse, Onondaga County, New York

Inspector: MTM
Company: Plumley

Date: 2/28/18

Recovery Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Free Product Thickness (inches)	Free Product Volume Removed (gallons)	Comments
MW-1S	OK	2.680	Y	1.75	2 Full	Replace
MW-2		30.41	N			
MW-7		23.95	Y	0.3	1/2	Replace
MW-10		26.90	N			
RW-1		28.06	N			
RW-2		26.61	N			
RW-3		27.98	~~Y~~ N	—	1/4	
RW-4		27.15	N			

Monitoring Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Comments
MW-1D				
MW-3				
MW-4				
MW-5				
MW-6				
MW-8				
MW-9				
MW-11				
MW-12				

WELL INSPECTION LOG

2802-2810 LODI STREET
DEC Site No. 7-34-013
City of Syracuse, Onondaga County, New York

Inspector: MTM
Company: Plumley

Date: 5/30/18

Recovery Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Free Product Thickness (inches)	Free Product Volume Removed (gallons)	Comments
MW-1S	OK	29.11	Y	0.8' ft	< 1/4	Replace Socks
MW-2	↓	27.55	N			↓
MW-7		25.62	Y	< .1	film	
MW-10		27.99	Y	< .1	film	↓
RW-1		26.89	N			None
RW-2		27.33	↓			↓
RW-3		26.72	↓			
RW-4	↓	25.87				

Monitoring Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Comments
MW-1D		31.95	N	
MW-3	Top Com	25.91	↓	
MW-4	↓	—		
MW-5		24.21		
MW-6	OK	32.12		
MW-8	↓	26.71		
MW-9		29.31		
MW-11	↓	30.99	↓	
MW-12	Top Gone	28.04		

WELL INSPECTION LOG

2802-2810 LODI STREET
DEC Site No. 7-34-013
City of Syracuse, Onondaga County, New York

Inspector: MTM
Company: Plumley

Date: 4/28/18

Recovery Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Free Product Thickness (inches)	Free Product Volume Removed (gallons)	Comments
MW-1S		28.69	Y	0.3' ft	< 1/4	Repace Sock
MW-2		26.89	N	N		
MW-7		24.97				
MW-10		27.19				
RW-1		26.08				
RW-2		26.07				
RW-3		26.01				
RW-4		25.17	↓	↓		

Monitoring Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Comments
MW-1D				
MW-3				
MW-4				
MW-5				
MW-6				
MW-8				
MW-9				
MW-11				
MW-12				

WELL INSPECTION LOG

2802-2810 LODI STREET
DEC Site No. 7-34-013
City of Syracuse, Onondaga County, New York

Inspector: MTM
Company: Plumley

Date: 12/5/18

Recovery Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Free Product Thickness (inches)	Free Product Volume Removed (gallons)	Comments
MW-1S	OK	29.75	Y	4.75 ft	2 1/2 Gallon	Replaced / Removed
MW-2	↓	27.72				
MW-7		23.86	Y	0.1	1 sock	Replaced
MW-10		24.09	Y	< .10		Removed
RW-1		27.32				
RW-2		26.95				
RW-3		26.40	Y	< .10		Removed
RW-4	↓	25.41				

Monitoring Well	Well Head Conditions: OK / Not OK	Depth to Water (feet)	Free Product: Present (Yes) Absent (No)	Comments
MW-1D	OK	30.55	N	
MW-3	↓	25.40	↓	
MW-4	Cap	26.24		
MW-5	Cap	22.25		
MW-6	Cap	29.97		
MW-8		26.41		
MW-9		27.59		
MW-11	↓	29.17	↓	
MW-12	Cap	26.80		

GROUNDWATER SAMPLING FIELD LOGS

PLUMLEY ENGINEERING, P.C.
GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-1D **Sampler:** MTM/DTH

Well & Water Level Data:
Total Depth of Well: 50.19 **feet**
Initial Depth to Water: 30.55 **feet**
Length of Water Column (LWC): 19. **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed		
1	LWC * 0.041 * 3	=	Gallons
1.25	LWC * 0.064 * 3	=	Gallons
1.5	LWC * 0.092 * 3	=	Gallons
2	LWC * 0.163 * 3	= 10	Gallons
3	LWC * 0.367 * 3	=	Gallons
4	LWC * 0.653 * 3	=	Gallons
6	LWC * 1.469 * 3	=	Gallons

Free Product Check: **Free Product Present:** Yes (No)
Measured Thickness/Comment:

Purge Data: **Purge Date:**
Purging Time: **From:** 12:15 **To:** 12:30
Type of Purging Equipment Used: Whale Pump
Purged Water Comments: slight odor - no sheen

Sampling Data: **Depth to Water at Sampling:** 30.22 **feet**
Color of Sample: clear **Sample Date:** 12/5/18
Turbidity: — **Sample Time:** 14:00
Type of Sampling Equipment Used: Bailer

Field Indicators Present During Sample Collection:
Odor
Sheen
Free Product
None X

Notes:

Weather: **Temperature °F** 40 (Sunny) **Cloudy** **Rain** **Snow**

Revised 08/15/07

PLUMLEY ENGINEERING, P.C.

GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: _____ **Date:** 12/5/2018
Source Description: MW-1S **Sampler:** MTM/DTH

Well & Water Level Data:

Total Depth of Well: 38.9 **feet**
Initial Depth to Water: _____ **feet**
Length of Water Column (LWC): _____ **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed
1	LWC * 0.041 * 3 = _____ Gallons
1.25	LWC * 0.064 * 3 = _____ Gallons
1.5	LWC * 0.092 * 3 = _____ Gallons
2	LWC * 0.163 * 3 = _____ Gallons
3	LWC * 0.367 * 3 = _____ Gallons
4	LWC * 0.653 * 3 = _____ Gallons
6	LWC * 1.469 * 3 = _____ Gallons

Free Product Check: **Free Product Present:** (Yes) No
Measured Thickness/Comment: 4.55

Purge Data: **Purge Date:** _____

Purging Time: **From:** _____ **To:** _____

Type of Purging Equipment Used: _____
Purged Water Comments: _____

Sampling Data: **Depth to Water at Sampling:** _____ **feet**

Color of Sample: _____ **Sample Date:** _____
Turbidity: _____ **Sample Time:** _____

Type of Sampling Equipment Used: _____

Field Indicators Present During Sample Collection:

Odor _____
Sheen _____
Free Product _____
None _____

Notes:

No sample
2 0.16 gal removed

Weather: **Temperature °F** _____ **Sunny Cloudy Rain Snow**

Revised 08/15/07

PLUMLEY ENGINEERING, P.C.

GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-2 **Sampler:** MTM/DTH

Well & Water Level Data:

Total Depth of Well: 37.9 **feet**
Initial Depth to Water: 27.70 **feet**
Length of Water Column (LWC): _____ **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed			
1	LWC * 0.041 * 3	=	_____	Gallons
1.25	LWC * 0.064 * 3	=	_____	Gallons
1.5	LWC * 0.092 * 3	=	_____	Gallons
2	LWC * 0.163 * 3	=	5	Gallons
3	LWC * 0.367 * 3	=	_____	Gallons
4	LWC * 0.653 * 3	=	_____	Gallons
6	LWC * 1.469 * 3	=	_____	Gallons

Free Product Check: **Free Product Present:** Yes (No)
Measured Thickness/Comment: _____

Purge Data: **Purge Date:** 12/5/18

Purging Time: **From:** 12:00 **To:** 12:10

Type of Purging Equipment Used: Whale Pump
Purged Water Comments: slight sheen - odor

Sampling Data: **Depth to Water at Sampling:** 27.91 **feet**

Color of Sample: clear **Sample Date:** 12/5/18
Turbidity: slight **Sample Time:** 13:47

Type of Sampling Equipment Used: Bailer

Field Indicators Present During Sample Collection:

Odor X
Sheen _____
Free Product _____
None _____

Notes:

_____

_____

_____

Weather: **Temperature °F** 70 (Sunny) Cloudy Rain Snow

Revised 08/15/07

PLUMLEY ENGINEERING, P.C.
GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-5 **Sampler:** MTM/DTH

Well & Water Level Data:

Total Depth of Well: 42.01 **feet**
Initial Depth to Water: 22.25 **feet**
Length of Water Column (LWC): 19.76 **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed
1	LWC * 0.041 * 3 = _____ Gallons
1.25	LWC * 0.064 * 3 = _____ Gallons
1.5	LWC * 0.092 * 3 = _____ Gallons
2	LWC * 0.163 * 3 = _____ Gallons
3	LWC * 0.367 * 3 = _____ Gallons
4	LWC * 0.653 * 3 = _____ Gallons
6	LWC * 1.469 * 3 = _____ Gallons

Free Product Check: **Free Product Present:** **Yes** **No**
Measured Thickness/Comment:

Purge Data: **Purge Date:** 12/5

Purging Time: **From:** 11:45 **To:** 1152

Type of Purging Equipment Used: B Whale Pump
Purged Water Comments: clear

Sampling Data: **Depth to Water at Sampling:** 22.30 **feet**

Color of Sample: clear **Sample Date:** 12/5/18
Turbidity: — **Sample Time:** 13:25

Type of Sampling Equipment Used: Bailer

Field Indicators Present During Sample Collection:

Odor _____
Sheen _____
Free Product _____
None X

Notes:

Weather: **Temperature °F** 70 **Sunny** **Cloudy** **Rain** **Snow**

Revised 08/15/07

PLUMLEY ENGINEERING, P.C.

GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-6 **Sampler:** MTM/DTH

Well & Water Level Data:

Total Depth of Well: 41.49 **feet**
Initial Depth to Water: 29.97 **feet**
Length of Water Column (LWC): 11.52 **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed			
1	LWC * 0.041 * 3	=	_____	Gallons
1.25	LWC * 0.064 * 3	=	_____	Gallons
1.5	LWC * 0.092 * 3	=	_____	Gallons
2	LWC * 0.163 * 3	=	10	Gallons
3	LWC * 0.367 * 3	=	_____	Gallons
4	LWC * 0.653 * 3	=	_____	Gallons
6	LWC * 1.469 * 3	=	_____	Gallons

Free Product Check: **Free Product Present:** Yes (No)
Measured Thickness/Comment:

Purge Data: **Purge Date:** 12/5/18

Purging Time: **From:** 11:30 **To:** 11:40

Type of Purging Equipment Used: Whale Pump
Purged Water Comments: Pink shale

Sampling Data: **Depth to Water at Sampling:** 30.03 **feet**

Color of Sample: pinkish **Sample Date:** 12/5/18
Turbidity: slight **Sample Time:** 13:01

Type of Sampling Equipment Used: Bailer

Field Indicators Present During Sample Collection:

Odor _____
Sheen _____
Free Product _____
None X

Notes:

Weather: **Temperature °F** 20 (Sunny) Cloudy Rain Snow

Revised 08/15/07

PLUMLEY ENGINEERING, P.C.
GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-9 **Sampler:** MTM/DTH

Well & Water Level Data:

Total Depth of Well: 36.53 **feet**
Initial Depth to Water: 27.59 **feet**
Length of Water Column (LWC): 8.94 **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed			
1	LWC * 0.041 * 3	=	_____	Gallons
1.25	LWC * 0.064 * 3	=	_____	Gallons
1.5	LWC * 0.092 * 3	=	_____	Gallons
2	LWC * 0.163 * 3	=	44	Gallons
3	LWC * 0.367 * 3	=	_____	Gallons
4	LWC * 0.653 * 3	=	_____	Gallons
6	LWC * 1.469 * 3	=	_____	Gallons

Free Product Check: **Free Product Present:** Yes (No)
Measured Thickness/Comment: NA

Purge Data: **Purge Date:** 12/5/18

Purging Time: **From:** 1020 **To:** 11:41

Type of Purging Equipment Used: Bladder Pump
Purged Water Comments: clear

Sampling Data: **Depth to Water at Sampling:** _____ **feet**

Color of Sample: _____ **Sample Date:** 12/5
Turbidity: slight **Sample Time:** 12.30

Type of Sampling Equipment Used: Bladder Pump - low flow

Field Indicators Present During Sample Collection:

Odor _____
Sheen _____
Free Product _____
None X

Notes:
MS / MSD collected

Weather: **Temperature °F** 205 (Sunny) Cloudy Rain Snow

PLUMLEY ENGINEERING, P.C.
GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-10 **Sampler:** MTM/DTH

Well & Water Level Data:
Total Depth of Well: 34.60 feet
Initial Depth to Water: 24.69 feet
Length of Water Column (LWC): 9.90 feet

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed	
1	LWC * 0.041 * 3 =	Gallons
1.25	LWC * 0.064 * 3 =	Gallons
1.5	LWC * 0.092 * 3 =	Gallons
2	LWC * 0.163 * 3 = 5	Gallons
3	LWC * 0.367 * 3 =	Gallons
4	LWC * 0.653 * 3 =	Gallons
6	LWC * 1.469 * 3 =	Gallons

Free Product Check: **Free Product Present:** (Yes) No
Measured Thickness/Comment: film on bailer

Purge Data: **Purge Date:** 12/5/18
Purging Time: **From:** 11:50 **To:** 12:40
Type of Purging Equipment Used: Bladder Pump
Purged Water Comments: Clear - some odor - petro

Sampling Data: **Depth to Water at Sampling:** 24.50 feet
Color of Sample: clear **Sample Date:** 12/5
Turbidity: slight **Sample Time:** ~~14:00~~ 16:40
Type of Sampling Equipment Used: Bladder Pump

Field Indicators Present During Sample Collection:
Odor X
Sheen
Free Product
None X

Notes:

Weather: **Temperature °F** 10 (Sunny) Cloudy Rain Snow

Revised 08/15/07

PLUMLEY ENGINEERING, P.C.

GROUNDWATER SAMPLING FIELD LOG

Client/Site: Quanta Resources **Project No.:** 2015007
Monitoring Location: **Date:** 12/5/2018
Source Description: MW-12 **Sampler:** MTM/DTH

Well & Water Level Data:

Total Depth of Well: 37.42 **feet**
Initial Depth to Water: 26.80 **feet**
Length of Water Column (LWC): **feet**

Purge Volume Calculation:

Well Diameter (inches):	Calculated Well Volume To Be Removed
1	LWC * 0.041 * 3 = _____ Gallons
1.25	LWC * 0.064 * 3 = _____ Gallons
1.5	LWC * 0.092 * 3 = _____ Gallons
2	LWC * 0.163 * 3 = _____ Gallons
3	LWC * 0.367 * 3 = _____ Gallons
4	LWC * 0.653 * 3 = _____ Gallons
6	LWC * 1.469 * 3 = _____ Gallons

Free Product Check: **Free Product Present:** Yes (No)
Measured Thickness/Comment:

Purge Data: **Purge Date:** 12/5/18

Purging Time: **From:** 12:00 **To:** 1:20

Type of Purging Equipment Used: Bladder Pump
Purged Water Comments: Clear

Sampling Data: **Depth to Water at Sampling:** **feet**

Color of Sample: clear **Sample Date:** 12/5/18
Turbidity: slight **Sample Time:** 14:50

Type of Sampling Equipment Used: Bladder Pump

Field Indicators Present During Sample Collection:

Odor
Sheen
Free Product
None X

Notes:

Weather: **Temperature °F** 70 (Sunny) **Cloudy** **Rain** **Snow**

Revised 08/15/07

LABORATORY REPORT

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Plumley Environmental Engineers

Quanta Resources, Lodi Street, Syracuse, NY

2015127.006

SGS Job Number: JC79316

Sampling Date: 12/05/18

Report to:

Plumley Environmental Engineers

dhudson@plumleyeng.com

ATTN: Derk Hudson

Total number of pages in report: 50

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Thelma Flaherty 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

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SGS LabLink@14:59 26-Dec-2018

Sample Summary

Plumley Environmental Engineers

Job No: JC79316

Quanta Resources, Lodi Street, Syracuse, NY
Project No: 2015127.006

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC79316-1	12/05/18	12:30	MM	12/07/18	AQ	Ground Water	MW-9
JC79316-1D	12/05/18	12:30	MM	12/07/18	AQ	Water Dup/MSD	MW-9 MSD
JC79316-1S	12/05/18	12:30	MM	12/07/18	AQ	Water Matrix Spike	MW-9 MS
JC79316-2	12/05/18	12:50	MM	12/07/18	AQ	Equipment Blank	EQUIPMENT BLANK
JC79316-3	12/05/18	13:01	MM	12/07/18	AQ	Ground Water	MW-6
JC79316-4	12/05/18	13:25	MM	12/07/18	AQ	Ground Water	MW-5
JC79316-5	12/05/18	13:47	MM	12/07/18	AQ	Ground Water	MW-2
JC79316-6	12/05/18	14:00	MM	12/07/18	AQ	Ground Water	MW-1-D
JC79316-7	12/05/18	14:50	MM	12/07/18	AQ	Ground Water	MW-12
JC79316-8	12/05/18	16:40	MM	12/07/18	AQ	Ground Water	MW-10

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Plumley Environmental Engineers	**Job No**	JC79316
Site:	Quanta Resources, Lodi Street, Syracuse, NY	**Report Date**	12/26/2018 2:40:17 P

On 12/07/2018, 8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC79316 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2V2263

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC79316-1MS, JC79316-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 1,1,2,2-Tetrachloroethane are outside control limits. High percent recoveries and no associated positive reported in the QC batch.
- RPD(s) for MSD for Bromomethane are outside control limits for sample JC79316-1MSD. Outside control limits due to matrix interference.
- JC79316-6 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC79316-4 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC79316-1 for Bromomethane: Associated CCV outside of control limits low.
- JC79316-3 for Bromomethane: Associated CCV outside of control limits low.
- JC79316-3 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC79316-3 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC79316-4 for Bromomethane: Associated CCV outside of control limits low.
- JC79316-6 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC79316-6 for Bromomethane: Associated CCV outside of control limits low.
- JC79316-1 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC79316-7 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC79316-7 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC79316-4 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC79316-8 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC79316-8 for 1,1,2,2-Tetrachloroethane: This compound in BS is outside in house QC limits bias high.
- JC79316-7 for Bromomethane: Associated CCV outside of control limits low.
- JC79316-1 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC79316-8 for Bromomethane: Associated CCV outside of control limits low.

Matrix: AQ **Batch ID:** V2V2267

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC79319-15MS, JC79319-15MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1,2,2-Tetrachloroethane are outside control limits. High percent recoveries and no associated positive reported in the QC batch.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2V2267

- Matrix Spike Recovery(s) for 1,1-Dichloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for Bromomethane are outside control limits for sample JC79319-15MSD. Probable cause due to sample homogeneity.
- JC79316-5 for 1,1,2,2-Tetrachloroethane: Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.
- JC79319-15MSD for Bromomethane: Outside control limits due to matrix interference.
- JC79316-5 for Bromomethane: Associated CCV outside of control limits low.
- JC79316-5 for 1,2-Dichloroethane: Associated CCV outside of control limits high, sample was ND.
- V2V2267-BS for 1,1,2,2-Tetrachloroethane: High percent recoveries and no associated positive reported in the QC batch.

MS Semi-volatiles By Method EPA 537M BY ID

Matrix: AQ **Batch ID:** F:OP73036

- The data for EPA 537M BY ID meets quality control requirements.
- JC79316-1: Dilution required due to matrix interference. Analysis performed at SGS Orlando, FL.
- JC79316-2: Analysis performed at SGS Orlando, FL.
- JC79316-8: Dilution required due to matrix interference. Analysis performed at SGS Orlando, FL.
- JC79316-7: Analysis performed at SGS Orlando, FL.
- JC79316-1 for Perfluorooctanoic acid: Associated CCV outside of control limits high.
- JC79316-8 for Perfluorooctanoic acid: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D BY SIM

Matrix: AQ **Batch ID:** OP17214A

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: AQ **Batch ID:** OP17274

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC79316-3 have surrogates outside control limits. Probable cause due to matrix interference.
- JC79316-5 for Aroclor 1248: More than 40 % RPD for detected concentrations between the two GC columns.
- JC79316-3 for Decachlorobiphenyl: Outside the QC limits. There is no sample left to re-extract.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	SGS Dayton, NJ	**Job No**	JC79316
Site:	PLUMNYB: Quanta Resources, Lodi Street, Syracuse, NY	**Report Date**	12/26/2018 1:51:04

4 Samples were collected on 12/05/2018 and were received at SGS North America Inc - Orlando on 12/07/2018 properly preserved, at 3.8 Deg. C and intact. These samples received an SGS Orlando job number of JC79316. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Semi-Volatiles By Method EPA 537M BY ID

Matrix: AQ **Batch ID:** OP73036

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) JC79316-1MS, JC79316-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

JC79316-1 for Perfluorooctanoic acid: Associated CCV outside of control limits high.

JC79316-1: Dilution required due to matrix interference.

JC79316-8 for Perfluorooctanoic acid: Associated CCV outside of control limits high, sample was ND.

JC79316-8: Dilution required due to matrix interference.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services *(Signature on File)*

Summary of Hits

Job Number: JC79316
Account: Plumley Environmental Engineers
Project: Quanta Resources, Lodi Street, Syracuse, NY
Collected: 12/05/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC79316-1	**MW-9**					
Benzene		0.66	0.50	0.43	ug/l	SW846 8260C
Chlorobenzene		5.8	1.0	0.56	ug/l	SW846 8260C
1,2-Dichlorobenzene		1.0	1.0	0.53	ug/l	SW846 8260C
1,3-Dichlorobenzene		0.62 J	1.0	0.54	ug/l	SW846 8260C
1,4-Dichlorobenzene		1.6	1.0	0.51	ug/l	SW846 8260C
Isopropylbenzene		0.72 J	1.0	0.65	ug/l	SW846 8260C
Toluene		0.66 J	1.0	0.53	ug/l	SW846 8260C
Perfluorobutanoic acid [a]		10.5 J	15	3.8	ng/l	EPA 537M BY ID
Perfluorohexanoic acid [a]		7.03 J	7.7	1.9	ng/l	EPA 537M BY ID
Perfluoroheptanoic acid [a]		2.09 J	3.8	1.9	ng/l	EPA 537M BY ID
Perfluorooctanoic acid [b]		23.6	3.8	1.9	ng/l	EPA 537M BY ID
Perfluorobutanesulfonic acid [a]		1.93 J	3.8	1.9	ng/l	EPA 537M BY ID
Perfluorohexanesulfonic acid [a]		2.87 J	3.8	1.9	ng/l	EPA 537M BY ID
Perfluorooctanesulfonic acid [a]		3.40 J	3.8	2.9	ng/l	EPA 537M BY ID
1,4-Dioxane		2.34	0.095	0.046	ug/l	SW846 8270D BY SIM
JC79316-2	**EQUIPMENT BLANK**					
No hits reported in this sample.						
JC79316-3	**MW-6**					
Benzene		1.7	0.50	0.43	ug/l	SW846 8260C
Chlorobenzene		23.9	1.0	0.56	ug/l	SW846 8260C
1,2-Dichlorobenzene		4.5	1.0	0.53	ug/l	SW846 8260C
1,3-Dichlorobenzene		2.4	1.0	0.54	ug/l	SW846 8260C
1,4-Dichlorobenzene		2.7	1.0	0.51	ug/l	SW846 8260C
1,1-Dichloroethane		0.61 J	1.0	0.57	ug/l	SW846 8260C
JC79316-4	**MW-5**					
Bromodichloromethane		0.82 J	1.0	0.58	ug/l	SW846 8260C
Chloroform		17.4	1.0	0.50	ug/l	SW846 8260C
JC79316-5	**MW-2**					
Benzene		1.4	0.50	0.43	ug/l	SW846 8260C
Chlorobenzene		0.97 J	1.0	0.56	ug/l	SW846 8260C
Chloroethane		0.89 J	1.0	0.73	ug/l	SW846 8260C
1,2-Dichlorobenzene		3.1	1.0	0.53	ug/l	SW846 8260C
1,3-Dichlorobenzene		2.5	1.0	0.54	ug/l	SW846 8260C
1,4-Dichlorobenzene		5.9	1.0	0.51	ug/l	SW846 8260C
1,1-Dichloroethane		0.73 J	1.0	0.57	ug/l	SW846 8260C

Summary of Hits

Job Number: JC79316
Account: Plumley Environmental Engineers
Project: Quanta Resources, Lodi Street, Syracuse, NY
Collected: 12/05/18

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
1,2-Dichloroethene (total)	1.0	1.0	0.51	ug/l	SW846 8260C
Trichloroethene	1.2	1.0	0.53	ug/l	SW846 8260C
Aroclor 1248 [c]	0.75	0.24	0.061	ug/l	SW846 8082A
Aroclor 1254	1.1	0.24	0.20	ug/l	SW846 8082A
Aroclor 1260	1.2	0.24	0.073	ug/l	SW846 8082A
JC79316-6 MW-1-D					
Benzene	0.52	0.50	0.43	ug/l	SW846 8260C
Chlorobenzene	0.57 J	1.0	0.56	ug/l	SW846 8260C
1,2-Dichlorobenzene	0.59 J	1.0	0.53	ug/l	SW846 8260C
1,1-Dichloroethane	2.3	1.0	0.57	ug/l	SW846 8260C
1,2-Dichloroethene (total)	1.5	1.0	0.51	ug/l	SW846 8260C
Vinyl chloride	24.0	1.0	0.79	ug/l	SW846 8260C
JC79316-7 MW-12					
Benzene	0.46 J	0.50	0.43	ug/l	SW846 8260C
sec-Butylbenzene	1.4 J	2.0	0.62	ug/l	SW846 8260C
tert-Butylbenzene	0.96 J	2.0	0.69	ug/l	SW846 8260C
Chlorobenzene	11.2	1.0	0.56	ug/l	SW846 8260C
1,2-Dichlorobenzene	3.4	1.0	0.53	ug/l	SW846 8260C
1,4-Dichlorobenzene	1.8	1.0	0.51	ug/l	SW846 8260C
Isopropylbenzene	3.9	1.0	0.65	ug/l	SW846 8260C
n-Propylbenzene	1.3 J	2.0	0.60	ug/l	SW846 8260C
Perfluorobutanoic acid [d]	4.87 J	8.0	2.0	ng/l	EPA 537M BY ID
Perfluorohexanoic acid [d]	1.31 J	4.0	1.0	ng/l	EPA 537M BY ID
Perfluorooctanoic acid [d]	3.41	2.0	1.0	ng/l	EPA 537M BY ID
Perfluorooctanesulfonic acid [d]	6.12	2.0	1.5	ng/l	EPA 537M BY ID
1,4-Dioxane	0.239	0.095	0.046	ug/l	SW846 8270D BY SIM
JC79316-8 MW-10					
Benzene	2.3	0.50	0.43	ug/l	SW846 8260C
n-Butylbenzene	0.63 J	2.0	0.52	ug/l	SW846 8260C
sec-Butylbenzene	1.3 J	2.0	0.62	ug/l	SW846 8260C
1,2-Dichlorobenzene	2.6	1.0	0.53	ug/l	SW846 8260C
1,4-Dichlorobenzene	1.1	1.0	0.51	ug/l	SW846 8260C
1,2-Dichloroethene (total)	0.93 J	1.0	0.51	ug/l	SW846 8260C
Isopropylbenzene	2.3	1.0	0.65	ug/l	SW846 8260C
n-Propylbenzene	1.9 J	2.0	0.60	ug/l	SW846 8260C
1,4-Dioxane	0.225	0.10	0.049	ug/l	SW846 8270D BY SIM
Aroclor 1254	0.28	0.24	0.20	ug/l	SW846 8082A

(a) Dilution required due to matrix interference. Analysis performed at SGS Orlando, FL.

Summary of Hits

Job Number: JC79316
Account: Plumley Environmental Engineers
Project: Quanta Resources, Lodi Street, Syracuse, NY
Collected: 12/05/18

Lab Sample ID	Client Sample ID	Result/				
Analyte		Qual	RL	MDL	Units	Method

(b) Dilution required due to matrix interference. Analysis performed at SGS Orlando, FL. Associated CCV outside of control limits high.
(c) More than 40 % RPD for detected concentrations between the two GC columns.
(d) Analysis performed at SGS Orlando, FL.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-9
Lab Sample ID: JC79316-1
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55851.D	1	12/12/18 09:16	JP	n/a	n/a	V2V2263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	0.66	0.50	0.43	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.62	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.69	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	5.8	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	1.0	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	0.62	1.0	0.54	ug/l	J
106-46-7	1,4-Dichlorobenzene	1.6	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	JC79316-1	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	0.72	1.0	0.65	ug/l	J
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.60	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [b]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	0.66	1.0	0.53	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-9
Lab Sample ID: JC79316-1
Matrix: AQ - Ground Water
Method: SW846 8270D BY SIM SW846 3510C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3P73448.D	1	12/13/18 02:49	SA	12/11/18 04:30	OP17214A	E3P3464
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	2.34	0.095	0.046	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	56%		29-124%
321-60-8	2-Fluorobiphenyl	45%		23-122%
1718-51-0	Terphenyl-d14	46%		22-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-9
Lab Sample ID: JC79316-1
Matrix: AQ - Ground Water
Method: EPA 537M BY ID EPA 537 MOD
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2Q25412.D	2	12/21/18 20:05	AFL	12/14/18 08:45	F:OP73036	F:S2Q394
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	10.5	15	3.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	ND	7.7	2.9	ng/l	
307-24-4	Perfluorohexanoic acid	7.03	7.7	1.9	ng/l	J
375-85-9	Perfluoroheptanoic acid	2.09	3.8	1.9	ng/l	J
335-67-1	Perfluorooctanoic acid [b]	23.6	3.8	1.9	ng/l	
375-95-1	Perfluorononanoic acid	ND	3.8	1.9	ng/l	
335-76-2	Perfluorodecanoic acid	ND	7.7	1.9	ng/l	
2058-94-8	Perfluoroundecanoic acid	ND	7.7	1.9	ng/l	
307-55-1	Perfluorododecanoic acid	ND	7.7	2.9	ng/l	
72629-94-8	Perfluorotridecanoic acid	ND	7.7	1.9	ng/l	
376-06-7	Perfluorotetradecanoic acid	ND	7.7	1.9	ng/l	
375-73-5	Perfluorobutanesulfonic acid	1.93	3.8	1.9	ng/l	J
355-46-4	Perfluorohexanesulfonic acid	2.87	3.8	1.9	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	ND	7.7	1.9	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	3.40	3.8	2.9	ng/l	J
335-77-3	Perfluorodecanesulfonic acid	ND	7.7	1.9	ng/l	
754-91-6	PFOSA	ND	7.7	1.9	ng/l	
2355-31-9	MeFOSAA	ND	38	7.7	ng/l	
2991-50-6	EtFOSAA	ND	38	7.7	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	15	3.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	15	3.8	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	79%		30-140%
	13C5-PFPeA	90%		40-140%
	13C5-PFHxA	94%		50-150%
	13C4-PFHpA	103%		50-150%
	13C8-PFOA	120%		50-150%
	13C9-PFNA	112%		50-150%
	13C6-PFDA	97%		50-150%
	13C7-PFUnDA	99%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	JC79316-1	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	EPA 537M BY ID EPA 537 MOD	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

PFAS List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFDoDA	108%		50-150%
	13C2-PFTeDA	123%		40-150%
	13C3-PFBS	94%		50-150%
	13C3-PFHxS	99%		50-150%
	13C8-PFOS	101%		50-150%
	13C8-FOSA	50%		30-140%
	d3-MeFOSAA	124%		50-150%
	13C2-6:2FTS	148%		50-150%
	13C2-8:2FTS	112%		50-150%

(a) Dilution required due to matrix interference. Analysis performed at SGS Orlando, FL.
(b) Associated CCV outside of control limits high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	JC79316-1	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240797.D	1	12/13/18 23:09	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.24	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.24	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.24	0.12	ug/l	
53469-21-9	Aroclor 1242	ND	0.24	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.24	0.061	ug/l	
11097-69-1	Aroclor 1254	ND	0.24	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.24	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	40%		11-166%
877-09-8	Tetrachloro-m-xylene	35%		11-166%
2051-24-3	Decachlorobiphenyl	17%		10-150%
2051-24-3	Decachlorobiphenyl	19%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: JC79316-2
Matrix: AQ - Equipment Blank
Method: EPA 537M BY ID EPA 537 MOD
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3Q558.D	1	12/18/18 22:30	AFL	12/14/18 08:45	F:OP73036	F:S3Q9
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	7.7	1.9	ng/l	
2706-90-3	Perfluoropentanoic acid	ND	3.8	1.4	ng/l	
307-24-4	Perfluorohexanoic acid	ND	3.8	0.96	ng/l	
375-85-9	Perfluoroheptanoic acid	ND	1.9	0.96	ng/l	
335-67-1	Perfluorooctanoic acid	ND	1.9	0.96	ng/l	
375-95-1	Perfluorononanoic acid	ND	1.9	0.96	ng/l	
335-76-2	Perfluorodecanoic acid	ND	3.8	0.96	ng/l	
2058-94-8	Perfluoroundecanoic acid	ND	3.8	0.96	ng/l	
307-55-1	Perfluorododecanoic acid	ND	3.8	1.4	ng/l	
72629-94-8	Perfluorotridecanoic acid	ND	3.8	0.96	ng/l	
376-06-7	Perfluorotetradecanoic acid	ND	3.8	0.96	ng/l	
375-73-5	Perfluorobutanesulfonic acid	ND	1.9	0.96	ng/l	
355-46-4	Perfluorohexanesulfonic acid	ND	1.9	0.96	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	3.8	0.96	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	1.9	1.4	ng/l	
335-77-3	Perfluorodecanesulfonic acid	ND	3.8	0.96	ng/l	
754-91-6	PFOSA	ND	3.8	0.96	ng/l	
2355-31-9	MeFOSAA	ND	19	3.8	ng/l	
2991-50-6	EtFOSAA	ND	19	3.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	7.7	1.9	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	7.7	1.9	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	70%		30-140%
	13C5-PFPeA	72%		40-140%
	13C5-PFHxA	77%		50-150%
	13C4-PFHpA	80%		50-150%
	13C8-PFOA	84%		50-150%
	13C9-PFNA	86%		50-150%
	13C6-PFDA	103%		50-150%
	13C7-PFUnDA	89%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	JC79316-2	**Date Sampled:**	12/05/18
Matrix:	AQ - Equipment Blank	**Date Received:**	12/07/18
Method:	EPA 537M BY ID EPA 537 MOD	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

PFAS List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFDoDA	76%		50-150%
	13C2-PFTeDA	72%		40-150%
	13C3-PFBS	72%		50-150%
	13C3-PFHxS	76%		50-150%
	13C8-PFOS	77%		50-150%
	13C8-FOSA	92%		30-140%
	d3-MeFOSAA	92%		50-150%
	13C2-6:2FTS	82%		50-150%
	13C2-8:2FTS	96%		50-150%

(a) Analysis performed at SGS Orlando, FL.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-6
Lab Sample ID: JC79316-3
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55852.D	1	12/12/18 09:41	JP	n/a	n/a	V2V2263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	1.7	0.50	0.43	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.62	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.69	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	23.9	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	4.5	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	2.4	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	2.7	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.61	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC79316-3	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.60	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [b]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	JC79316-3	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240798.D	1	12/13/18 23:27	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.24	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.24	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.24	0.12	ug/l	
53469-21-9	Aroclor 1242	ND	0.24	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.24	0.061	ug/l	
11097-69-1	Aroclor 1254	ND	0.24	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.24	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	19%		11-166%
877-09-8	Tetrachloro-m-xylene	17%		11-166%
2051-24-3	Decachlorobiphenyl	9% [a]		10-150%
2051-24-3	Decachlorobiphenyl	8% [a]		10-150%

(a) Outside the QC limits. There is no sample left to re-extract.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-5
Lab Sample ID: JC79316-4
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55853.D	1	12/12/18 10:07	JP	n/a	n/a	V2V2263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	0.82	1.0	0.58	ug/l	J
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.62	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.69	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	17.4	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	JC79316-4	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.60	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [b]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-5
Lab Sample ID: JC79316-4
Matrix: AQ - Ground Water
Method: SW846 8082A SW846 3510C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240799.D	1	12/13/18 23:45	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.24	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.24	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.24	0.12	ug/l	
53469-21-9	Aroclor 1242	ND	0.24	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.24	0.061	ug/l	
11097-69-1	Aroclor 1254	ND	0.24	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.24	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	133%		11-166%
877-09-8	Tetrachloro-m-xylene	121%		11-166%
2051-24-3	Decachlorobiphenyl	63%		10-150%
2051-24-3	Decachlorobiphenyl	61%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	JC79316-5	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55958.D	1	12/14/18 11:14	JTP	n/a	n/a	V2V2267
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	1.4	0.50	0.43	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.62	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.69	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	0.97	1.0	0.56	ug/l	J
75-00-3	Chloroethane	0.89	1.0	0.73	ug/l	J
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	3.1	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	2.5	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	5.9	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.73	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane [b]	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	1.0	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	JC79316-5	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.60	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [c]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	1.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	JC79316-5	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(c) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	JC79316-5	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240804.D	1	12/14/18 01:32	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.24	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.24	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.24	0.12	ug/l	
53469-21-9	Aroclor 1242	ND	0.24	0.11	ug/l	
12672-29-6	Aroclor 1248 [a]	0.75	0.24	0.061	ug/l	
11097-69-1	Aroclor 1254	1.1	0.24	0.20	ug/l	
11096-82-5	Aroclor 1260	1.2	0.24	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	141%		11-166%
877-09-8	Tetrachloro-m-xylene	113%		11-166%
2051-24-3	Decachlorobiphenyl	41%		10-150%
2051-24-3	Decachlorobiphenyl	46%		10-150%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1-D
Lab Sample ID: JC79316-6
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55873.D	1	12/12/18 17:57	JP	n/a	n/a	V2V2263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	0.52	0.50	0.43	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.62	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.69	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	0.57	1.0	0.56	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	0.59	1.0	0.53	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	2.3	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	1.5	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-1-D
Lab Sample ID: JC79316-6
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.60	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [b]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	24.0	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1-D		
Lab Sample ID:	JC79316-6	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240805.D	1	12/14/18 01:50	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.24	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.24	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.24	0.12	ug/l	
53469-21-9	Aroclor 1242	ND	0.24	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.24	0.061	ug/l	
11097-69-1	Aroclor 1254	ND	0.24	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.24	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	42%		11-166%
877-09-8	Tetrachloro-m-xylene	36%		11-166%
2051-24-3	Decachlorobiphenyl	19%		10-150%
2051-24-3	Decachlorobiphenyl	20%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-12
Lab Sample ID: JC79316-7
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55872.D	1	12/12/18 17:31	JP	n/a	n/a	V2V2263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	0.46	0.50	0.43	ug/l	J
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.52	ug/l	
135-98-8	sec-Butylbenzene	1.4	2.0	0.62	ug/l	J
98-06-6	tert-Butylbenzene	0.96	2.0	0.69	ug/l	J
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	11.2	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	3.4	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	1.8	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.51	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	JC79316-7	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	3.9	1.0	0.65	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	1.3	2.0	0.60	ug/l	J
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [b]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-12
Lab Sample ID: JC79316-7
Matrix: AQ - Ground Water
Method: SW846 8270D BY SIM SW846 3510C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3P73450.D	1	12/13/18 03:09	SA	12/11/18 04:30	OP17214A	E3P3464
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.239	0.095	0.046	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		29-124%
321-60-8	2-Fluorobiphenyl	62%		23-122%
1718-51-0	Terphenyl-d14	45%		22-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-12
Lab Sample ID: JC79316-7
Matrix: AQ - Ground Water
Method: EPA 537M BY ID EPA 537 MOD
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3Q559.D	1	12/18/18 22:49	AFL	12/14/18 08:45	F:OP73036	F:S3Q9
Run #2							

	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	4.87	8.0	2.0	ng/l	J
2706-90-3	Perfluoropentanoic acid	ND	4.0	1.5	ng/l	
307-24-4	Perfluorohexanoic acid	1.31	4.0	1.0	ng/l	J
375-85-9	Perfluoroheptanoic acid	ND	2.0	1.0	ng/l	
335-67-1	Perfluorooctanoic acid	3.41	2.0	1.0	ng/l	
375-95-1	Perfluorononanoic acid	ND	2.0	1.0	ng/l	
335-76-2	Perfluorodecanoic acid	ND	4.0	1.0	ng/l	
2058-94-8	Perfluoroundecanoic acid	ND	4.0	1.0	ng/l	
307-55-1	Perfluorododecanoic acid	ND	4.0	1.5	ng/l	
72629-94-8	Perfluorotridecanoic acid	ND	4.0	1.0	ng/l	
376-06-7	Perfluorotetradecanoic acid	ND	4.0	1.0	ng/l	
375-73-5	Perfluorobutanesulfonic acid	ND	2.0	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	ND	2.0	1.0	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	4.0	1.0	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	6.12	2.0	1.5	ng/l	
335-77-3	Perfluorodecanesulfonic acid	ND	4.0	1.0	ng/l	
754-91-6	PFOSA	ND	4.0	1.0	ng/l	
2355-31-9	MeFOSAA	ND	20	4.0	ng/l	
2991-50-6	EtFOSAA	ND	20	4.0	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	8.0	2.0	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	8.0	2.0	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	54%		30-140%
	13C5-PFPeA	59%		40-140%
	13C5-PFHxA	63%		50-150%
	13C4-PFHpA	66%		50-150%
	13C8-PFOA	74%		50-150%
	13C9-PFNA	73%		50-150%
	13C6-PFDA	64%		50-150%
	13C7-PFUnDA	89%		50-150%

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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	JC79316-7	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	EPA 537M BY ID EPA 537 MOD	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

PFAS List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFDoDA	78%		50-150%
	13C2-PFTeDA	75%		40-150%
	13C3-PFBS	58%		50-150%
	13C3-PFHxS	59%		50-150%
	13C8-PFOS	63%		50-150%
	13C8-FOSA	65%		30-140%
	d3-MeFOSAA	84%		50-150%
	13C2-6:2FTS	91%		50-150%
	13C2-8:2FTS	78%		50-150%

(a) Analysis performed at SGS Orlando, FL.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	JC79316-7	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240806.D	1	12/14/18 02:08	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.098	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.063	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.21	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.076	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		11-166%
877-09-8	Tetrachloro-m-xylene	98%		11-166%
2051-24-3	Decachlorobiphenyl	50%		10-150%
2051-24-3	Decachlorobiphenyl	54%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-10
Lab Sample ID: JC79316-8
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V55871.D	1	12/12/18 17:06	JP	n/a	n/a	V2V2263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	2.3	0.50	0.43	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.55	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
104-51-8	n-Butylbenzene	0.63	2.0	0.52	ug/l	J
135-98-8	sec-Butylbenzene	1.3	2.0	0.62	ug/l	J
98-06-6	tert-Butylbenzene	ND	2.0	0.69	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.63	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.60	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	2.6	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	1.1	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
540-59-0	1,2-Dichloroethene (total)	0.93	1.0	0.51	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.43	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	JC79316-8	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	1.0	0.52	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.82	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.56	ug/l	
98-82-8	Isopropylbenzene	2.3	1.0	0.65	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.66	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.48	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	0.98	ug/l	
103-65-1	n-Propylbenzene	1.9	2.0	0.60	ug/l	J
100-42-5	Styrene	ND	1.0	0.70	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [b]	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-10
Lab Sample ID: JC79316-8
Matrix: AQ - Ground Water
Method: SW846 8270D BY SIM SW846 3510C
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3P73451.D	1	12/13/18 03:28	SA	12/11/18 04:30	OP17214A	E3P3464
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.225	0.10	0.049	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	62%		29-124%
321-60-8	2-Fluorobiphenyl	51%		23-122%
1718-51-0	Terphenyl-d14	36%		22-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-10
Lab Sample ID: JC79316-8
Matrix: AQ - Ground Water
Method: EPA 537M BY ID EPA 537 MOD
Project: Quanta Resources, Lodi Street, Syracuse, NY

Date Sampled: 12/05/18
Date Received: 12/07/18
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2Q25416.D	20	12/21/18 21:07	AFL	12/14/18 08:45	F:OP73036	F:S2Q394
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	150	38	ng/l	
2706-90-3	Perfluoropentanoic acid	ND	77	29	ng/l	
307-24-4	Perfluorohexanoic acid	ND	77	19	ng/l	
375-85-9	Perfluoroheptanoic acid	ND	38	19	ng/l	
335-67-1	Perfluorooctanoic acid [b]	ND	38	19	ng/l	
375-95-1	Perfluorononanoic acid	ND	38	19	ng/l	
335-76-2	Perfluorodecanoic acid	ND	77	19	ng/l	
2058-94-8	Perfluoroundecanoic acid	ND	77	19	ng/l	
307-55-1	Perfluorododecanoic acid	ND	77	29	ng/l	
72629-94-8	Perfluorotridecanoic acid	ND	77	19	ng/l	
376-06-7	Perfluorotetradecanoic acid	ND	77	19	ng/l	
375-73-5	Perfluorobutanesulfonic acid	ND	38	19	ng/l	
355-46-4	Perfluorohexanesulfonic acid	ND	38	19	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	77	19	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	38	29	ng/l	
335-77-3	Perfluorodecanesulfonic acid	ND	77	19	ng/l	
754-91-6	PFOSA	ND	77	19	ng/l	
2355-31-9	MeFOSAA	ND	380	77	ng/l	
2991-50-6	EtFOSAA	ND	380	77	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	150	38	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	150	38	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	99%		30-140%
	13C5-PFPeA	101%		40-140%
	13C5-PFHxA	103%		50-150%
	13C4-PFHpA	104%		50-150%
	13C8-PFOA	110%		50-150%
	13C9-PFNA	110%		50-150%
	13C6-PFDA	115%		50-150%
	13C7-PFUnDA	111%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	JC79316-8	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	EPA 537M BY ID EPA 537 MOD	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

PFAS List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFDoDA	117%		50-150%
	13C2-PFTeDA	124%		40-150%
	13C3-PFBS	97%		50-150%
	13C3-PFHxS	97%		50-150%
	13C8-PFOS	103%		50-150%
	13C8-FOSA	114%		30-140%
	d3-MeFOSAA	107%		50-150%
	13C2-6:2FTS	111%		50-150%
	13C2-8:2FTS	114%		50-150%

(a) Dilution required due to matrix interference. Analysis performed at SGS Orlando, FL.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	JC79316-8	**Date Sampled:**	12/05/18
Matrix:	AQ - Ground Water	**Date Received:**	12/07/18
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Quanta Resources, Lodi Street, Syracuse, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX240807.D	1	12/14/18 02:26	CP	12/13/18 09:00	OP17274	GXX6552
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.24	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.24	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.24	0.12	ug/l	
53469-21-9	Aroclor 1242	ND	0.24	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.24	0.061	ug/l	
11097-69-1	Aroclor 1254	0.28	0.24	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.24	0.073	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		11-166%
877-09-8	Tetrachloro-m-xylene	85%		11-166%
2051-24-3	Decachlorobiphenyl	55%		10-150%
2051-24-3	Decachlorobiphenyl	59%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Chain of Custody (SGS Orlando, FL)

SGS ACCUTEST — CHAIN OF CUSTODY

GW

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #

Bottle Order Control # AC-112913-151

SGS Accutest Quote # PMS_2018_489

SGS Accutest Job # JC79316

Client / Reporting Information	Project Information
Company Name: Plumley Engineering	Project Name: Quanta Resources
Street Address: 8232 Loop Rd	Street: Lodi St
City: Baldwinsville State: NY Zip: 13027	City: Syracuse State:
Project Contact: Matt Martin E-mail:	Project #: 2015127
Phone #: 315 638 8587 Fax #:	Client Purchase Order #: 2015127
Sampler(s) Name(s): Matt Martin Derek Hudson Phone #:	Project Manager: Dale Vollmer

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Preservation: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOC EPA 524 TCL MA	PCB (Low Level)	PFAS (EPA 537 Mod)	1,4-Dioxane (8270D)	LAB USE ONLY
	MW-9		12/5/18	1230	MH	GW										X	X	X	X	
1	MW-9 MS			1230												X		X		
	MW-9 MSD			1230												X		X		E106
2	Equipment Blank			1250														X		SUM
3	MW-6			13:01												X	X			V1132
4	MW-5			13:25												X	X			
5	MW-2			13:47												X	X			
6	MW-1-D			1400												X	X			
7	MW-12			14:50												X	X	X	X	
8	MW-10			16:40												X	X	X	X	

Turnaround Time (Business days)

- [X] Std. 5 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:

INITIAL ASSESSMENT 4 A.M.

LABEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [X] NYASP Category B
- [ ] State Forms
- [X] EDD Format NYSDEC4
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary

NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

PCB level - 0.09 mg/L needed

1,4 Dioxane - 0.28 ug/L needed

PFAS - 2 ng/L needed

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		12/6/18 14:40	1	2	12/6/18 17:00	2 FX
3	Relinquished by Sampler: FX	12/7/18 10:00	3	4	Date Time:	4
5	Relinquished by:	Date Time:	6	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [ ] On Ice [ ] Cooler Temp.

1.6 c-up
2.1 cm

Form:SM088-01CRev.Date:9/13/16

JC79316: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: JC79316 **Client:** _____ **Project:** _____

Date / Time Received: 12/7/2018 10:00:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6); Cooler 2: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.3); Cooler 2: (1.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Job Change Order: JC79316

Requested Date:	12/11/2018	**Received Date:**	12/7/2018
Account Name:	Plumley Environmental Engineers	**Due Date:**	12/14/2018
Project Description:	Quanta Resources, Lodi Street, Syracuse, NY	**Deliverable:**	NYASPB
C/O Initiated By:	TF **PM:** TF	**TAT (Days):**	14

==========

Sample #: JC79316-ALL

Dept:

TAT: 14

Change:
Please change to 14 Day TAT. Due 12/21/18.

==========

Above Changes Per: Matthew Martin **Date/Time:** 12/11/2018 11:43:47 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page 1 of 1

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: JC79316

Client / Reporting Information

Company Name:
Street Address:
City State Zip
Project Contact: Shelin.Williams@sgs.com E-mail:
Phone #:
Sampler(s) Name(s): MM Phone:

Project Information

Project Name: Quanta Resources, Lodi Street, Syracuse, NY
Street:
City State
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip
Attention:

Requested Analysis

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB-Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	5035	LCID537NY21	LAB USE ONLY
1	MW-9		12/5/18	12:30:00 PM	MM	AQ											X	
1D	MW-9 MSD		12/5/18	12:30:00 PM	MM	AQ											X	
1S	MW-9 MS		12/5/18	12:30:00 PM	MM	AQ											X	
2	EQUIPMENT BLANK		12/5/18	12:50:00 PM	MM	AQ											X	
7	MW-12		12/5/18	2:50:00 PM	MM	AQ											X	
8	MW-10		12/5/18	4:40:00 PM	MM	AQ											X	

Turnaround Time (Business days)

Approved By (SGS PM) / Date:

- [ ] Standard 10 Business Days
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] Other 7

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULL T1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other NYASPB

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1		12/11/18 17:40	Fed Ex	2		2 12/12/18 930
3	Relinquished by:	Date / Time:	Received By: 3	Relinquished By: 4	Date / Time:	Received By: 4
5	Relinquished by:	Date / Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not Intact	Preserved where applicable ☐ Absent	On Ice ☐ Therm ID:	Cooler Temp. °C

3.8

JC79316.xls
Rev. Date: 4/10/18

JC79316: Chain of Custody
Page 1 of 3
SGS Orlando, FL

SGS Sample Receipt Summary

Job Number: JC79316 **Client:** ALNJ **Project:** QUANTA RESOURCES

Date / Time Received: 12/12/2018 9:30:00 AM **Delivery Method:** FED EX **Airbill #'s:** 1001891771660003281100461413714308

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (3.8);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SHAYLAP Date: 12/12/2018 9:30:00 A Reviewer: SP Date: 12/12/2018

Job Change Order: JC79316

Requested Date:	12/11/2018	**Received Date:**	12/7/2018
Account Name:	Plumley Environmental Engineers	**Due Date:**	12/14/2018
Project Description:	Quanta Resources, Lodi Street, Syracuse, NY	**Deliverable:**	NYASPB
C/O Initiated By:	TF **PM:** TF	**TAT (Days):**	14

==========

Sample #: JC79316-ALL

Dept:

TAT: 14

Change:
Please change to 14 Day TAT. Due 12/21/18.

==========

Above Changes Per: Matthew Martin **Date/Time:** 12/11/2018 11:45:51 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1