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VIA ELECTRONIC MAIL

November 13, 2019

Mr. Aaron Fischer
Remedial Bureau B
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway – 12th Floor
Albany, New York 12233-7016

**Subject: Monthly Progress Report
GE Main Plant (Site No. 4-47-004)
Schenectady, New York**

Dear Aaron:

Pursuant to Section III of the Order on Consent and Administrative Settlement (Index No. A4-0562-0806) regarding General Electric Company's (GE's) Main Plant in Schenectady, New York, please find attached the Monthly Progress Report covering November 2019. As always, please call me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tom D. Antonoff'.

Tom D. Antonoff
Senior Project Manager

Attachment

cc: Stephanie Selmer, NYSDOH (via email)
Ben Conlon, Esq., NYSDEC (via email)
Damian Foti, GE (via email)
Eric Merrifield, GE (via email)
Angelica Todd, GE (via email)
Matt Sausville, Ramboll (via email)
Paul Hare, Ramboll (via email)

MONTHLY PROGRESS REPORT

Order on Consent and Administrative Settlement (Index No. A4-0562-0806) GE Main Plant (Site No. 4-47-004) Schenectady, New York

Month Covered: October 2019

I. Actions Taken During Month:

- The Monthly Progress Report (MPR) was submitted to the New York State Departments of Environmental Conservation and Health (NYSDEC and NYSDOH, respectively) on or before October 15, 2019 (or the next business day if on a weekend or holiday).
- O'Brien & Gere Engineers, Inc. (OBG, a Ramboll company) continued operation, maintenance and monitoring (OM&M) of the Seep Collection and Treatment System (SCTS) throughout the month. OBG performed weekly sampling events on October 3, 10, 17, 24 and 30, 2019. System information was collected and recorded during each site visit on Operations Log Sheets, which are attached.
- OBG completed the installation of passive diffusion bags (PDB) holders as part of the annual groundwater sampling event. PDBs were installed in wells on October 2, 23, 25 and 30, 2019.
- OBG began the annual groundwater sampling event on October 30, 2019.
- OBG completed the second semi-annual bioremediation performance monitoring event from October 24 through October 29, 2019.
- OBG completed the second semi-annual DM-405F performance monitoring event on October 29, 2019.
- OBG completed the Zone 2 and Zone 3 Shallow Groundwater Treatment System (SGTS) injections at the designated "B" well locations from October 22 through November 1, 2019. The SGTS injection operations logs are attached.
- OBG continued preparation of (a) the Annual Groundwater and Surface Water Monitoring Report and (b) the Annual Operation, Maintenance and Monitoring Report.
- OBG continued preparation of the annual Agronomic Cover System 2019 inspection report.
- GE continued working with NYSDEC's real estate group to draft the site's environmental covenant. Site plan pending approval from NYSDEC real estate group.

II. Analytical and Other Results Obtained During Month:

- Weekly analytical results are attached for the samples collected from the SCTS on October 3, 10, 17, 24 and 30, 2019.

- Third quarter Polychlorinated Biphenyl Minimization Work Plan analytical results from the September 19, 2019 sampling event are attached.

III. Deliverables Submitted or Approved During Month:

- None in October 2019.

IV. Actions Scheduled for Following Month:

- GE will submit this MPR to NYSDEC and NYSDOH on or before November 15, 2019 (or the following business day if on a weekend or holiday).
- OBG will continue OM&M of the SCTS, including weekly effluent sampling.
- OBG will complete the fourth quarter soil and asphalt cover inspections.
- OBG will complete the annual groundwater sampling event.
- OBG expects to perform the fourth quarter SGTS performance monitoring event in early December 2019.
- OBG will complete and submit the Annual Groundwater and Surface Water Monitoring Report to NYSDEC and NYSDOH.
- OBG will continue preparation of the Annual OM&M Report.

V. Anticipated Delays and Mitigative Measures:

- None in October 2019.

VI. Proposed or Approved Modifications:

- None in October 2019.

VII. Citizen Participation Activities:

- None in October 2019.

Attachments

Operations Logs for Seep Collection & Treatment System

OPERATIONS LOG SHEET
 ENHANCED SEEP COLLECTION SYSTEM
 GENERAL ELECTRIC MAIN PLANT
 SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/1/19	10/2/2019	10/3/2019	10/4/2019
				TIME:	1400	1400	1400	1400
				INITIALS:	DS	DS	DS	DS
SEEP COLLECTION PUMP STATIONS (SEEP 1 - 4, SEEP 5 AND SEEP 6)								
SEEP 1 - 4 PUMP RUN	Y/N	P-100A	SEEP 1-4 P-STATION PUMP		Y	Y	Y	Y
SEEP 5 PUMP RUN	Y/N	P-100B	SEEP 5 P-STATION PUMP		Y	Y	Y	Y
SEEP 6 PUMP RUN	Y/N	P-100C	SEEP 6 P-STATION PUMP		N	N	N	N
INFLUENT TANK (T-101)								
FLOW METER - 100A (FM-A)	GPM	FQIT-100A	S1-4 IN-FLOW		15.36	15.43	15.30	14.22
FLOW METER - 100B (FM-B)	GPM	FQIT-100B	S5 IN-FLOW		19.39	19.34	25.42	18.72
FLOW METER - 100C (FM-C)	GPM	FQIT-100C	S6 IN-FLOW		-	-	19.50	-
FLOW METER - 101	GPM	FQIT-101	INF TK OUT-FLOW		24.49	24.37	26.47	26.11
FLOW METER - 100A	TOTAL	FQIT-100A	S1-4 IN-FLOW		13,586,300	13,588,100	13,607,800	13,628,200
FLOW METER - 100B	TOTAL	FQIT-100B	S5 IN-FLOW		1,281,800	1,293,300	1,303,400	1,314,100
FLOW METER - 100C	TOTAL	FQIT-100C	S6 IN-FLOW		642,044	640,044	640,044	640,044
FLOW METER - 101	TOTAL	FQIT-101	INF TK OUT-FLOW		3,283,100	3,316,300	3,346,800	3,379,500
BLOWER RUNNING	Y/N	B-101	INF TK BLOWER		Y	Y	Y	Y
BLOWER PRESSURE	PSI	PI-101	INF TK BLOWER PRESS.		3	3	3	3
VFD RATE	Hz	B-101	INF TK BLOWER VFD		49.97	49.93	50.04	49.96
INF Ph	SU	AIT-101	pH FOR INF. WATER		7.50	7.40	7.39	7.70
pH Probe checked	Y/N	AIT-101	pH Probe at influent tank		Y	Y	Y	Y
pH Probe clean (1X/week min)	Y/N	AIT-101	pH Probe at influent tank		N	N	Y	N
INF TANK LEVEL	inwc	T-101	LEVEL TRANSMIT.		25.17	30.49	30.72	28.03
RECIRC PUMP RUNNING	Y/N	P-102	IN TK RECIRC PUMP		Y	Y	Y	Y
VFD RATE	Hz	P-102	IN TK RECIRC VFD		24.96	24.96	24.98	24.92
CAUSTIC PUMP RUNNING	Y/N	P-201	IN TK CAUSTIC ADD		Y	Y	Y	Y
CAUSTIC TANK LEVEL	L	T-201	IN TK CAUSTIC ADD		52 gal 27.5	49 gal 25.75	46 gal 24.5	45 gal 24"
CAUSTIC USAGE	GAL	T-201	CAUSTIC USAGE		0.3	3	3	1
CAUSTIC USAGE	TOT	T-201	CAUSTIC USAGE		0	0	0	0
CLARIFIER SYSTEM (T-103B)								
FLASH MIX TANK MIXER RUN.	Y/N	M-102	COAG MIXER		Y	Y	Y	Y
COAGULANT PUMP RUNNING	Y/N	P-202	COAG PUMP		Y	Y	Y	Y
COAGULANT LEVEL	% Full	T-202	COAG TANK		52 gal 27.75	51 gal 27.5	49 gal 26.75	48 gal 26.4
COAGULANT DOSE RATE	mg/l	FE-202	COAG FLOW TO TANK		16	16	16	16
FLOC TANK MIXER RUNNING	Y/N	M-103A	FLOC MIXER		Y	Y	Y	Y
FLOCCULANT PUMP RUNNING	Y/N	P-203	FLOC PUMP		Y	Y	Y	Y
FLOC LEVEL	% Full	T-203	FLOC TANK LEVEL		8.5 gal 16.4	8.4 gal 16.16	8.4 gal 16.14	8.3 gal 16.1
FLOCCULANT DOSE RATE	GPM	FE-203	DILUTED FLOC TO FLOC MIX TK		1.00	1.00	1.00	1.00
CLARIFIER RAKE MIXER RUN.	Y/N	M-103B	CLARIFIER MIXER		Y	Y	Y	Y
CLARIFIER SLUDGE PUMP RUN.	Y/N	P-103	SLUDGE PUMP TO GEOTUBE		Y	Y	Y	Y
AIR COMPRESSOR RUNNING	Y/N	C-302	SLUDGE PUMP POWER		Y	Y	Y	Y

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/1/19	10/2/2019	10/3/2019	10/4/2019
				TIME:	1400	1400	1400	1400
				INITIALS:	DS	DS	DS	DS
AIR COMPRESSOR PRESSURE	PSI	PI-302	AIR COMP. PRESSURE		-	-	-	-
CLARIFIER EFF TANK LEVEL	FEET	T-104	GRAVITY TANK POST CLAR.		2.5'	3'	3'	3'
CLARIFIER EFF PUMP A RUN	Y/N	P-104A	PUMP TO FILTRATION		N	Y	Y	Y
VFD RATE	Hz	P-104A	PUMP RATE TO FILTRATION		-	35.03	34.96	35.02
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104A	PUMP PRESSURE TO FILT.		-	35.03 28	27	28
CLARIFIER EFF PUMP B RUN	Y/N	P-104B	PUMP TO FILTRATION		Y	N	N	N
VFD RATE	Hz	P-104B	PUMP RATE TO FILTRATION		34.99	-	-	-
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104B	PUMP PRESSURE TO FILT.		27	-	-	-
GEOTUBE SYSTEM								
GEOTUBE CONTAINER 1 LEVEL	EST.	G-101	GEOTUBE DEWATERING BOX		85	85	85	90
GEOTUBE CONTAINER 2 LEVEL	EST.	G-102	GEOTUBE DEWATERING BOX		15	15	15	15
GEOTUBE DISPOSAL	Y/N	G-101/G-102	GEOTUBE DEWATERING BOX		N	N	N	N
GEOTUBE DISPOSAL QTY	TON	G-101/G-102	WEIGHT OF MATERIAL DISPOSED		-	-	-	-
POLYMER PUMP RUNNING	Y/N	P-205	POLY ADD TO SLUDGE		Y	Y	Y	Y
POLYMER DOSE	GPM	FE-205	POLY FLOW TO SLUDGE		0.503	0.503	0.503	0.422
POLYMER TANK LEVEL	% Full	T-205	POLYMER LEVEL IN TANK		10"	9"	8"	15"
FILTRATION SYSTEM								
SAND FILTER A IN-USE	Y/N	TA-105A	SAND FILTER		Y	Y	Y	Y
SAND FILTER A BACKWASH	Y/N	TA-105A	SAND FILTER		N	Y	N	Y
INLET PRESSURE	PSI	PI-105A/PI-703	INLET PRESSURE TO SAND		21	22	20	23
OUTLET PRESSURE	PSI	PDSH-105A	OUTLET PRESS. TO BAG FIL.		10	10	10 11	10
PRESSURE DIFFERENTIAL	PSI	PDSH-105A	PRESSURE DIFFERENTIAL		11	12	10 9	13
SAND FILTER B IN-USE	Y/N	TA-105B	SAND FILTER		Y	Y	Y	Y
SAND FILTER B BACKWASH	Y/N	TA-105B	SAND FILTER		N	Y	N	Y
INLET PRESSURE	PSI	PI-105B/PI-703	INLET PRESSURE TO SAND		22	22	20	23
OUTLET PRESSURE	PSI	PDSH-105B	OUTLET PRESS. TO BAG FIL.		11	10	10	10
PRESSURE DIFFERENTIAL	PSI	PDSH-105B	PRESSURE DIFFERENTIAL		11	12	10	13
BAG FILTER 701 IN-USE	Y/N	F-701A	10, 5 and 1 MICRON BAG FILTER		N	Y	Y	Y
INLET PRESSURE	PSI	PI-701A	INLET PRESSURE IN BF			10	11	11
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF			9	11	10
PRESSURE DIFFERENTIAL	PSI	PDSH-701A	PRESSURE DIFFERENTIAL			1	0	1
BAG CHANGES	Y/N	F-701A	BAG FILTER			NEW	N	N
BAG FILTER 702 IN-USE	Y/N	F-702A	10, 5 and 1 MICRON BAG FILTER		N	Y	Y	Y
INLET PRESSURE	PSI	PI-702A	INLET PRESSURE IN BF			10	10	10
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF			9	9	10
PRESSURE DIFFERENTIAL	PSI	PDSH-702A	PRESSURE DIFFERENTIAL			1	1	0
BAG CHANGE	Y/N	F-702A	BAG FILTER			NEW	N	N

① 10/3/19 DS

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/1/19	10/2/2019	10/03/2019	10/04/2019
				TIME:	1400	1400	1400	1400
				INITIALS:	DS	DS	DS	DS
CARBON FILTER 1 IN-USE	Y/N	TA-106A	CARBON FILTER		Y	Y	Y	Y
CARBON FILTER 1 BACKWASH	Y/N	TA-106A	CARBON FILTER		N	N	N	N
INLET PRESSURE	PSI	PI-106A	INLET PRESSURE FROM BF		11	12.9	11	10
OUTLET PRESSURE	PSI	PI-106B	OUTLET PRESS. TO EFF-TK		11	9	10	10
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	3	1	0
CARBON FILTER 2 IN-USE	Y/N	TA-106B	CARBON FILTER		Y	Y	Y	Y
CARBON FILTER 2 BACKWASH	Y/N	TA-106B	CARBON FILTER		N	N	N	N
INLET PRESSURE	PSI	PI-106B	INLET PRESSURE FROM BF		12	9	9	10
OUTLET PRESSURE	PSI		OUTLET PRESS. TO EFF-TK		12	9	9	10
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	0
BACKWASH PUMP A RUN	Y/N	P-305A	BACKWASH PUMP TO FILT.		N	N	N	N
BACKWASH PRESSURE	PSI	PI-305A	BACKWASH PRESSURE		-	-	-	-
BACKWASH PUMP B RUN	Y/N	P-305B	BACKWASH PUMP TO FILT.		N	Y	N	Y
BACKWASH PRESSURE	PSI	PI-305B	BACKWASH PRESSURE		-	93	-	93
EFFLUENT AND FINAL HOLDING TANK (T-107 AND T-401)								
EFFLUENT FLOW METER	GPM	FQIT-107	FLOW RATE FROM FILTERS		52.92	46.34	45.56	45.77
EFF. FLOW METER TOTAL	TOT.	FQIT-107	TOTAL FLOW		2,063,700	2,089,600	2,112,700	2,137,700
EFFLUENT TANK LEVEL	inwc	T-107	TANK LEVEL		91.30	99.94	99.16	50.51
pH METER	SU	AIT-107	EFF. pH		7.90	7.91	7.86	7.92
DISSOLVED OXYGEN (DOM-107)	DO	AIT-107A	EFF.DO READING		-	-	-	-
TURBIDITY (TBM-107)	NTU	AIT-107B	EFF. TURBIDITY		0.42	0.42	0.43	0.43
FINAL HOLDING TANK LEVEL	FEET	T-401	FH TK LEVEL		24 1/2"	39"	30"	14 1/2"
IRRIG. PUMP RUNNING	Y/N	P-401	IRRIGATION SYSTEM		N	N	N	N
VFD RATE	Hz	P-401	IRRIGATION SYSTEM		-	-	-	-
GRAVITY OUTFALL IN-USE	Y/N	OF-101	OUTFALL TO POENTIC KILL		Y	Y	Y	Y
BUILDING SYSTEM COMPONENTS								
EXHAUST FAN NW IN-USE	Y/N	EF-1	EXHAUST FANS		N	N	N	N
EXHAUST FAN NE IN-USE	Y/N	EF-2	EXHAUST FANS		N	N	N	N
BUILDING HEATERS IN-USE	Y/N	UH-1-8	HEATERS		Y	Y	Y	Y
BUILDING TEMPERATURE	DEG. F		BLDG. TEMP		75°	75	75	75
OVERHEAD DOOR SW OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
OVERHEAD DOOR NE OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
OVERHEAD DOOR SE OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
BLDG CONT SYS OPERATIONAL	Y/N		REMOTE TELEMETRY SYS		Y	Y	Y	Y
GENERAL COMMENTS								

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/7/2019	10/8/2019	10/9/2019	10/10/19
				TIME:	1400	1400	1400	1400
				INITIALS:	DS	DS	DS	DS
SEEP COLLECTION PUMP STATIONS (SEEP 1 - 4, SEEP 5 AND SEEP 6)								
SEEP 1 - 4 PUMP RUN	Y/N	P-100A	SEEP 1-4 P-STATION PUMP		Y	Y	Y	Y
SEEP 5 PUMP RUN	Y/N	P-100B	SEEP 5 P-STATION PUMP		Y	Y	Y	Y
SEEP 6 PUMP RUN	Y/N	P-100C	SEEP 6 P-STATION PUMP		N	N	N	N
INFLUENT TANK (T-101)								
FLOW METER - 100A (FM-A)	GPM	FQIT-100A	S1-4 IN-FLOW		13.34	12.62	17.21	15.81
FLOW METER - 100B (FM-B)	GPM	FQIT-100B	S5 IN-FLOW		18.41	18.37	18.55	17.91
FLOW METER - 100C (FM-C)	GPM	FQIT-100C	S6 IN-FLOW		—	—	25.80	—
FLOW METER - 101	GPM	FQIT-101	INF TK OUT-FLOW		21.13	26.16	13.42	23.57
FLOW METER - 100A	TOTAL	FQIT-100A	S1-4 IN-FLOW		13,686,400	13,705,400	13,719,500	13,740,800
FLOW METER - 100B	TOTAL	FQIT-100B	S5 IN-FLOW		1,345,000	1,336,500	1,367,300	1,376,300
FLOW METER - 100C	TOTAL	FQIT-100C	S6 IN-FLOW		—	—	640,044	640,044
FLOW METER - 101	TOTAL	FQIT-101	INF TK OUT-FLOW		3,467,400	3,500,200	3,525,500	3,554,800
BLOWER RUNNING	Y/N	B-101	INF TK BLOWER		Y	Y	Y	Y
BLOWER PRESSURE	PSI	PI-101	INF TK BLOWER PRESS.		3	4	3	3
VFD RATE	Hz	B-101	INF TK BLOWER VFD		49.97	49.99	50.03	49.98
INF Ph	SU	AIT-101	pH FOR INF. WATER		7.48	7.50	7.82	7.49
pH Probe checked	Y/N	AIT-101	pH Probe at influent tank		Y	Y	Y	Y
pH Probe clean (1X/week min)	Y/N	AIT-101	pH Probe at influent tank		N	N	N	N
INF TANK LEVEL	inwc	T-101	LEVEL TRANSMIT.		32.10	54.65	25.42	47.80
RECIRC PUMP RUNNING	Y/N	P-102	IN TK RECIRC PUMP		Y	Y	Y	Y
VFD RATE	Hz	P-102	IN TK RECIRC VFD		24.96	24.91	24.98	24.91
CAUSTIC PUMP RUNNING	Y/N	P-201	IN TK CAUSTIC ADD		Y	Y	Y	Y
CAUSTIC TANK LEVEL	L	T-201	IN TK CAUSTIC ADD		38 gal, 20 1/2"	37 gal 19 1/2"	35 gal 18 1/2"	33 gal 17 1/2"
CAUSTIC USAGE	GAL	T-201	CAUSTIC USAGE		10 gal	1 gal.	2 gal	2
CAUSTIC USAGE	TOT	T-201	CAUSTIC USAGE		0	0	0	0
CLARIFIER SYSTEM (T-103B)								
FLASH MIX TANK MIXER RUN.	Y/N	M-102	COAG MIXER		Y	Y	Y	Y
COAGULANT PUMP RUNNING	Y/N	P-202	COAG PUMP		Y	Y	Y	Y
COAGULANT LEVEL	% Full	T-202	COAG TANK		46 gal 24.75"	45 gal 24"	44 gal 23 3/4"	43 gal 23 1/2"
COAGULANT DOSE RATE	mg/l	FE-202	COAG FLOW TO TANK		16	16	16	16
FLOC TANK MIXER RUNNING	Y/N	M-103A	FLOC MIXER		Y	Y	Y	Y
FLOCCULANT PUMP RUNNING	Y/N	P-203	FLOC PUMP		Y	Y	Y	Y
FLOC LEVEL	% Full	T-203	FLOC TANK LEVEL		8.3 gal 16"	8.2 gal 15 3/4"	8.8 gal 17"	8.7 gal 16 7/8"
FLOCCULANT DOSE RATE	GPM	FE-203	DILUTED FLOC TO FLOC MIX TK		1.00	1.00	1.00	1.00
CLARIFIER RAKE MIXER RUN.	Y/N	M-103B	CLARIFIER MIXER		Y	Y	Y	Y
CLARIFIER SLUDGE PUMP RUN.	Y/N	P-103	SLUDGE PUMP TO GEOTUBE		Y	Y	Y	Y
AIR COMPRESSOR RUNNING	Y/N	C-302	SLUDGE PUMP POWER		Y	Y	Y	Y

OPERATIONS LOG SHEET
 ENHANCED SEEP COLLECTION SYSTEM
 GENERAL ELECTRIC MAIN PLANT
 SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/8/2019	10/8/19	10/8/19	10/10/19
				TIME:	1400	1400	1400	
				INITIALS:	DS	DS	DS	
AIR COMPRESSOR PRESSURE	PSI	PI-302	AIR COMP. PRESSURE		-	-	-	-
CLARIFIER EFF TANK LEVEL	FEET	T-104	GRAVITY TANK POST CLAR.		2	2 1/2	3	3
CLARIFIER EFF PUMP A RUN	Y/N	P-104A	PUMP TO FILTRATION		N	N	N	N
VFD RATE	Hz	P-104A	PUMP RATE TO FILTRATION		-	-	-	-
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104A	PUMP PRESSURE TO FILT.		-	-	-	-
CLARIFIER EFF PUMP B RUN	Y/N	P-104B	PUMP TO FILTRATION		Y	Y	Y	Y
VFD RATE	Hz	P-104B	PUMP RATE TO FILTRATION		34.99	35.01	35.00	34.98
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104B	PUMP PRESSURE TO FILT.		31	34	31	38
GEOTUBE SYSTEM								
GEOTUBE CONTAINER 1 LEVEL	EST.	G-101	GEOTUBE DEWATERING BOX		80	85	85	85
GEOTUBE CONTAINER 2 LEVEL	EST.	G-102	GEOTUBE DEWATERING BOX		15	15	15	15
GEOTUBE DISPOSAL	Y/N	G-101/G-102	GEOTUBE DEWATERING BOX		N	N	N	N
GEOTUBE DISPOSAL QTY	TON	G-101/G-102	WEIGHT OF MATERIAL DISPOSED		-	-	-	-
POLYMER PUMP RUNNING	Y/N	P-205	POLY ADD TO SLUDGE		Y	Y	Y	Y
POLYMER DOSE	GPM	FE-205	POLY FLOW TO SLUDGE		0.422	0.422	0.422	0.422
POLYMER TANK LEVEL	% Full	T-205	POLYMER LEVEL IN TANK		14"	12"	11"	10"
FILTRATION SYSTEM								
SAND FILTER A IN-USE	Y/N	TA-105A	SAND FILTER		Y	Y	Y	Y
SAND FILTER A BACKWASH	Y/N	TA-105A	SAND FILTER		N	Y	N	Y
INLET PRESSURE	PSI	PI-105A/PI-703	INLET PRESSURE TO SAND		25	28	26	38
OUTLET PRESSURE	PSI	PDSH-105A	OUTLET PRESS. TO BAG FIL.		12	12	12	12
PRESSURE DIFFERENTIAL	PSI	PDSH-105A	PRESSURE DIFFERENTIAL		13	16	14	16
SAND FILTER B IN-USE	Y/N	TA-105B	SAND FILTER		Y	Y	Y	Y
SAND FILTER B BACKWASH	Y/N	TA-105B	SAND FILTER		25	Y	N	Y
INLET PRESSURE	PSI	PI-105B/PI-703	INLET PRESSURE TO SAND		25	28	26	28
OUTLET PRESSURE	PSI	PDSH-105B	OUTLET PRESS. TO BAG FIL.		13	12	12	12
PRESSURE DIFFERENTIAL	PSI	PDSH-105B	PRESSURE DIFFERENTIAL		12	16	14	16
BAG FILTER 701 IN-USE	Y/N	F-701A	10, 5 and 1 MICRON BAG FILTER		Y	Y	Y	Y
INLET PRESSURE	PSI	PI-701A	INLET PRESSURE IN BF		13	12	12	12
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		9	10	12	12
PRESSURE DIFFERENTIAL	PSI	PDSH-701A	PRESSURE DIFFERENTIAL		4	3	0	0
BAG CHANGES	Y/N	F-701A	BAG FILTER		N	N	N	N
BAG FILTER 702 IN-USE	Y/N	F-702A	10, 5 and 1 MICRON BAG FILTER		Y	Y	Y	Y
INLET PRESSURE	PSI	PI-702A	INLET PRESSURE IN BF		13	12	12	12
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		9	10	12	12
PRESSURE DIFFERENTIAL	PSI	PDSH-702A	PRESSURE DIFFERENTIAL		4	3	0	0
BAG CHANGE	Y/N	F-702A	BAG FILTER		N	N	N	N

**OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK**

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/7/2019	10/8/19	10/9/19	10/10/19
				TIME:	1400	1400	1500	1400
				INITIALS:	DS	DS	DS	DS
CARBON FILTER 1 IN-USE	Y/N	TA-106A	CARBON FILTER		Y	Y	Y	Y
CARBON FILTER 1 BACKWASH	Y/N	TA-106A	CARBON FILTER		N	N	N	N
INLET PRESSURE	PSI	PI-106A	INLET PRESSURE FROM BF		9	10	12	12
OUTLET PRESSURE	PSI	PI-106B	OUTLET PRESS. TO EFF-TK		9	10	12	11
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	1
CARBON FILTER 2 IN-USE	Y/N	TA-106B	CARBON FILTER		Y	Y	Y	Y
CARBON FILTER 2 BACKWASH	Y/N	TA-106B	CARBON FILTER		N	N	N	N
INLET PRESSURE	PSI	PI-106B	INLET PRESSURE FROM BF		9	10	12	12
OUTLET PRESSURE	PSI		OUTLET PRESS. TO EFF-TK		9	10	12	11
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	1
BACKWASH PUMP A RUN	Y/N	P-305A	BACKWASH PUMP TO FILT.		N	N	N	N
BACKWASH PRESSURE	PSI	PI-305A	BACKWASH PRESSURE		-	-	-	-
BACKWASH PUMP B RUN	Y/N	P-305B	BACKWASH PUMP TO FILT.		N	Y	N	N
BACKWASH PRESSURE	PSI	PI-305B	BACKWASH PRESSURE		-	93	-	-
EFFLUENT AND FINAL HOLDING TANK (T-107 AND T-401)								
EFFLUENT FLOW METER	GPM	FQIT-107	FLOW RATE FROM FILTERS		48.24	51.51	49.55	49.08
EFF. FLOW METER TOTAL	TOT.	FQIT-107	TOTAL FLOW		2,205,900	2,231,200	2,257,000	2,273,800
EFFLUENT TANK LEVEL	inwc	T-107	TANK LEVEL		99.61	103.56	99.91	76.85
pH METER	SU	AIT-107	EFF. pH		7.94	7.97	7.90	7.97
DISSOLVED OXYGEN (DOM-107)	DO	AIT-107A	EFF. DO READING		-	-	-	-
TURBIDITY (TBM-107)	NTU	AIT-107B	EFF. TURBIDITY		0.43	0.43	0.43	0.43
FINAL HOLDING TANK LEVEL	FEET	T-401	FH TK LEVEL		28"	3'	3'	1.5'
IRRIG. PUMP RUNNING	Y/N	P-401	IRRIGATION SYSTEM		N	N	N	N
VFD RATE	Hz	P-401	IRRIGATION SYSTEM		-	-	#-	-
GRAVITY OUTFALL IN-USE	Y/N	OF-101	OUTFALL TO POENTIC KILL		Y	Y	Y	Y
BUILDING SYSTEM COMPONENTS								
EXHAUST FAN NW IN-USE	Y/N	EF-1	EXHAUST FANS		N	N	N	N
EXHAUST FAN NE IN-USE	Y/N	EF-2	EXHAUST FANS		N	N	N	N
BUILDING HEATERS IN-USE	Y/N	UH-1-8	HEATERS		Y	Y	Y	Y
BUILDING TEMPERATURE	DEG. F		BLDG. TEMP		75°	75°	75°	75
OVERHEAD DOOR SW OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
OVERHEAD DOOR NE OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
OVERHEAD DOOR SE OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
BLDG CONT SYS OPERATIONAL	Y/N		REMOTE TELEMETRY SYS		Y	Y	Y	Y
GENERAL COMMENTS								

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/11/2019	10/14/19	10/16/19	10/17/19
				TIME:	1400	1400	1636	1200
				INITIALS:	DS	TS	TS	TS
SEEP COLLECTION PUMP STATIONS (SEEP 1 - 4, SEEP 5 AND SEEP 6)								
SEEP 1 - 4 PUMP RUN	Y/N	P-100A	SEEP 1-4 P-STATION PUMP		Y	yes	yes	yes
SEEP 5 PUMP RUN	Y/N	P-100B	SEEP 5 P-STATION PUMP		Y	yes	yes	yes
SEEP 6 PUMP RUN	Y/N	P-100C	SEEP 6 P-STATION PUMP		N	NO	NO	yes NO *
INFLUENT TANK (T-101)								
FLOW METER - 100A (FM-A)	GPM	FQIT-100A	S1-4 IN-FLOW		16.52	19.2	18.5	19.0
FLOW METER - 100B (FM-B)	GPM	FQIT-100B	S5 IN-FLOW		18.44	18.15	30.4	38.7
FLOW METER - 100C (FM-C)	GPM	FQIT-100C	S6 IN-FLOW		—	—	—	—
FLOW METER - 101	GPM	FQIT-101	INF TK OUT-FLOW		26.16	28.24	26.4	30.00
FLOW METER - 100A	TOTAL	FQIT-100A	S1-4 IN-FLOW		13,761,200	13,819,383	13,861,873	13,882,025
FLOW METER - 100B	TOTAL	FQIT-100B	S5 IN-FLOW		1,386,880	1,417,502	1,432,663	1,445,322
FLOW METER - 100C	TOTAL	FQIT-100C	S6 IN-FLOW		640,044	640,044	640,044	640,044
FLOW METER - 101	TOTAL	FQIT-101	INF TK OUT-FLOW		3,588,000	3,679,272	3,741,622	3,773,498
BLOWER RUNNING	Y/N	B-101	INF TK BLOWER		Y	yes	yes	yes
BLOWER PRESSURE	PSI	PI-101	INF TK BLOWER PRESS.		4	5	5	5psi
VFD RATE	Hz	B-101	INF TK BLOWER VFD		49.99	50	50	50Hz
INF Ph	SU	AIT-101	pH FOR INF. WATER		7.59	7.56	7.86	7.47
pH Probe checked	Y/N	AIT-101	pH Probe at influent tank		Y	yes	yes	yes
pH Probe clean (1X/week min)	Y/N	AIT-101	pH Probe at influent tank		Y	yes	yes	yes
INF TANK LEVEL	inwc	T-101	LEVEL TRANSMIT.		61.91	53.30	36.62	72.36
RECIRC PUMP RUNNING	Y/N	P-102	IN TK RECIRC PUMP		Y	yes	yes	yes
VFD RATE	Hz	P-102	IN TK RECIRC VFD		24.92	25Hz	25Hz	25Hz
CAUSTIC PUMP RUNNING	Y/N	P-201	IN TK CAUSTIC ADD		Y	yes	yes	yes
CAUSTIC TANK LEVEL	gal	T-201	IN TK CAUSTIC ADD		57gal/30"	54/28"	53gal/28"	52gal/27 1/2"
CAUSTIC USAGE	GAL	T-201	CAUSTIC USAGE		1gal	3gal	1gal	1gal
CAUSTIC USAGE	TOT	T-201	CAUSTIC USAGE Added		35gal	0	0	0
CLARIFIER SYSTEM (T-103B)								
FLASH MIX TANK MIXER RUN.	Y/N	M-102	COAG MIXER		Y	yes	yes	yes
COAGULANT PUMP RUNNING	Y/N	P-202	COAG PUMP		Y	yes	yes	yes
COAGULANT LEVEL	% Full	T-202	COAG TANK		41gal/22 1/2"	70/20 1/2"	37gal/20"	37gal/19"
COAGULANT DOSE RATE	mg/l	FE-202	COAG FLOW TO TANK		16	16mg/L	16mg/L	16mg/L
FLOC TANK MIXER RUNNING	Y/N	M-103A	FLOC MIXER		Y	yes	yes	yes
FLOCCULANT PUMP RUNNING	Y/N	P-203	FLOC PUMP		Y	yes	yes	yes
FLOC LEVEL	% Full	T-203	FLOC TANK LEVEL		8.5gal/16 1/2"	8.4/16 1/4"	8gal/15 1/2"	7.5gal/15 1/8"
FLOCCULANT DOSE RATE	GPM	FE-203	DILUTED FLOC TO FLOC MIX TK		1.00	1.00	1.00	1.0
CLARIFIER RAKE MIXER RUN.	Y/N	M-103B	CLARIFIER MIXER		Y	yes	yes	yes
CLARIFIER SLUDGE PUMP RUN.	Y/N	P-103	SLUDGE PUMP TO GEOTUBE		Y	yes	yes	yes
AIR COMPRESSOR RUNNING	Y/N	C-302	SLUDGE PUMP POWER		Y	yes	yes	yes

* off at Seep 6 Panel.

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/15/2019	10/14/19	10/16/19	10/17/19
				TIME:	1400	1400	1030	1230
				INITIALS:	DS	TB	TB	TB
AIR COMPRESSOR PRESSURE	PSI	PI-302	AIR COMP. PRESSURE		—	—	—	—
CLARIFIER EFF TANK LEVEL	FEET	T-104	GRAVITY TANK POST CLAR.		2'	3'	2'	3'
CLARIFIER EFF PUMP A RUN	Y/N	P-104A	PUMP TO FILTRATION		Y	Yes	Yes	Yes
VFD RATE	HZ	P-104A	PUMP RATE TO FILTRATION		34.99	35.12	35.12	35.12
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104A	PUMP PRESSURE TO FILT.		30	30 psi	30 psi	28 psi
CLARIFIER EFF PUMP B RUN	Y/N	P-104B	PUMP TO FILTRATION		N	No	No	No
VFD RATE	HZ	P-104B	PUMP RATE TO FILTRATION		—	—	—	—
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104B	PUMP PRESSURE TO FILT.		—	—	—	—
GEOTUBE SYSTEM								
GEOTUBE CONTAINER 1 LEVEL	EST.	G-101	GEOTUBE DEWATERING BOX		90	92	93	94
GEOTUBE CONTAINER 2 LEVEL	EST.	G-102	GEOTUBE DEWATERING BOX		15	15	18	18
GEOTUBE DISPOSAL	Y/N	G-101/G-102	GEOTUBE DEWATERING BOX		N	No	No	No
GEOTUBE DISPOSAL QTY	TON	G-101/G-102	WEIGHT OF MATERIAL DISPOSED		—	—	—	—
POLYMER PUMP RUNNING	Y/N	P-205	POLY ADD TO SLUDGE		Y	Yes	Yes	Yes
POLYMER DOSE	GPM	FE-205	POLY FLOW TO SLUDGE		0.422	.422	.422	.387
POLYMER TANK LEVEL	% Full	T-205	POLYMER LEVEL IN TANK		9"	11"	11"	8"
FILTRATION SYSTEM								
SAND FILTER A IN-USE	Y/N	TA-105A	SAND FILTER		Y	Yes	Yes	Yes
SAND FILTER A BACKWASH	Y/N	TA-105A	SAND FILTER		Y	Yes	Yes	Yes N
INLET PRESSURE	PSI	PI-105A/PI-703	INLET PRESSURE TO SAND		23	23	22	24
OUTLET PRESSURE	PSI	PDSH-105A	OUTLET PRESS. TO BAG FIL.		12	10	10	10
PRESSURE DIFFERENTIAL	PSI	PDSH-105A	PRESSURE DIFFERENTIAL		11	13	12	14
SAND FILTER B IN-USE	Y/N	TA-105B	SAND FILTER		Y	Yes	Yes	Yes
SAND FILTER B BACKWASH	Y/N	TA-105B	SAND FILTER		Y	Yes	Yes	No
INLET PRESSURE	PSI	PI-105B/PI-703	INLET PRESSURE TO SAND		23	19	15	22
OUTLET PRESSURE	PSI	PDSH-105B	OUTLET PRESS. TO BAG FIL.		12	10	10	10
PRESSURE DIFFERENTIAL	PSI	PDSH-105B	PRESSURE DIFFERENTIAL		11	9	5	12
BAG FILTER 701 IN-USE	Y/N	F-701A	10, 5 and 1 MICRON BAG FILTER		Y	Yes	Yes	Yes
INLET PRESSURE	PSI	PI-701A	INLET PRESSURE IN BF		12	10	10	10
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		10	10	10	10
PRESSURE DIFFERENTIAL	PSI	PDSH-701A	PRESSURE DIFFERENTIAL		2	0	0	0
BAG CHANGES	Y/N	F-701A	BAG FILTER		Y	Yes	Yes	No
BAG FILTER 702 IN-USE	Y/N	F-702A	10, 5 and 1 MICRON BAG FILTER		Yes	Yes	Yes	Yes
INLET PRESSURE	PSI	PI-702A	INLET PRESSURE IN BF		12	11	10	10
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		10	10	10	10
PRESSURE DIFFERENTIAL	PSI	PDSH-702A	PRESSURE DIFFERENTIAL		2	1	0	0
BAG CHANGE	Y/N	F-702A	BAG FILTER		Y	Yes	Yes	Yes

**OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK**

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/11/2019	10/14/19	10/16/19	10/17/19
				TIME:	1430	1400	1430	1230
				INITIALS:	JS	TB	TB	TB
CARBON FILTER 1 IN-USE	Y/N	TA-106A	CARBON FILTER		Y	Yes	Yes	Yes
CARBON FILTER 1 BACKWASH	Y/N	TA-106A	CARBON FILTER		Y/N	No	No	No
INLET PRESSURE	PSI	PI-106A	INLET PRESSURE FROM BF		10	10	10	5
OUTLET PRESSURE	PSI	PI-106B	OUTLET PRESS. TO EFF-TK		10	10	10	9
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	4
CARBON FILTER 2 IN-USE	Y/N	TA-106B	CARBON FILTER		Y	Yes	Yes	Yes
CARBON FILTER 2 BACKWASH	Y/N	TA-106B	CARBON FILTER		N	No	No	No
INLET PRESSURE	PSI	PI-106B	INLET PRESSURE FROM BF		10	10	10	10
OUTLET PRESSURE	PSI		OUTLET PRESS. TO EFF-TK		10	10	10	10
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	0
BACKWASH PUMP A RUN	Y/N	P-305A	BACKWASH PUMP TO FILT.		N	No	No	No
BACKWASH PRESSURE	PSI	PI-305A	BACKWASH PRESSURE		-	-	-	-
BACKWASH PUMP B RUN	Y/N	P-305B	BACKWASH PUMP TO FILT.		Y	Yes	Yes	No
BACKWASH PRESSURE	PSI	PI-305A	BACKWASH PRESSURE		94	90	89	0
EFFLUENT AND FINAL HOLDING TANK (T-107 AND T-401)								
EFFLUENT FLOW METER	GPM	FQIT-107	FLOW RATE FROM FILTERS		50.41	50.17	46.9	44.58
EFF. FLOW METER TOTAL	TOT.	FQIT-107	TOTAL FLOW		2,248,700	2,369,599	2,418,652	2,441,507
EFFLUENT TANK LEVEL	inwc	T-107	TANK LEVEL		91.02	94.87	97.8	98.46
pH METER	SU	AIT-107	EFF. pH		7.76	7.90	7.87	7.87
DISSOLVED OXYGEN (DOM-107)	DO	AIT-107A	EFF. DO READING		-	-	-	-
TURBIDITY (TBM-107)	NTU	AIT-107B	EFF. TURBIDITY		0.43	0.43	.43	.43
FINAL HOLDING TANK LEVEL	FEET	T-401	FH TK LEVEL		3'	0	0	2'
IRRIG. PUMP RUNNING	Y/N	P-401	IRRIGATION SYSTEM		N	No	No	No
VFD RATE	Hz	P-401	IRRIGATION SYSTEM		-	-	-	-
GRAVITY OUTFALL IN-USE	Y/N	OF-101	OUTFALL TO POENTIC KILL		Y	Yes	Yes	Yes
BUILDING SYSTEM COMPONENTS								
EXHAUST FAN NW IN-USE	Y/N	EF-1	EXHAUST FANS		N	No	No	No
EXHAUST FAN NE IN-USE	Y/N	EF-2	EXHAUST FANS		N	No	No	No
BUILDING HEATERS IN-USE	Y/N	UH-1-8	HEATERS		Y	Yes	Yes	Yes
BUILDING TEMPERATURE	DEG. F		BLDG. TEMP		75°	75°	75°	72°
OVERHEAD DOOR SW OPER.	Y/N		OVERHEAD DOOR		Y	Yes	Yes	Yes
OVERHEAD DOOR NE OPER.	Y/N		OVERHEAD DOOR		Y	Yes	Yes	Yes
OVERHEAD DOOR SE OPER.	Y/N		OVERHEAD DOOR		Y	Yes	Yes	Yes
BLDG CONT SYS OPERATIONAL	Y/N		REMOTE TELEMETRY SYS		Y	Yes	Yes	Yes
GENERAL COMMENTS								

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/22/19	10/24/19	10/25/19	10/28/19
				TIME:	1400	1400	1400	1400
				INITIALS:	DS	DS	DS	DS
SEEP COLLECTION PUMP STATIONS (SEEP 1 - 4, SEEP 5 AND SEEP 6)								
SEEP 1 - 4 PUMP RUN	Y/N	P-100A	SEEP 1-4 P-STATION PUMP		Y	Y	Y	Y
SEEP 5 PUMP RUN	Y/N	P-100B	SEEP 5 P-STATION PUMP		Y	Y	Y	Y
SEEP 6 PUMP RUN	Y/N	P-100C	SEEP 6 P-STATION PUMP		N	N	N	N
INFLUENT TANK (T-101)								
FLOW METER - 100A (FM-A)	GPM	FQIT-100A	S1-4 IN-FLOW		19.10	21.84	20.41	27.11
FLOW METER - 100B (FM-B)	GPM	FQIT-100B	S5 IN-FLOW		54.55	54.97	52.27	53.22
FLOW METER - 100C (FM-C)	GPM	FQIT-100C	S6 IN-FLOW		-	-	-	-
FLOW METER - 101	GPM	FQIT-101	INF TK OUT-FLOW		26.83	29.07	30.80	46.16
FLOW METER - 100A	TOTAL	FQIT-100A	S1-4 IN-FLOW		13,983,900	14,027,600	14,051,600	14,129,100
FLOW METER - 100B	TOTAL	FQIT-100B	S5 IN-FLOW		1,504,900	1,525,600	1,538,000	1,577,500
FLOW METER - 100C	TOTAL	FQIT-100C	S6 IN-FLOW		640,044	640,044	640,044	640,044
FLOW METER - 101	TOTAL	FQIT-101	INF TK OUT-FLOW		3,940,200	4,007,400	4,047,900	4,171,400
BLOWER RUNNING	Y/N	B-101	INF TK BLOWER		Y	Y	Y	Y
BLOWER PRESSURE	PSI	PI-101	INF TK BLOWER PRESS.		4	3	3	4
VFD RATE	Hz	B-101	INF TK BLOWER VFD		50.00	49.95	49.97	50.02
INF: PUMP A RUNNING	Y/N	P-101A	PUMP TO CLARIF.		N	N	N	N
VFD RATE	Hz	P-101A	PUMP TO CLARIF. VFD		-	-	-	-
INF PUMP PRESSURE	PSI	PI-101A	PI FOR INF. PUMP		N	N	N	N
INF. PUMP B RUNNING	Y/N	P-101B	PUMP TO CLARIF.		N	N	N	N
VFD RATE	Hz	P-101B	PUMP TO CLARIF. VFD		-	-	-	-
INF PUMP PRESSURE	PSI	PI-101B	PI FOR INF. PUMP		-	-	-	-
INF Ph	SU	AIT-101	pH FOR INF. WATER		7.44	7.69	7.69	7.45
pH Probe checked	Y/N	AIT-101	pH Probe at influent tank		Y	Y	Y	Y
pH Probe clean (1X/week min)	Y/N	AIT-101	pH Probe at influent tank		N	N	Y	N
INF TANK LEVEL	inwc	T-101	LEVEL TRANSMIT.		17.08	29.39	46.04	73.69
RECIRC PUMP RUNNING	Y/N	P-102	IN TK RECIRC PUMP		Y	Y	Y	Y
VFD RATE	Hz	P-102	IN TK RECIRC VFD		50.00	25.00	25	39.96
CAUSTIC PUMP RUNNING	Y/N	P-201	IN TK CAUSTIC ADD		Y	Y	Y	Y
CAUSTIC TANK LEVEL	L	T-201	IN TK CAUSTIC ADD		46 gal/25"	45 gal/24"	44 gal/23 1/2"	43 gal/22 1/2"
CAUSTIC USAGE	GAL	T-201	CAUSTIC USAGE		8 gal	1 gal	1 23 1/2	5 gal
CAUSTIC USAGE	TOT	T-201	CAUSTIC USAGE		-	-	-	-
CLARIFIER SYSTEM (T-103B)								
FLASH MIX TANK MIXER RUN.	Y/N	M-102	COAG MIXER		Y	Y	Y	Y
COAGULANT PUMP RUNNING	Y/N	P-202	COAG PUMP		Y	Y	Y	Y
COAGULANT LEVEL	% Full	T-202	COAG TANK		31 gal/17"	28 gal/15 1/2"	27 gal/15"	27 gal/14"
COAGULANT DOSE RATE	mg/l	FE-202	COAG FLOW TO TANK		16 mg/L	16	16	16
FLOC TANK MIXER RUNNING	Y/N	M-103A	FLOC MIXER		Y	Y	Y	Y
FLOCCULANT PUMP RUNNING	Y/N	P-203	FLOC PUMP		Y	Y	Y	Y
FLOC LEVEL	% Full	T-203	FLOC TANK LEVEL		7.6 gal/14 1/2"	7.2 gal/14"	7.2 gal/14"	7 gal/13 1/2"

OPERATIONS LOG SHEET
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 GENERAL ELECTRIC MAIN PLANT
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PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/22/19	10/24/19	10/25/19	10/28/19
				TIME:	1500	1400	1400	1500
				INITIALS:	SS	SS	SS	SS
FLOCCULANT DOSE RATE	GPM	FE-203	DILUTED FLOC TO FLOC MIX TK		1.00	1.00	1.00	1.00
CLARIFIER RAKE MIXER RUN.	Y/N	M-103B	CLARIFIER MIXER		Y	Y	Y	Y
CLARIFIER SLUDGE PUMP RUN.	Y/N	P-103	SLUDGE PUMP TO GEOTUBE		Y	Y	Y	Y
AIR COMPRESSOR RUNNING	Y/N	C-302	SLUDGE PUMP POWER		Y	Y	Y	Y
AIR COMPRESSOR PRESSURE	PSI	PI-302	AIR COMP. PRESSURE		-	-	-	-
CLARIFIER EFF TANK LEVEL	FEET	T-104	GRAVITY TANK POST CLAR.		3'	2'	2	2'
CLARIFIER EFF PUMP A RUN	Y/N	P-104A	PUMP TO FILTRATION		Y	Y	Y	Y
VFD RATE	Hz	P-104A	PUMP RATE TO FILTRATION		35.01	34.98	35.00	-
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104A	PUMP PRESSURE TO FILT.		40	39	27	32
CLARIFIER EFF PUMP B RUN	Y/N	P-104B	PUMP TO FILTRATION		N	N	N	N
VFD RATE	Hz	P-104B	PUMP RATE TO FILTRATION		-	-	-	35.00
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104B	PUMP PRESSURE TO FILT.		-	-	-	32
GEOTUBE SYSTEM								
GEOTUBE CONTAINER 1 LEVEL	EST.	G-101	GEOTUBE DEWATERING BOX		95%	90	85	95%
GEOTUBE CONTAINER 2 LEVEL	EST.	G-102	GEOTUBE DEWATERING BOX		20%	20	20	15
GEOTUBE DISPOSAL	Y/N	G-101/G-102	GEOTUBE DEWATERING BOX		N	N	N	N
GEOTUBE DISPOSAL QTY	TON	G-101/G-102	WEIGHT OF MATERIAL DISPOSED		-	-	-	-
POLYMER PUMP RUNNING	Y/N	P-205	POLY ADD TO SLUDGE		Y	Y	Y	Y
POLYMER DOSE	GPM	FE-205	POLY FLOW TO SLUDGE		0.387	0.559	0.559	0.559
POLYMER TANK LEVEL	% Full	T-205	POLYMER LEVEL IN TANK		8"	11"	10"	8"
FILTRATION SYSTEM								
SAND FILTER A IN-USE	Y/N	TA-105A	SAND FILTER		Y	Y	Y	Y
SAND FILTER A BACKWASH	Y/N	TA-105A	SAND FILTER		Y	N	Y	Y
INLET PRESSURE	PSI	PI-105A/PI-703	INLET PRESSURE TO SAND		34	29	21	26
OUTLET PRESSURE	PSI	PDSH-105A	OUTLET PRESS. TO BAG FIL.		10	11	11	12
PRESSURE DIFFERENTIAL	PSI	PDSH-105A	PRESSURE DIFFERENTIAL		24	18	10	14
SAND FILTER B IN-USE	Y/N	TA-105B	SAND FILTER		Y	Y	Y	Y
SAND FILTER B BACKWASH	Y/N	TA-105B	SAND FILTER		Y	N	Y	Y
INLET PRESSURE	PSI	PI-105B/PI-703	INLET PRESSURE TO SAND		34	29	21	26
OUTLET PRESSURE	PSI	PDSH-105B	OUTLET PRESS. TO BAG FIL.		10	11	11	12
PRESSURE DIFFERENTIAL	PSI	PDSH-105B	PRESSURE DIFFERENTIAL		24	18	10	14
BAG FILTER 701 IN-USE	Y/N	F-701A	10, 5 and 1 MICRON BAG FILTER		Y	Y	Y	Y
INLET PRESSURE	PSI	PI-701A	INLET PRESSURE IN BF		10	11	10	12
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		12	11	9	9
PRESSURE DIFFERENTIAL	PSI	PDSH-701A	PRESSURE DIFFERENTIAL		2	0	1	3
BAG CHANGES	Y/N	F-701A	BAG FILTER		N	N	N	N
BAG FILTER 702 IN-USE	Y/N	F-702A	10, 5 and 1 MICRON BAG FILTER		Y	Y	Y	Y
INLET PRESSURE	PSI	PI-702A	INLET PRESSURE IN BF		10	11	10	12
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		12	11	9	9
PRESSURE DIFFERENTIAL	PSI	PDSH-702A	PRESSURE DIFFERENTIAL		2	0	1	3

**OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK**

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/22/19	10/24/19	10/25/19	10/28/19
				TIME:	1500	1400	1400	1500
				INITIALS:	DS	DS	DS	DS
BAG CHANGE	Y/N	F-702A	BAG FILTER		Y 10Mc	N	N	N
CARBON FILTER 1 IN-USE	Y/N	TA-106A	CARBON FILTER		Y	Y	Y	Y
CARBON FILTER 1 BACKWASH	Y/N	TA-106A	CARBON FILTER		N	N	N	N
INLET PRESSURE	PSI	PI-106A	INLET PRESSURE FROM BF		12	11	9	9
OUTLET PRESSURE	PSI	PI-106B	OUTLET PRESS. TO EFF-TK		12	11	9	9
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	0
CARBON FILTER 2 IN-USE	Y/N	TA-106B	CARBON FILTER		Y	Y	Y	Y
CARBON FILTER 2 BACKWASH	Y/N	TA-106B	CARBON FILTER		N	N	N	N
INLET PRESSURE	PSI	PI-106B	INLET PRESSURE FROM BF		12	11	9	9
OUTLET PRESSURE	PSI		OUTLET PRESS. TO EFF-TK		12	11	9	9
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL		0	0	0	0
BACKWASH PUMP A RUN	Y/N	P-305A	BACKWASH PUMP TO FILT.		N	N	N	N
BACKWASH PRESSURE	PSI	PI-305A	BACKWASH PRESSURE		-	-	-	-
BACKWASH PUMP B RUN	Y/N	P-305B	BACKWASH PUMP TO FILT.		Y	N	Y	Y
BACKWASH PRESSURE	PSI	PI-305B	BACKWASH PRESSURE		93 PSI	-	94	93
EFFLUENT AND FINAL HOLDING TANK (T-107 AND T-401)								
EFFLUENT FLOW METER	GPM	FQIT-107	FLOW RATE FROM FILTERS		46.93	52.91	54.92	51.46
EFF. FLOW METER TOTAL	TOT.	FQIT-107	TOTAL FLOW		2,588,500	2,624,000	2,661,400	2,770,700
EFFLUENT TANK LEVEL	inwc	T-107	TANK LEVEL		71.63	91.02	82.26	73.32
pH METER	SU	AIT-107	EFF. pH		7.92	7.82	7.74	7.84
DISSOLVED OXYGEN (DOM-107)	DO	AIT-107A	EFF. DO READING		-	-	-	-
TURBIDITY (TBM-107)	NTU	AIT-107B	EFF. TURBIDITY		0.44	0.45	0.45	0.46
FINAL HOLDING TANK LEVEL	FEET	T-401	FH TK LEVEL		1'	2'	3'	1'
IRRIG. PUMP RUNNING	Y/N	P-401	IRRIGATION SYSTEM		N	N	N	N
VFD RATE	Hz	P-401	IRRIGATION SYSTEM		-	-	-	-
GRAVITY OUTFALL IN-USE	Y/N	OF-101	OUTFALL TO POENTIC KILL		Y	Y	Y	Y
BUILDING SYSTEM COMPONENTS								
EXHAUST FAN NW IN-USE	Y/N	EF-1	EXHAUST FANS		N	N	N	N
EXHAUST FAN NE IN-USE	Y/N	EF-2	EXHAUST FANS		N	N	N	N
BUILDING HEATERS IN-USE	Y/N	UH-1-8	HEATERS		Y	Y	Y	Y
BUILDING TEMPERATURE	DEG. F		BLDG. TEMP		75	75	75	75
OVERHEAD DOOR SW OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
OVERHEAD DOOR NE OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
OVERHEAD DOOR SE OPER.	Y/N		OVERHEAD DOOR		Y	Y	Y	Y
BLDG CONT SYS OPERATIONAL	Y/N		REMOTE TELEMETRY SYS		Y	Y	Y	Y
GENERAL COMMENTS								

**OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK**

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/29/19	10/30/2019	10/31/19
				TIME:	1:50	1400	1400
				INITIALS:	JS	JS	JS
SEEP COLLECTION PUMP STATIONS (SEEP 1 - 4, SEEP 5 AND SEEP 6)							
SEEP 1 - 4 PUMP RUN	Y/N	P-100A	SEEP 1-4 P-STATION PUMP		Y	Y	Y
SEEP 5 PUMP RUN	Y/N	P-100B	SEEP 5 P-STATION PUMP		Y	Y	Y
SEEP 6 PUMP RUN	Y/N	P-100C	SEEP 6 P-STATION PUMP		N	N	N
INFLUENT TANK (T-101)							
FLOW METER - 100A (FM-A)	GPM	FQIT-100A	S1-4 IN-FLOW		26.86	27.06	26.24
FLOW METER - 100B (FM-B)	GPM	FQIT-100B	S5 IN-FLOW		53.57	53.51	51.39
FLOW METER - 100C (FM-C)	GPM	FQIT-100C	S6 IN-FLOW		-	-	-
FLOW METER - 101	GPM	FQIT-101	INF TK OUT-FLOW		29.48	27.03	51.14
FLOW METER - 100A	TOTAL	FQIT-100A	S1-4 IN-FLOW		14155,200	14,178,600	14,205,300
FLOW METER - 100B	TOTAL	FQIT-100B	S5 IN-FLOW		1,590,500	1,604,200	1,616,300
FLOW METER - 100C	TOTAL	FQIT-100C	S6 IN-FLOW		640,044	640,044	640,044
FLOW METER - 101	TOTAL	FQIT-101	INF TK OUT-FLOW		4,214,800	4,230,800	4,294,100
BLOWER RUNNING	Y/N	B-101	INF TK BLOWER		Y	Y	Y
BLOWER PRESSURE	PSI	PI-101	INF TK BLOWER PRESS.		3	4	4
VFD RATE	Hz	B-101	INF TK BLOWER VFD		49.99	49.96	50.08
INF. PUMP A RUNNING	Y/N	P-101A	PUMP TO CLARIF.		N	N	N
VFD RATE	Hz	P-101A	PUMP TO CLARIF. VFD		-	-	-
INF PUMP PRESSURE	PSI	PI-101A	PI FOR INF. PUMP		-	-	-
INF. PUMP B RUNNING	Y/N	P-101B	PUMP TO CLARIF.		N	N	N
VFD RATE	Hz	P-101B	PUMP TO CLARIF. VFD		-	-	-
INF PUMP PRESSURE	PSI	PI-101B	PI FOR INF. PUMP		-	-	-
INF Ph	SU	AIT-101	pH FOR INF. WATER		7.38	7.66	7.39
pH Probe checked	Y/N	AIT-101	pH Probe at influent tank		Y	Y	Y
pH Probe clean (1X/week min)	Y/N	AIT-101	pH Probe at influent tank		N	N	N
INF TANK LEVEL	inwc	T-101	LEVEL TRANSMIT.		51.97	22.88	45.21
RECIRC PUMP RUNNING	Y/N	P-102	IN TK RECIRC PUMP		Y	Y	Y
VFD RATE	Hz	P-102	IN TK RECIRC VFD		25	25.0	50.00
CAUSTIC PUMP RUNNING	Y/N	P-201	IN TK CAUSTIC ADD		Y	Y	Y
CAUSTIC TANK LEVEL	L	T-201	IN TK CAUSTIC ADD		28 gal/15"	25 gal/13.5"	75 gal/39.4"
CAUSTIC USAGE	GAL	T-201	CAUSTIC USAGE		5 gal	3 gal	5 gal
CAUSTIC USAGE	TOT	T-201	CAUSTIC USAGE		-	-	55
CLARIFIER SYSTEM (T-103B)							
FLASH MIX TANK MIXER RUN.	Y/N	M-102	COAG MIXER		Y	Y	Y
COAGULANT PUMP RUNNING	Y/N	P-202	COAG PUMP		Y	Y	Y
COAGULANT LEVEL	% Full	T-202	COAG TANK		70"/15 gal	73 gal/39.4"	72 gal/38.4"
COAGULANT DOSE RATE	mg/l	FE-202	COAG FLOW TO TANK		16	16	16
FLOC TANK MIXER RUNNING	Y/N	M-103A	FLOC MIXER		Y	Y	Y
FLOCCULANT PUMP RUNNING	Y/N	P-203	FLOC PUMP		Y	Y	Y
FLOC LEVEL	% Full	T-203	FLOC TANK LEVEL		66%	65%	65%

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	10/29/19	10/30/19	10/31/19
				TIME:	15:00	14:00	14:00
				INITIALS:	DS	DS	DS
FLOCCULANT DOSE RATE	GPM	FE-203	DILUTED FLOC TO FLOC MIX TK		1.00	1.00	1.00
CLARIFIER RAKE MIXER RUN.	Y/N	M-103B	CLARIFIER MIXER		Y	Y	Y
CLARIFIER SLUDGE PUMP RUN.	Y/N	P-103	SLUDGE PUMP TO GEOTUBE		Y	Y	Y
AIR COMPRESSOR RUNNING	Y/N	C-302	SLUDGE PUMP POWER		Y	Y	Y
AIR COMPRESSOR PRESSURE	PSI	PI-302	AIR COMP. PRESSURE		—	—	—
CLARIFIER EFF TANK LEVEL	FEET	T-104	GRAVITY TANK POST CLAR.		2'	2'	3'
CLARIFIER EFF PUMP A RUN	Y/N	P-104A	PUMP TO FILTRATION		Y	Y	Y
VFD RATE	Hz	P-104A	PUMP RATE TO FILTRATION		35.0	35.0	35.02
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104A	PUMP PRESSURE TO FILT.		29	38	32
CLARIFIER EFF PUMP B RUN	Y/N	P-104B	PUMP TO FILTRATION		N	N	N
VFD RATE	Hz	P-104B	PUMP RATE TO FILTRATION		—	—	—
CLARIFIER EFF. PUMP PRESSURE	PSI	PI-104B	PUMP PRESSURE TO FILT.		—	—	—
GEOTUBE SYSTEM							
GEOTUBE CONTAINER 1 LEVEL	EST.	G-101	GEOTUBE DEWATERING BOX		95%	95%	95
GEOTUBE CONTAINER 2 LEVEL	EST.	G-102	GEOTUBE DEWATERING BOX		15%	15%	15
GEOTUBE DISPOSAL	Y/N	G-101/G-102	GEOTUBE DEWATERING BOX		N	N	N
GEOTUBE DISPOSAL QTY	TON	G-101/G-102	WEIGHT OF MATERIAL DISPOSED		—	—	—
POLYMER PUMP RUNNING	Y/N	P-205	POLY ADD TO SLUDGE		Y	Y	Y
POLYMER DOSE	GPM	FE-205	POLY FLOW TO SLUDGE		0.580	0.580	0.580
POLYMER TANK LEVEL	% Full	T-205	POLYMER LEVEL IN TANK		14"	13"	12
FILTRATION SYSTEM							
SAND FILTER A IN-USE	Y/N	TA-105A	SAND FILTER		Y	Y	Y
SAND FILTER A BACKWASH	Y/N	TA-105A	SAND FILTER		Y	Y	Y
INLET PRESSURE	PSI	PI-105A/PI-703	INLET PRESSURE TO SAND		24	31	32.5
OUTLET PRESSURE	PSI	PDSH-105A	OUTLET PRESS. TO BAG FIL.		12	10	12.5
PRESSURE DIFFERENTIAL	PSI	PDSH-105A	PRESSURE DIFFERENTIAL		12	21	10
SAND FILTER B IN-USE	Y/N	TA-105B	SAND FILTER		Y	Y	Y
SAND FILTER B BACKWASH	Y/N	TA-105B	SAND FILTER		Y	Y	Y
INLET PRESSURE	PSI	PI-105B/PI-703	INLET PRESSURE TO SAND		24	31	25
OUTLET PRESSURE	PSI	PDSH-105B	OUTLET PRESS. TO BAG FIL.		12	10	15
PRESSURE DIFFERENTIAL	PSI	PDSH-105B	PRESSURE DIFFERENTIAL		12	21	10
BAG FILTER 701 IN-USE	Y/N	F-701A	10, 5 and 1 MICRON BAG FILTER		Y	Y	Y
INLET PRESSURE	PSI	PI-701A	INLET PRESSURE IN BF		12	10	14
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		11	8	8
PRESSURE DIFFERENTIAL	PSI	PDSH-701A	PRESSURE DIFFERENTIAL		1	2	6
BAG CHANGES	Y/N	F-701A	BAG FILTER		Y	Y	Y
BAG FILTER 702 IN-USE	Y/N	F-702A	10, 5 and 1 MICRON BAG FILTER		Y	Y	Y
INLET PRESSURE	PSI	PI-702A	INLET PRESSURE IN BF		12	10	14
OUTLET PRESSURE	PSI	PI-704	OUTLET PRESSURE IN BF		11	8	8
PRESSURE DIFFERENTIAL	PSI	PDSH-702A	PRESSURE DIFFERENTIAL		1	2	6

OPERATIONS LOG SHEET
ENHANCED SEEP COLLECTION SYSTEM
GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

PARAMETER	UNITS	EQUIPMENT TAG	DESCRIPTION	DATE:	TIME:	INITIALS:
BAG CHANGE	Y/N	F-702A	BAG FILTER	10/29/19	1500	DS
CARBON FILTER 1 IN-USE	Y/N	TA-106A	CARBON FILTER	10/30/19	1400	DS
CARBON FILTER 1 BACKWASH	Y/N	TA-106A	CARBON FILTER	10/31/19	1400	DS
INLET PRESSURE	PSI	PI-106A	INLET PRESSURE FROM BF			
OUTLET PRESSURE	PSI	PI-106B	OUTLET PRESS. TO EFF-TK			
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL			
CARBON FILTER 2 IN-USE	Y/N	TA-106B	CARBON FILTER			
CARBON FILTER 2 BACKWASH	Y/N	TA-106B	CARBON FILTER			
INLET PRESSURE	PSI	PI-106B	INLET PRESSURE FROM BF			
OUTLET PRESSURE	PSI		OUTLET PRESS. TO EFF-TK			
PRESSURE DIFFERENTIAL	PSI		PRESSURE DIFFERENTIAL			
BACKWASH PUMP A RUN	Y/N	P-305A	BACKWASH PUMP TO FILT.			
BACKWASH PRESSURE	PSI	PI-305A	BACKWASH PRESSURE			
BACKWASH PUMP B RUN	Y/N	P-305B	BACKWASH PUMP TO FILT.			
BACKWASH PRESSURE	PSI	PI-305B	BACKWASH PRESSURE			
EFFLUENT AND FINAL HOLDING TANK (T-107 AND T-401)						
EFFLUENT FLOW METER	GPM	FQIT-107	FLOW RATE FROM FILTERS			
EFF. FLOW METER TOTAL	TOT.	FQIT-107	TOTAL FLOW			
EFFLUENT TANK LEVEL	inwc	T-107	TANK LEVEL			
pH METER	SU	AIT-107	EFF. pH			
DISSOLVED OXYGEN (DOM-107)	DO	AIT-107A	EFF. DO READING			
TURBIDITY (TBM-107)	NTU	AIT-107B	EFF. TURBIDITY			
FINAL HOLDING TANK LEVEL	FEET	T-401	FH TK LEVEL			
IRRIG. PUMP RUNNING	Y/N	P-401	IRRIGATION SYSTEM			
VFD RATE	Hz	P-401	IRRIGATION SYSTEM			
GRAVITY OUTFALL IN-USE	Y/N	OF-101	OUTFALL TO POENTIC KILL			
BUILDING SYSTEM COMPONENTS						
EXHAUST FAN NW IN-USE	Y/N	EF-1	EXHAUST FANS			
EXHAUST FAN NE IN-USE	Y/N	EF-2	EXHAUST FANS			
BUILDING HEATERS IN-USE	Y/N	UH-1-8	HEATERS			
BUILDING TEMPERATURE	DEG. F		BLDG. TEMP			
OVERHEAD DOOR SW OPER.	Y/N		OVERHEAD DOOR			
OVERHEAD DOOR NE OPER.	Y/N		OVERHEAD DOOR			
OVERHEAD DOOR SE OPER.	Y/N		OVERHEAD DOOR			
BLDG CONT SYS OPERATIONAL	Y/N		REMOTE TELEMETRY SYS			
GENERAL COMMENTS						

Analytical Data for Seep Collection & Treatment System

ANALYTICAL RESULTS

Project: GE MAIN FACILITY WEEKLY 10/3

Pace Project No.: 70107280

Sample: EFFLUENT		Lab ID: 70107280001	Collected: 10/03/19 14:05	Received: 10/04/19 10:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
608.3 GCSV PCB LOW		Analytical Method: EPA 608.3 Preparation Method: EPA 608.3						
PCB-1016 (Aroclor 1016)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	11096-82-5	
PCB, Total	<0.065	ug/L	0.065	1	10/07/19 10:47	10/09/19 05:01	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	42	%	10-149	1	10/07/19 10:47	10/09/19 05:01	877-09-8	
Decachlorobiphenyl (S)	43	%	10-149	1	10/07/19 10:47	10/09/19 05:01	2051-24-3	
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Aluminum	<200	ug/L	200	1	10/08/19 11:22	10/10/19 22:46	7429-90-5	
Iron	<100	ug/L	100	1	10/08/19 11:22	10/10/19 22:46	7439-89-6	
Lead	5.5	ug/L	5.0	1	10/08/19 11:22	10/10/19 22:46	7439-92-1	
5210B BOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
BOD, 5 day	<2.0	mg/L	2.0	1	10/04/19 16:54	10/09/19 11:30		
5210B cBOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
Carbonaceous BOD, 5 day	<2.0	mg/L	2.0	1	10/04/19 16:53	10/09/19 11:27		
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	1.4	mg/L	0.10	1	10/11/19 05:55	10/11/19 12:06	7727-37-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GE MAIN FACILITY WEEKLY 10/3

Pace Project No.: 70107280

Sample: EFFLUENT	Lab ID: 70107280002	Collected: 10/03/19 14:15	Received: 10/04/19 10:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624.1 Volatile Organics	Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1		10/06/19 17:15	71-43-2	
Chlorobenzene	<1.0	ug/L	1.0	1		10/06/19 17:15	108-90-7	
Ethylbenzene	<1.0	ug/L	1.0	1		10/06/19 17:15	100-41-4	
Toluene	<1.0	ug/L	1.0	1		10/06/19 17:15	108-88-3	
m&p-Xylene	<1.0	ug/L	1.0	1		10/06/19 17:15	179601-23-1	
o-Xylene	<1.0	ug/L	1.0	1		10/06/19 17:15	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	79-124	1		10/06/19 17:15	460-00-4	
Toluene-d8 (S)	110	%	69-127	1		10/06/19 17:15	2037-26-5	
1,2-Dichloroethane-d4 (S)	110	%	68-153	1		10/06/19 17:15	17060-07-0	
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	646	mg/L	20.0	1		10/10/19 09:29		
2540D Total Suspended Solids	Analytical Method: SM22 2540D							
Total Suspended Solids	<2.0	mg/L	2.0	1		10/08/19 15:41		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GE MAIN FACILITY WEEKLY 10/3

Pace Project No.: 70107280

Sample: TRIP BLANK		Lab ID: 70107280003		Collected: 10/03/19 14:05		Received: 10/04/19 10:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1			10/06/19 16:53	71-43-2	
Chlorobenzene	<1.0	ug/L	1.0	1			10/06/19 16:53	108-90-7	
Ethylbenzene	<1.0	ug/L	1.0	1			10/06/19 16:53	100-41-4	
Toluene	<1.0	ug/L	1.0	1			10/06/19 16:53	108-88-3	
m&p-Xylene	<1.0	ug/L	1.0	1			10/06/19 16:53	179601-23-1	
o-Xylene	<1.0	ug/L	1.0	1			10/06/19 16:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	79-124	1			10/06/19 16:53	460-00-4	
Toluene-d8 (S)	112	%	69-127	1			10/06/19 16:53	2037-26-5	
1,2-Dichloroethane-d4 (S)	105	%	68-153	1			10/06/19 16:53	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/10

Pace Project No.: 70108143

Sample: EFFLUENT		Lab ID: 70108143001	Collected: 10/10/19 14:15	Received: 10/11/19 10:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
608.3 GCSV PCB LOW		Analytical Method: EPA 608.3 Preparation Method: EPA 608.3						
PCB-1016 (Aroclor 1016)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	11096-82-5	
PCB, Total	<0.065	ug/L	0.065	1	10/14/19 20:15	10/15/19 17:33	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	41	%	10-149	1	10/14/19 20:15	10/15/19 17:33	877-09-8	
Decachlorobiphenyl (S)	76	%	10-149	1	10/14/19 20:15	10/15/19 17:33	2051-24-3	
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Aluminum	<200	ug/L	200	1	10/16/19 09:46	10/18/19 12:36	7429-90-5	
Iron	<100	ug/L	100	1	10/16/19 09:46	10/18/19 12:36	7439-89-6	
Lead	<5.0	ug/L	5.0	1	10/16/19 09:46	10/18/19 12:36	7439-92-1	
5210B BOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
BOD, 5 day	<2.0	mg/L	2.0	1	10/11/19 16:57	10/16/19 11:33		
5210B cBOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
Carbonaceous BOD, 5 day	<2.0	mg/L	2.0	1	10/11/19 16:57	10/16/19 11:31		
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	1.7	mg/L	0.10	1	10/18/19 06:00	10/18/19 13:09	7727-37-9	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/10

Pace Project No.: 70108143

Sample: EFFLUENT		Lab ID: 70108143002		Collected: 10/10/19 14:00		Received: 10/11/19 10:35		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1		10/14/19 15:06	71-43-2		
Chlorobenzene	<1.0	ug/L	1.0	1		10/14/19 15:06	108-90-7		
Ethylbenzene	<1.0	ug/L	1.0	1		10/14/19 15:06	100-41-4		
Toluene	<1.0	ug/L	1.0	1		10/14/19 15:06	108-88-3		
m&p-Xylene	<1.0	ug/L	1.0	1		10/14/19 15:06	179601-23-1		
o-Xylene	<1.0	ug/L	1.0	1		10/14/19 15:06	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	105	%	79-124	1		10/14/19 15:06	460-00-4		
Toluene-d8 (S)	114	%	69-127	1		10/14/19 15:06	2037-26-5		
1,2-Dichloroethane-d4 (S)	103	%	68-153	1		10/14/19 15:06	17060-07-0		
2540C Total Dissolved Solids		Analytical Method: SM22 2540C							
Total Dissolved Solids	596	mg/L	20.0	1		10/15/19 11:17			
2540D Total Suspended Solids		Analytical Method: SM22 2540D							
Total Suspended Solids	<2.0	mg/L	2.0	1		10/17/19 14:57			

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/10

Pace Project No.: 70108143

Sample: TRIP BLANK		Lab ID: 70108143003		Collected: 10/10/19 14:00		Received: 10/11/19 10:35		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1			10/14/19 14:44	71-43-2	
Chlorobenzene	<1.0	ug/L	1.0	1			10/14/19 14:44	108-90-7	
Ethylbenzene	<1.0	ug/L	1.0	1			10/14/19 14:44	100-41-4	L1
Toluene	<1.0	ug/L	1.0	1			10/14/19 14:44	108-88-3	
m&p-Xylene	<1.0	ug/L	1.0	1			10/14/19 14:44	179601-23-1	
o-Xylene	<1.0	ug/L	1.0	1			10/14/19 14:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	79-124	1			10/14/19 14:44	460-00-4	
Toluene-d8 (S)	105	%	69-127	1			10/14/19 14:44	2037-26-5	
1,2-Dichloroethane-d4 (S)	101	%	68-153	1			10/14/19 14:44	17060-07-0	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/17

Pace Project No.: 70108935

Sample: EFFLUENT		Lab ID: 70108935001	Collected: 10/17/19 15:00	Received: 10/18/19 10:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
608.3 GCSV PCB LOW		Analytical Method: EPA 608.3 Preparation Method: EPA 608.3						
PCB-1016 (Aroclor 1016)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	11096-82-5	
PCB, Total	<0.065	ug/L	0.065	1	10/18/19 19:33	10/21/19 16:40	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	61	%	10-149	1	10/18/19 19:33	10/21/19 16:40	877-09-8	
Decachlorobiphenyl (S)	80	%	10-149	1	10/18/19 19:33	10/21/19 16:40	2051-24-3	
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Aluminum	<200	ug/L	200	1	10/21/19 12:00	10/24/19 13:49	7429-90-5	
Iron	<100	ug/L	100	1	10/21/19 12:00	10/24/19 13:49	7439-89-6	
Lead	<5.0	ug/L	5.0	1	10/21/19 12:00	10/24/19 13:49	7439-92-1	
5210B BOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
BOD, 5 day	<2.0	mg/L	2.0	1	10/18/19 15:49	10/23/19 12:04		
5210B cBOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
Carbonaceous BOD, 5 day	<2.0	mg/L	2.0	1	10/18/19 15:49	10/23/19 12:00		
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	1.4	mg/L	0.10	1	10/25/19 05:59	10/25/19 12:10	7727-37-9	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/17

Pace Project No.: 70108935

Sample: EFFLUENT		Lab ID: 70108935002		Collected: 10/17/19 12:30		Received: 10/18/19 10:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1		10/20/19 14:10	71-43-2		
Chlorobenzene	<1.0	ug/L	1.0	1		10/20/19 14:10	108-90-7		
Ethylbenzene	<1.0	ug/L	1.0	1		10/20/19 14:10	100-41-4		
Toluene	<1.0	ug/L	1.0	1		10/20/19 14:10	108-88-3		
m&p-Xylene	<1.0	ug/L	1.0	1		10/20/19 14:10	179601-23-1		
o-Xylene	<1.0	ug/L	1.0	1		10/20/19 14:10	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	86	%	79-124	1		10/20/19 14:10	460-00-4		
Toluene-d8 (S)	95	%	69-127	1		10/20/19 14:10	2037-26-5		
1,2-Dichloroethane-d4 (S)	117	%	68-153	1		10/20/19 14:10	17060-07-0		
2540C Total Dissolved Solids		Analytical Method: SM22 2540C							
Total Dissolved Solids	546	mg/L	20.0	1		10/23/19 09:49			
2540D Total Suspended Solids		Analytical Method: SM22 2540D							
Total Suspended Solids	<2.0	mg/L	2.0	1		10/23/19 15:03			

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/17

Pace Project No.: 70108935

Sample: TRIP BLANK		Lab ID: 70108935003		Collected: 10/17/19 12:30		Received: 10/18/19 10:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1			10/20/19 13:52	71-43-2	
Chlorobenzene	<1.0	ug/L	1.0	1			10/20/19 13:52	108-90-7	
Ethylbenzene	<1.0	ug/L	1.0	1			10/20/19 13:52	100-41-4	
Toluene	<1.0	ug/L	1.0	1			10/20/19 13:52	108-88-3	
m&p-Xylene	<1.0	ug/L	1.0	1			10/20/19 13:52	179601-23-1	
o-Xylene	<1.0	ug/L	1.0	1			10/20/19 13:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	79-124	1			10/20/19 13:52	460-00-4	
Toluene-d8 (S)	104	%	69-127	1			10/20/19 13:52	2037-26-5	
1,2-Dichloroethane-d4 (S)	121	%	68-153	1			10/20/19 13:52	17060-07-0	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/24

Pace Project No.: 70109708

Sample: EFFLUENT		Lab ID: 70109708001	Collected: 10/24/19 14:30	Received: 10/25/19 10:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
608.3 GCSV PCB LOW		Analytical Method: EPA 608.3 Preparation Method: EPA 608.3						
PCB-1016 (Aroclor 1016)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	11096-82-5	
PCB, Total	<0.065	ug/L	0.065	1	10/28/19 09:39	10/29/19 17:22	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	39	%	10-149	1	10/28/19 09:39	10/29/19 17:22	877-09-8	
Decachlorobiphenyl (S)	76	%	10-149	1	10/28/19 09:39	10/29/19 17:22	2051-24-3	
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Aluminum	<200	ug/L	200	1	10/31/19 10:00	11/01/19 13:03	7429-90-5	
Iron	<100	ug/L	100	1	10/31/19 10:00	11/01/19 13:03	7439-89-6	
Lead	<5.0	ug/L	5.0	1	10/31/19 10:00	11/01/19 13:03	7439-92-1	
5210B BOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
BOD, 5 day	<2.0	mg/L	2.0	1	10/25/19 16:13	10/30/19 12:00		
5210B cBOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
Carbonaceous BOD, 5 day	<2.0	mg/L	2.0	1	10/25/19 16:13	10/30/19 11:58		
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	1.6	mg/L	0.10	1	10/31/19 06:04	10/31/19 13:04	7727-37-9	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/24

Pace Project No.: 70109708

Sample: EFFLUENT		Lab ID: 70109708002		Collected: 10/24/19 14:45		Received: 10/25/19 10:40		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1		10/29/19 16:09	71-43-2		
Chlorobenzene	<1.0	ug/L	1.0	1		10/29/19 16:09	108-90-7		
Ethylbenzene	<1.0	ug/L	1.0	1		10/29/19 16:09	100-41-4		
Toluene	<1.0	ug/L	1.0	1		10/29/19 16:09	108-88-3		
m&p-Xylene	<1.0	ug/L	1.0	1		10/29/19 16:09	179601-23-1		
o-Xylene	<1.0	ug/L	1.0	1		10/29/19 16:09	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	101	%	79-124	1		10/29/19 16:09	460-00-4		
Toluene-d8 (S)	101	%	69-127	1		10/29/19 16:09	2037-26-5		
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		10/29/19 16:09	17060-07-0		
2540C Total Dissolved Solids		Analytical Method: SM22 2540C							
Total Dissolved Solids	596	mg/L	20.0	1		10/31/19 10:30			
2540D Total Suspended Solids		Analytical Method: SM22 2540D							
Total Suspended Solids	8.0	mg/L	2.0	1		10/30/19 15:22			

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY 10/24

Pace Project No.: 70109708

Sample: TRIP BLANK		Lab ID: 70109708003		Collected: 10/24/19 14:30		Received: 10/25/19 10:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1			10/29/19 13:57	71-43-2	
Chlorobenzene	<1.0	ug/L	1.0	1			10/29/19 13:57	108-90-7	
Ethylbenzene	<1.0	ug/L	1.0	1			10/29/19 13:57	100-41-4	
Toluene	<1.0	ug/L	1.0	1			10/29/19 13:57	108-88-3	
m&p-Xylene	<1.0	ug/L	1.0	1			10/29/19 13:57	179601-23-1	
o-Xylene	<1.0	ug/L	1.0	1			10/29/19 13:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	79-124	1			10/29/19 13:57	460-00-4	
Toluene-d8 (S)	106	%	69-127	1			10/29/19 13:57	2037-26-5	
1,2-Dichloroethane-d4 (S)	104	%	68-153	1			10/29/19 13:57	17060-07-0	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY

Pace Project No.: 70110208

Sample: EFFLUENT		Lab ID: 70110208001	Collected: 10/30/19 14:16	Received: 10/31/19 10:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
608.3 GCSV PCB LOW		Analytical Method: EPA 608.3 Preparation Method: EPA 608.3						
PCB-1016 (Aroclor 1016)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	11096-82-5	
PCB, Total	<0.065	ug/L	0.065	1	10/31/19 21:54	11/01/19 10:51	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	39	%	10-149	1	10/31/19 21:54	11/01/19 10:51	877-09-8	
Decachlorobiphenyl (S)	91	%	10-149	1	10/31/19 21:54	11/01/19 10:51	2051-24-3	
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Aluminum	<200	ug/L	200	1	11/04/19 10:56	11/06/19 12:06	7429-90-5	
Iron	<100	ug/L	100	1	11/04/19 10:56	11/06/19 12:06	7439-89-6	
Lead	<5.0	ug/L	5.0	1	11/04/19 10:56	11/06/19 12:06	7439-92-1	
5210B BOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
BOD, 5 day	<2.0	mg/L	2.0	1	10/31/19 18:01	11/05/19 12:49		
5210B cBOD, 5 day		Analytical Method: SM22 5210B Preparation Method: SM22 5210B						
Carbonaceous BOD, 5 day	<2.0	mg/L	2.0	1	10/31/19 18:01	11/05/19 12:51		
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	2.4	mg/L	0.10	1	11/06/19 05:55	11/06/19 13:38	7727-37-9	

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY

Pace Project No.: 70110208

Sample: EFFLUENT		Lab ID: 70110208002		Collected: 10/30/19 14:22		Received: 10/31/19 10:50		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1		11/04/19 17:10	71-43-2		
Chlorobenzene	<1.0	ug/L	1.0	1		11/04/19 17:10	108-90-7		
Ethylbenzene	<1.0	ug/L	1.0	1		11/04/19 17:10	100-41-4		
Toluene	<1.0	ug/L	1.0	1		11/04/19 17:10	108-88-3		
m&p-Xylene	<1.0	ug/L	1.0	1		11/04/19 17:10	179601-23-1		
o-Xylene	<1.0	ug/L	1.0	1		11/04/19 17:10	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102	%	79-124	1		11/04/19 17:10	460-00-4		
Toluene-d8 (S)	101	%	69-127	1		11/04/19 17:10	2037-26-5		
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		11/04/19 17:10	17060-07-0		
2540C Total Dissolved Solids		Analytical Method: SM22 2540C							
Total Dissolved Solids	602	mg/L	20.0	1		11/06/19 11:01			
2540D Total Suspended Solids		Analytical Method: SM22 2540D							
Total Suspended Solids	<2.0	mg/L	2.0	1		11/05/19 15:24			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GE MAIN PLANT FACILITY

Pace Project No.: 70110208

Sample: TRIP BLANK		Lab ID: 70110208003		Collected: 10/30/19 14:05		Received: 10/31/19 10:50		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624.1 Volatile Organics		Analytical Method: EPA 624.1							
Benzene	<1.0	ug/L	1.0	1			11/04/19 16:48	71-43-2	
Chlorobenzene	<1.0	ug/L	1.0	1			11/04/19 16:48	108-90-7	
Ethylbenzene	<1.0	ug/L	1.0	1			11/04/19 16:48	100-41-4	
Toluene	<1.0	ug/L	1.0	1			11/04/19 16:48	108-88-3	
m&p-Xylene	<1.0	ug/L	1.0	1			11/04/19 16:48	179601-23-1	
o-Xylene	<1.0	ug/L	1.0	1			11/04/19 16:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	79-124	1			11/04/19 16:48	460-00-4	
Toluene-d8 (S)	99	%	69-127	1			11/04/19 16:48	2037-26-5	
1,2-Dichloroethane-d4 (S)	110	%	68-153	1			11/04/19 16:48	17060-07-0	

REPORT OF LABORATORY ANALYSIS

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Polychlorinated Biphenyl Minimization Plan Analytical Data

ANALYTICAL RESULTS

Project: QUARTERLY PCB MP 9/19

Pace Project No.: 70105685

Sample: INFLUENT		Lab ID: 70105685002		Collected: 09/19/19 14:43		Received: 09/20/19 10:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
608.3 GCSV PCB LOW		Analytical Method: EPA 608.3 Preparation Method: EPA 608.3							
PCB-1016 (Aroclor 1016)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	12674-11-2		
PCB-1221 (Aroclor 1221)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	11104-28-2		
PCB-1232 (Aroclor 1232)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	11141-16-5		
PCB-1242 (Aroclor 1242)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	53469-21-9		
PCB-1248 (Aroclor 1248)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	12672-29-6		
PCB-1254 (Aroclor 1254)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	11097-69-1		
PCB-1260 (Aroclor 1260)	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	11096-82-5		
PCB, Total	<0.065	ug/L	0.065	1	09/23/19 09:55	09/24/19 21:20	1336-36-3		
Surrogates									
Tetrachloro-m-xylene (S)	60	%	10-149	1	09/23/19 09:55	09/24/19 21:20	877-09-8		
Decachlorobiphenyl (S)	89	%	10-149	1	09/23/19 09:55	09/24/19 21:20	2051-24-3		

REPORT OF LABORATORY ANALYSIS

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Shallow Groundwater Treatment System Operations Logs

OPERATOR: <u>John Gardner</u>	NOTES extraction on 4 wells did not produce enough water. Turning off 1 extraction well accelerated motive water motive Y strainer requires frequent cleaning
DATE: <u>10-23-19</u>	
ZONE TREATED: <u>3</u>	
BATCH NUMBER: <u>1,2</u>	

SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS

CHEMICAL FEED SYSTEM		Batch 1					Batch 2				
PARAMETER	UNIT										
QTY WATER IN SULFATE TANK	GAL	50	50	30	10	0	50	30	10	0	
LB EPSOM SALT ADDED	LB	47	47				47				
ARGON TANK PRESSURE	PSI	90	90	91	91	91	91	90	90	90	
SULFATE PUMP INSPECTION		✓	✓	✓	✓	✓	✓	✓	✓	✓	
SULFATE FLOW RATE	GPM										
INJECTION WELLS											
WELL ID		A6-B1									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	2.5	2.3	2.1	1.7	2.1	2.2	2.1	2.1	2.1	
WELL PRESSURE	PSI	17.8	17.8	17.13.6	17.4	13.16.1	14.7	14.9	14.4	14.4	
WELL ID		A7-B7									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	2.2	2.2	2.3	1.6	2.3	2.4	2.2	2.2	2.2	
WELL PRESSURE	PSI	16.8	16.8	15.5	14.2	15.0	15.3	15.0	14.9	14.8	
WELL ID		B8									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	2.3	2.3	2.2	1.8	2.3	2.4	2.2	2.4	2.3	
WELL PRESSURE	PSI	17.1	17.1	17.1	12.6	14.8	15.3	13.4	15.3	15.1	
WELL ID		B9									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.1	2.3	1.7	2.2	2.2	2.2	2.3	2.2	
WELL PRESSURE	PSI	2.1	2.1	14.9	12.7	14.6	19.8	21.9	14.2	14.7	
TOTAL INJECTION FLOW RATE			8.2	8.24	6.08	7.86	8.44	8.14	8.64	8.04	
EXTRACTION WELLS											
WELL ID		A6									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	0	0	0	1.6	1.7	1.6	1.1	1.1	1.3	
WELL PRESSURE	PSI	7.8	7.8	8.7	11.4	16.3	11.1	11.0	11.4	11.2	
WELL ID		A7									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	1.7	1.7	1.2	1.8	2.2	1.4	2.1	1.3	1.4	
WELL PRESSURE	PSI	4.6	4.6	3.4	2.4	3.2	3.2	3.1	3.3	3.4	
WELL ID		A8									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	2.5	2.5	2.1	0	0	0	0	0	0	
WELL PRESSURE	PSI	9.6	9.6	5.4	11.4	10.2	10.8	11.7	11.6	11.2	
WELL ID		A9									
TIME	hrs	1430	1000	1100	1200	1300	1500	1600	1700	1800	
FLOW RATE (Doppler Hand FM)	GPM	1.5	1.5	3.0	2.9	2.4	3.1	3.2	2.5	2.7	
WELL PRESSURE	PSI	5.8	5.8	4.9	4.1	5.1	5.1	4.8	5.2	5.3	
TOTAL EXTRACTION FLOW RATE	GPM	0.4	0.4	6.1	7.3	6.8	6.2	6.2	6.0	6.0	
TOTAL MOTIVE FLOW RATE	GPM	24.6	24.6	24.4	24.5	24.2	24.5	24.3	24.0	24.1	

GENERAL COMMENTS

- 1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.
- 2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS
- 3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.
- 4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.
- 5) ROI ASSUMED PER WELL = 10 FT
- 6) MOLE FRACTION EPSOM SALT TO SULFATE (SO4) = 0.4
- 7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29
- 8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT
- 9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS

extracted water turbidity @ 10:30 am : 22
 extracted water SO₄ non detect
 began by excluding A6 from extraction - switched to excluding A8
 extracted water turbidity @ 1600 pm 23
 extracted water SO₄ - 23 mg/L @ 1600

OPERATOR: John Gardner		NOTES extracted water SO ₄ @ 1400 = 1mg/L									
DATE: 10-24-19											
ZONE TREATED: 3											
BATCH NUMBER: 3.4											
SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS											
CHEMICAL FEED SYSTEM											
PARAMETER	UNIT	Batch 3				Batch 4					
QTY WATER IN SULFATE TANK	GAL	50	40	20	0	50	30	10	0		
LB EPSOM SALT ADDED	LB	47	47	47	47	47	30	10	0		
ARGON TANK PRESSURE	PSI	91	91	91	91	91	91	✓	✓		
SULFATE PUMP INSPECTION		✓	✓	✓	✓	✓	✓	✓	✓		
SULFATE FLOW RATE	GPM										
INJECTION WELLS											
WELL ID		B6									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.0	2.1	2.2	2.1	2.1	2.2	2.1		
WELL PRESSURE	PSI	20.3	15.8	15.2	8.8	14.0	14.3	15.6	15.2		
WELL ID		B7									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	2.4	2.8	2.1	2.2	2.4	2.2	2.4	2.1		
WELL PRESSURE	PSI	16.5	16.2	16.0	16.5	16.0	15.2	17.0	16.5		
WELL ID		B8									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.2	2.3	2.3	2.4	2.3	2.5	2.0		
WELL PRESSURE	PSI	16.7	13.0	12.8	13.3	12.9	13.1	18.9	15.1		
WELL ID		B9									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	2.3	2.5	2.6	2.2	2.5	2.4	2.4	2.2		
WELL PRESSURE	PSI	18.4	13.7	16.0	12.5	16.0	12.7	19.9	14.1		
TOTAL INJECTION FLOW RATE		8.02	8.20	8.3	8.90	8.34	8.86	8.04	8.74		
EXTRACTION WELLS											
WELL ID		A6									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	1.5	2.1	3.8	4.3	1.4	1.5	1.4	1.4		
WELL PRESSURE	PSI	11.8	11.3	12.3	12.1	12.1	12.2	12.1	12.2		
WELL ID		H7									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	1.5	1.7	2.18	2.5	2.4	2.1	2.2	2.3		
WELL PRESSURE	PSI	2.8	4.8	3.7	2.9	2.7	2.8	2.8	2.7		
WELL ID		A8									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	1.5	2.0	2.5	3.4	1.7	2.7	1.5	2.1		
WELL PRESSURE	PSI	0.7	10.2	10.2	10.3	10.4	6.8	10.6	6.5		
WELL ID		H9									
TIME	hrs	1000	1100	1200	1300	1400	1500	1600	1700		
FLOW RATE (Doppler Hand FM)	GPM	3.7	2.2	3.9	3.7	3.2	3.7	3.6	3.1		
WELL PRESSURE	PSI	4.1	6.7	4.7	7.7	4.0	3.8	3.9	3.8		
TOTAL EXTRACTION FLOW RATE	GPM	8.0	8.0	8.2	12.9	7.1	8.7	7.9	7.2		
TOTAL MOTIVE FLOW RATE	GPM	29.8	29.5	29.8	29.7	29.6	29.3	29.8	24.5		
GENERAL COMMENTS											
1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.											
2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS											
3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.											
4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.											
5) ROI ASSUMED PER WELL = 10 FT											
6) MOLE FRACTION EPSOM SALT TO SULFATE (SO ₄) = 0.4											
7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29											
8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT											
9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS											

Dark greasy chunks of material clog screen on motive line.
screen must be cleaned at end of each batch

OPERATOR: John Gardner		NOTES: 1100 am - extracted water SO ₄ 25 mg/L Supplemented with Process water all day -suspect cavitation produces an extraction							
DATE: 10-25-19									
ZONE TREATED: 3									
BATCH NUMBER: 5, 6									
SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS									
CHEMICAL FEED SYSTEM		Batch 5				Batch 6			
PARAMETER	UNIT								
QTY WATER IN SULFATE TANK	GAL	50	37	25	0	50	30	10	0
LB EPSOM SALT ADDED	LB	47	47	47	47	47	47	47	47
ARGON TANK PRESSURE	PSI	91	91	91	91	91	91	91	91
SULFATE PUMP INSPECTION									
SULFATE FLOW RATE	GPM								
INJECTION WELLS									
WELL ID		B-6							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	2.0	2.1	2.0	2.0	2.2	2.5	2.0	2.5
WELL PRESSURE	PSI	18.4	17.1	14.9	16.1	16.7	14.2	13.5	14.8
WELL ID		B-7							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	2.0	2.0	2.2	2.3	2.2	2.4	2.5	2.4
WELL PRESSURE	PSI	19.8	16.4	15.1	15.5	15.3	15.4	14.4	14.5
WELL ID		B-8							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.7	2.0	1.9	2.2	2.6	3.5	2.7
WELL PRESSURE	PSI	15.9	12.8	12.7	13.3	13.4	13.5	13.0	13.2
WELL ID		B-9							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.4	2.2	1.9	2.0	2.4	2.4	2.4
WELL PRESSURE	PSI	15.7	12.8	13.0	13.6	13.7	16.2	13.2	12.8
TOTAL INJECTION FLOW RATE		8.3	8.2	8.8	8.0	7.60	8.84	8.42	8.12
EXTRACTION WELLS									
WELL ID		A6							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	4.8	2.5	1.8	3.3	3.0	12.3	2	1
WELL PRESSURE	PSI	12.4	12.00	12.1	12.0	12.4	12.3	12.1	12.4
WELL ID		A7							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	2.6	2.2	2.9	2.8	2.6	2.7	2.6	1.8
WELL PRESSURE	PSI	2.9	2.4	2.7	2.7	2.7	2.7	2.7	2.3
WELL ID		A8							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	3.3	3.0	5.8	4.8	8.8	6.6	6.6	6.7
WELL PRESSURE	PSI	6.4	10.8	6.6	6.7	8.8	6.6	6.6	6.7
WELL ID		A9							
TIME	hrs	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
FLOW RATE (Doppler Hand FM)	GPM	4.3	3.6	3.4	3.6	3.0	3.1	2.6	2.9
WELL PRESSURE	PSI	4.0	3.8	15.7	3.4	3.3	3.2	3.1	3.1
TOTAL EXTRACTION FLOW RATE	GPM	89.1	9.5	8.5	8.8	8.4	8.1	7.6	7.8
TOTAL MOTIVE FLOW RATE	GPM	30.0	300	30.1	29.7	29.7	29.3	29.7	29.6
GENERAL COMMENTS									
1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.									
2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS									
3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.									
4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.									
5) ROI ASSUMED PER WELL = 10 FT									
6) MOLE FRACTION EPSOM SALT TO SULFATE (SO ₄) = 0.4									
7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29									
8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT									
9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS									

Suspect cavitation produces an extraction value higher than actual output

OPERATOR: John Gardner		NOTES	
DATE: 10/29/19			
ZONE TREATED: 3			
BATCH NUMBER: RINSE 7			
SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS			
CHEMICAL FEED SYSTEM			
PARAMETER	UNIT		
QTY WATER IN SULFATE TANK	GAL		
LB EPSOM SALT ADDED	LB		
ARGON TANK PRESSURE	PSI		
SULFATE PUMP INSPECTION			
SULFATE FLOW RATE	GPM		
INJECTION WELLS			
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
TOTAL INJECTION FLOW RATE			
EXTRACTION WELLS			
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
WELL ID			
TIME	hrs		
FLOW RATE (Doppler Hand FM)	GPM		
WELL PRESSURE	PSI		
TOTAL EXTRACTION FLOW RATE	GPM		
TOTAL MOTIVE FLOW RATE	GPM		
GENERAL COMMENTS			
1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.			
2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS			
3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.			
4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.			
5) ROI ASSUMED PER WELL = 10 FT			
6) MOLE FRACTION EPSOM SALT TO SULFATE (SO4) = 0.4			
7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29			
8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT			
9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS			

OPERATOR: <u>John Gardner</u>	NOTES extracted water SO ₄ concentration 100 mg/L @ 1030 10-29-18
DATE: <u>10-29-18</u>	
ZONE TREATED: <u>2</u>	
BATCH NUMBER: <u>1, 2</u>	

SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS

CHEMICAL FEED SYSTEM		Batch 1				Batch 2			
PARAMETER	UNIT								
QTY WATER IN SULFATE TANK	GAL	50	30.5	20	10.5	50	35	10	0
LB EPSOM SALT ADDED	LB	30				30			
ARGON TANK PRESSURE	PSI	90	90	90	90	90	90	90	90
SULFATE PUMP INSPECTION		✓	✓	✓	✓	✓	✓	✓	✓
SULFATE FLOW RATE	GPM								

INJECTION WELLS		Batch 1				Batch 2			
WELL ID									
TIME	hrs	1030	1130	1230	1330	1030	1136	1230	1330
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.4	2.3	2.3	2.3	2.3	2.4	2.3
WELL PRESSURE	PSI	14.9	14.8	14.9	14.2	14.6	15.8	15.6	13.6
WELL ID									
TIME	hrs	1030	1130	1230	1330	1030	1136	1230	1330
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.5	2.5	2.4	2.3	2.3	2.4	2.3
WELL PRESSURE	PSI	11.7	12.5	14.2	14.2	15.9	11.9	12.0	12.1
WELL ID									
TIME	hrs	1030	1130	1230	1330	1030	1136	1230	1330
FLOW RATE (Doppler Hand FM)	GPM	2.1	2.0	2.5	2.5	2.2	2.3	2.5	2.4
WELL PRESSURE	PSI	12.0	14.1	14.1	13.5	15.9	12.6	12.2	12.3
WELL ID									
TIME	hrs	1030							
FLOW RATE (Doppler Hand FM)	GPM								
WELL PRESSURE	PSI								
TOTAL INJECTION FLOW RATE		6.3	6.4	6.04	6.10	6.18	6.24	6.08	6.36

EXTRACTION WELLS		Batch 1				Batch 2			
WELL ID									
TIME	hrs	1030	1136	1230	1330				
FLOW RATE (Doppler Hand FM)	GPM	2.2	2.5	2.5	2.2				
WELL PRESSURE	PSI	9.7	9.7	9.7	9.7				
WELL ID									
TIME	hrs	1030	1136	1230	1330				
FLOW RATE (Doppler Hand FM)	GPM	2.3	1.7	1.5	1.3				
WELL PRESSURE	PSI	6.8	7.0	7.0	7.2				
WELL ID									
TIME	hrs	1030	1130	1230	1330				
FLOW RATE (Doppler Hand FM)	GPM	2.3	2.5	3.2	3.0				
WELL PRESSURE	PSI	9.7	9.6	9.7	9.8				
WELL ID									
TIME	hrs								
FLOW RATE (Doppler Hand FM)	GPM								
WELL PRESSURE	PSI								
TOTAL EXTRACTION FLOW RATE	GPM	6.3	6.2	6.3	6.4				
TOTAL MOTIVE FLOW RATE	GPM	22.5	22.6	22.6	22.5	23.5	23.5	23.4	23.3

- GENERAL COMMENTS
- 1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.
 - 2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS
 - 3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.
 - 4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.
 - 5) ROI ASSUMED PER WELL = 10 FT
 - 6) MOLE FRACTION EPSOM SALT TO SULFATE (SO₄) = 0.4
 - 7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29
 - 8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT
 - 9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS

Process Water

@ 1430 extracted water SO₄ concentration exceeded 1600 mg/L
confirming excessive communication below ground

OPERATOR: John Gardner		NOTES							
DATE: 10-30-19, 10-31-19									
ZONE TREATED: 2									
BATCH NUMBER: 3, 4									
SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS									
CHEMICAL FEED SYSTEM		Batch 3				Batch 4			
PARAMETER	UNIT								
QTY WATER IN SULFATE TANK	GAL	50	30	10	0	50	30	10	0
LB EPSOM SALT ADDED	LB	30	30	10	0	30	30	10	0
ARGON TANK PRESSURE	PSI	90	90	90	0	90	90	90	9
SULFATE PUMP INSPECTION		✓	✓	✓	✓	✓	✓	✓	✓
SULFATE FLOW RATE	GPM								
INJECTION WELLS									
WELL ID		B3							
TIME	hrs	1430	1530	1630	1730	1030	1130	1230	1330
FLOW RATE (Doppler Hand FM)	GPM	2.4	2.5	2.3	2.2	2.4	2.0	2.4	2.3
WELL PRESSURE	PSI	14.1	12.4	12.1	12.2	16.1	14.4	12.4	11.9
WELL ID		B4							
TIME	hrs	1430	1530	1630	1730	1030	1130	1230	1330
FLOW RATE (Doppler Hand FM)	GPM	2.4	2.3	2.4	2.2	2.4	2.4	2.3	2.3
WELL PRESSURE	PSI	12.3	12.4	12.6	12.5	13.6	12.4	12.3	12.3
WELL ID		B5							
TIME	hrs	1430	1530	1630	1730	1030	1130	1230	1330
FLOW RATE (Doppler Hand FM)	GPM	2.5	2.3	2.2	2.0	2.4	2.3	2.2	2.4
WELL PRESSURE	PSI	12.1	12.1	11.9	11.8	17.1	12.2	12.2	12.3
WELL ID									
TIME	hrs	1430							
FLOW RATE (Doppler Hand FM)	GPM								
WELL PRESSURE	PSI								
TOTAL INJECTION FLOW RATE		6.00	6.18	6.54	6.14	6.84	6.54	6.02	6.60
EXTRACTION WELLS									
WELL ID									
TIME	hrs								
FLOW RATE (Doppler Hand FM)	GPM								
WELL PRESSURE	PSI								
WELL ID									
TIME	hrs								
FLOW RATE (Doppler Hand FM)	GPM								
WELL PRESSURE	PSI								
WELL ID									
TIME	hrs								
FLOW RATE (Doppler Hand FM)	GPM								
WELL PRESSURE	PSI								
TOTAL EXTRACTION FLOW RATE									
TOTAL MOTIVE FLOW RATE		23.0	23.3	23.5	23.4	23.4	23.4	23.6	23.4
GENERAL COMMENTS									
1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.									
2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS									
3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.									
4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.									
5) ROI ASSUMED PER WELL = 10 FT									
6) MOLE FRACTION EPSOM SALT TO SULFATE (SO4) = 0.4									
7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29									
8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT									
9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS									

OPERATOR: John Gardner	NOTES Water Supply remains an ongoing issue, Final holding tank level is often too low for irrigation pump to draw from.
DATE: 10-31-18, 11-1-19	
ZONE TREATED: 2	
BATCH NUMBER: 5, 6	

SHALLOW GROUNDWATER TREATMENT SYSTEM PRE-INJECTION TEST PARAMETERS										
CHEMICAL FEED SYSTEM		Batch 5 10-31-18				Batch 6 11-1-19				
PARAMETER	UNIT									
QTY WATER IN SULFATE TANK	GAL	50	30	10	0	50	30	10	0	
LB EPSOM SALT ADDED	LB	30				30				
ARON TANK PRESSURE	PSI	85	90	88	—	89	90	89	—	
SULFATE PUMP INSPECTION		✓	✓	✓	✓	✓	✓	✓	✓	
SULFATE FLOW RATE	GPM									
INJECTION WELLS										
WELL ID		W123	1500	1600	1700	1800	1000	1100	1200	1300
TIME	hrs	4:30					10:00	11:00	12:00	13:00
FLOW RATE (Doppler Hand FM)	GPM	2.4	2.3	2.3	2.3	2.4	2.4	2.5	2.2	2.2
WELL PRESSURE	PSI	16.0	12.7	12.4	12.7	16.4	15.7	13.0	16.5	
WELL ID		W4	1500	1600	1700	1800				
TIME	hrs	4:30					10:00	11:00	12:00	13:00
FLOW RATE (Doppler Hand FM)	GPM	2.3	2.4	2.4	2.5	2.4	2.4	2.5	2.2	2.3
WELL PRESSURE	PSI	15.8	13.8	13.3	13.0	16.4	16.2	13.4	17.0	
WELL ID		W5	1500	1600	1700	1800				
TIME	hrs	4:30					10:00	11:00	12:00	13:00
FLOW RATE (Doppler Hand FM)	GPM	2.4	2.2	2.3	2.4	2.4	2.4	2.3	2.3	2.3
WELL PRESSURE	PSI	16.2	14.1	13.8	14.0	15.8	16.3	14.5	16.4	
WELL ID										
TIME	hrs	1								
FLOW RATE (Doppler Hand FM)	GPM									
WELL PRESSURE	PSI									
TOTAL INJECTION FLOW RATE			6.24	6.10	6.75	6.23	6.24	6.28	6.24	7.07
EXTRACTION WELLS										
WELL ID										
TIME	hrs									
FLOW RATE (Doppler Hand FM)	GPM									
WELL PRESSURE	PSI									
WELL ID										
TIME	hrs									
FLOW RATE (Doppler Hand FM)	GPM									
WELL PRESSURE	PSI									
WELL ID										
TIME	hrs									
FLOW RATE (Doppler Hand FM)	GPM									
WELL PRESSURE	PSI									
WELL ID										
TIME	hrs									
FLOW RATE (Doppler Hand FM)	GPM									
WELL PRESSURE	PSI									
TOTAL EXTRACTION FLOW RATE										
TOTAL MOTIVE FLOW RATE										

- GENERAL COMMENTS
- 1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.
 - 2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS
 - 3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.
 - 4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.
 - 5) ROI ASSUMED PER WELL = 10 FT
 - 6) MOLE FRACTION EPSOM SALT TO SULFATE (SO₄) = 0.4
 - 7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29
 - 8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT
 - 9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS

water plumbed from bottom of large effluent tank - Gravity fed into zone 2 EQ tank

OPERATOR: <u>John Gardner</u>		NOTES			
DATE: <u>11-1-19</u>		<u>Rinse cycle - no amendment</u>			
ZONE TREATED: <u>2</u>					
BATCH NUMBER: <u>7</u>					
SHALLOW GROUNDWATER TREATMENT SYSTEM PRE - INJECTION TEST PARAMETERS					
CHEMICAL FEED SYSTEM					
PARAMETER	UNIT				
QTY WATER IN SULFATE TANK	GAL				
LB EPSOM SALT ADDED	LB				
ARGON TANK PRESSURE	PSI				
SULFATE PUMP INSPECTION					
SULFATE FLOW RATE	GPM				
INJECTION WELLS					
WELL ID		<u>B3</u>			
TIME	hrs	<u>1400</u>	<u>1500</u>	<u>1600</u>	<u>1700</u>
FLOW RATE (Doppler Hand FM)	GPM	<u>2.2</u>	<u>2.3</u>	<u>2.1</u>	<u>2.1</u>
WELL PRESSURE	PSI	<u>14.8</u>	<u>14.2</u>	<u>14.0</u>	<u>13.8</u>
WELL ID		<u>B4</u>			
TIME	hrs	<u>1400</u>	<u>1500</u>	<u>1600</u>	<u>1700</u>
FLOW RATE (Doppler Hand FM)	GPM	<u>2.2</u>	<u>2.4</u>	<u>2.1</u>	<u>2.1</u>
WELL PRESSURE	PSI	<u>12.1</u>	<u>12.5</u>	<u>12.1</u>	<u>12.0</u>
WELL ID		<u>B5</u>			
TIME	hrs	<u>1400</u>	<u>1500</u>	<u>1600</u>	<u>1700</u>
FLOW RATE (Doppler Hand FM)	GPM	<u>2.1</u>	<u>2.3</u>	<u>2.1</u>	<u>2.1</u>
WELL PRESSURE	PSI	<u>15.7</u>	<u>15.0</u>	<u>13.9</u>	<u>13.5</u>
WELL ID					
TIME	hrs				
FLOW RATE (Doppler Hand FM)	GPM				
WELL PRESSURE	PSI				
TOTAL INJECTION FLOW RATE		<u>6.17</u>	<u>6.18</u>	<u>6.38</u>	<u>5.94</u>
EXTRACTION WELLS					
WELL ID					
TIME	hrs				
FLOW RATE (Doppler Hand FM)	GPM				
WELL PRESSURE	PSI				
WELL ID					
TIME	hrs				
FLOW RATE (Doppler Hand FM)	GPM				
WELL PRESSURE	PSI				
WELL ID					
TIME	hrs				
FLOW RATE (Doppler Hand FM)	GPM				
WELL PRESSURE	PSI				
WELL ID					
TIME	hrs				
FLOW RATE (Doppler Hand FM)	GPM				
WELL PRESSURE	PSI				
TOTAL EXTRACTION FLOW RATE		<u>23.5</u>	<u>23.5</u>	<u>23.7</u>	<u>23.7</u>
TOTAL MOTIVE FLOW RATE					
GENERAL COMMENTS					
1) DESIRED SULFATE CONCENTRATION PER WELL IS 200 MG/L. COLLECT BASELINE GROUNDWATER PARAMETERS PRIOR TO INJECTION.					
2) LBS OF EPSOM SALT REQUIRED PER WELL TO ACHIEVE 200 MG/L IS APPROXIMATELY 30LBS					
3) 30LBS OF EPSOM SALT SHOULD BE ADDED PER 50 GALLON BATCH.					
4) END OF DAY OPERATIONS SHOULD INCLUDE RECIRCULATION OF WATER WITHOUT ADDITION OF SULFATE TO FLUSH SAND PACK 1-2 HOURS MIN.					
5) ROI ASSUMED PER WELL = 10 FT					
6) MOLE FRACTION EPSOM SALT TO SULFATE (SO4) = 0.4					
7) ASSUMED SOIL POROSITY BASED ON SILT MATERIAL = 0.29					
8) TREATMENT ZONE DEPTH = WELL SCREEN DEPTH = 10FT					
9) AFTER COMPLETING THE REQUIREMENTS OF COMMENT 2 TEST ALL WELLS IN ZONE FOR SULFATE AND GROUNDWATER PARAMETERS					