CLAREMONT POLYCHEMICAL SUPERFUND SITE
Groundwater Treatment System
Old Bethpage, New York

MONTHLY REPORT
of the
Operations & Maintenance Activities
During
January 2013

WA D006130-19
SITE # 130015

Prepared for the:

New York State Department of Environmental Conservation

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Prepared: February 6, 2013

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ACRONYMS AND ABBREVIATIONS

AS	air stripping
ASF	air stripper feed
CA	carbon adsorber
CLP	contract laboratories program
DBA	doing business as
DOSR	daily operations summary report
DTW	depth to water
gpd	gallons per day
gpm	gallons per minute
GW	groundwater
GWTP	groundwater treatment plant
GWTS	groundwater extraction, treatment, and reinjection system
HCl	hydrochloric acid
HMI	human-machine interface
HRP	HRP Associates, Inc. dba HRP Engineering, P.C.
HVAC	heating, ventilation, and air conditioning
IG	infiltration gallery
IW	injection well
LGAC, LCA	Liquid phase granular activated carbon
LTRA	Long Term Response Action
MCC	motor control cabinet
MCP	master (main) control panel
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
PDB	Passive Diffusion Bags
PD	plant discharge
PID	photo ionization detector
PLC	programmable logic controller
psi	pressure in pounds per square inch
PW	process water
SAIC	Science Applications International Corporation
SAP	sampling and analysis plan
SOP	standard operating procedure
SSHP	site safety and health plan
USACE	United States Army Corps of Engineers
VGAC, VCA	vapor-phase granular activated carbon
VFD	variable frequency drive
VOCs	volatile organic compounds

1.0 OPERATION AND MAINTENANCE ACTIVITIES

HRP Associates, Inc. dba HRP Engineering, P.C. (HRP) continued its daily operation and maintenance (O&M) of the Claremont Polychemical Superfund Site and its groundwater treatment system (GWTS) during January 2013. This period is defined as 0600 hours, January 1, 2013, through 0600 hours, February 1, 2013. O&M conducted during this reporting period was performed in accordance with the site O&M Manual.

The plant and grounds were maintained for the 31 days in this reporting period although the treatment system was off line for the whole time.

During this shutdown, readings of key process parameters were recorded as necessary. These readings were used to monitor various plant maintenance operations. These readings were recorded in the Daily Database which is an electronic file maintained in the monthly operating data folders.

At the end of this report is a list of the manuals, logs, reports, and databases maintained by the treatment plant. The locations of these documents are included.

1.1 Daily Operations Summary Reports

The daily operation of the GWTS is documented in the Daily Operations Summary Reports (DOSR). The DOSRs include a summary of the daily O&M activities and are based on the daily operating logs and worksheets. These worksheets include:

Daily Operating Log – process meter readings (CPS-Form-008)
Daily Activities Summary Report - plant operator activities (CPS-Form-007)
Daily Site Safety Inspection – Site checklist for unsafe conditions (CPS-Form-009)
Employee Sign-In Sheet – employee log in (CPS-Form-11)

1.2 Summary of Maintenance Activities

Maintenance of the treatment system and associated equipment is performed in accordance with the Claremont Groundwater Treatment System O&M Manual. Routine activities and equipment function tests completed during this reporting period are summarized in the Monthly Maintenance Log. This report is electronically filed and is available for review.

System maintenance incorporates the equipment manufacturers' recommendations, operations experience, and good engineering and maintenance practices. A detailed accounting of daily operation and maintenance activities is provided in the plant operator's daily logbook, the site supervisor's daily logbook, the operator's daily activities summary reports, and the site supervisor's daily plant activity notes.

Significant maintenance activities completed during this reporting period included the following:

- Scheduled routine monthly tasks which included injection well (IW) depth soundings, IW falling head tests, valve function tests, comprehensive site inspections, and infiltration gallery readings.
- Outdoor site maintenance was performed as needed. This included various clean up tasks and grounds keeping.
- The sample ports at point 07A and 07B were reamed out and cleared
- The sludge transfer and sludge recycle pumps for both clarifiers were tested. The sludge was pumped to the sludge holding tank.
- Repairs were made on the air sample ports on the Air Stripper discharge ducts.
- The well pump for EX-3 was moved to a more secure area.
- The AS Tower was opened at the second level for inspection of the media and the diffuser. Both were coated but there were no algae or blockages.
- The sludge holding tank was emptied through the press to the settling tanks.
- The plant heater is not operating. Work was done unsuccessfully to diagnose the problem.
- Replacement lamps were installed in select exit lights.
- The motor for ASF P3 was replaced with the old motor form P2 (originally removed June ’11). The pump was tested but not operated under load.
- The M-4 sludge pump was removed from the sludge tank and rebuilt. It is functional and will be used where needed.
- The snow plow was installed on the plant truck and tested.
- A control room chair was repaired.
- PM was performed on the air compressor. The P2 low oil lamp was lit.
- The plant discharge flow sensor (Mag-Meter) was removed and cleaned of a sludge coating. The local piping was also cleaned where possible.
- Stationary ladders were retrofitted and installed at the VAC vessels.
- The air driven actuators were removed from the settling tank discharge valves.
- Vines and overgrowth were removed from the front gate, adjacent fence, and power and cable lines. A support piece was installed to elevate the low hanging Verizon cable.
- Heat tracing for the outdoor sump discharge piping was activated.
- Settling tank -1 was emptied and the nozzles were extensively cleaned.
- The well sounding probe was rebuilt.
- The NE exit emergency light was repaired.
- Drive over covers for the EW-6 wells were fabricated.

2.0 MAINTENANCE LOGS

The following operating logbooks are currently in use:

- Well Maintenance Field Log CL-28

- Sampling support Field Log CL-37
- Site Supervisor's Daily Log CL-45
- Plant Operator's Daily Log CL-44

40 completed logbooks are in the process of being scanned and delivered to the NYSDEC. All of the logbooks are identified on a master logbook inventory control file and are routinely checked as part of the site quality control program.

3.0 TECHNICAL SUPPORT ACTIVITIES

3.1 HRP Personnel

- There were no HRP personnel at the GWTP during this period.

3.2 NYSDEC Personnel, sub-contractors and other visitors

- LIPA was on site to get information on power connections to the old plant.
- Plainview Water was in to look at the plant sprinkler system connections.
- Superweld Co. was in to look at the tank repair job.
- Mets was in to empty the dumpster

3.3 Deliveries

- Mail was delivered 4 times
- UPS delivered the McMaster-Carr order

4.0 HEALTH AND SAFETY

Work at the Claremont Polychemical groundwater treatment plant (GWTP) was conducted in accordance with the approved Site Safety and Health Plan (SSHP). Site safety inspections were performed daily and the reports are filed on-site. In addition to the daily safety inspections, comprehensive safety inspections were performed twice in January. These worksheets are also on file.

The extraction well pump motor controllers and power supplies were locked and tagged out (LOTO). The modules remain locked out.

No safety incidents or accidents occurred during this January 2013 period.

5.0 PLANNED ACTIVITIES AND SCHEDULES

The status of project work and significant corrective maintenance activities is updated on a monthly basis. This status of plant conditions and concerns was updated January 29 and is electronically filed. It can be found at the end of this report as Table 12-1 – Claremont Corrective Action Summary.

Separate tentative schedules for equipment maintenance events are shown in the O&M Manual and the Sampling and Analysis Plan (SAP).

Currently, the GWTS is off line. It will remain in this mode until the extraction well pumps are re-installed and re-activated. This will be scheduled when an optimized water extraction plan has been developed.

One of the major corrective actions to be undertaken during this shutdown is the welding repairs to LCA vessels 1 and 2 and to the EQ tank. These repairs have been approved and are tentatively scheduled for mid February.

6.0 MONITORING WELL WATER ELEVATIONS

The well system water level elevation data-table was updated after the December quarterly groundwater sampling event. This database is available for review. The water level elevation data is included in the quarterly groundwater monitoring report. The next table update will occur after the next quarterly sample collection.

Due to the stabilized nature of PDB samples, the water quality data will no longer be recorded.

7.0 TREATMENT SYSTEM FLOWS

The volume of treated water discharged by the treatment plant to the injection well field is determined daily from readings of the magnetic flow meter on the plant effluent line. A summary of these meter readings is provided in Table 7-1. The total volume of treated water discharged in January, as measured from 0600 hours on January 1, 2013, to 0600 hours on February 1, 2013, was ~30,000 gallons. As the treatment system was off line for all of January, this water was discharged during maintenance tasks.

The cumulative volume of water discharged for this contract year (June 1, 2012 to present) was 93,525,749 and is ~20 % below target. A graphic representation of the daily system flows are provided in Figure 14-1. (Targeted goals are based on a treated water discharge rate of 335 gpm.)

In January, the plant discharge flow averaged 1 gallons per minute (gpm) and 968 gallons per day (gpd).

Month	Flow Average (gpm)	Volume Discharged (gpd)
June	380	546,715
July	357	513,599
August	344	495,778
September	338	487,288
October	320	460,217
November	343	493,409
December	47	68,313
January '13	1	968
Goal	**335**	**482,400**

The flow monitoring units for the individual IW systems and infiltration galleries are fully functioning. This allows for reading the flow rate and volume discharged to each system. As indicated above, there was little to no discharge in January.

Both galleries are draining adequately. The plant's total effluent discharge is limited by plumbing constraints, by injection pump capacity and the ability of the wells to accept water.

8.0 CHEMICAL CONSUMPTION

The four chemical feed systems are offline, and their future use is not anticipated. The systems are periodically tested and are operational. With the exception of the permanganate feed tank, the chemical feed tanks and feed tubing contain water for testing and inspection purposes. Currently the KMnO4 tank needs a repair to a cracked drain nozzle.

There are no bulk chemicals onsite.

9.0 CARBON SYSTEMS

9.1 Aqueous-Phase Carbon

The presence of volatile or semi volatile organic compounds have not been detected in the discharge streams of the liquid-phase Carbon Adsorber (LCA) vessels. The influent and effluent streams of the vessels continue to be monitored on a quarterly basis.

As part of the daily monitoring task, the differential pressure across each vessel is recorded. This data and the discharge pressure readings of the LCA feed pumps determine if the vessels require backwashing. The vessels were extensively backwashed in December as part of the shut down tasks.

No carbon has been added to the vessels.

9.2 Vapor-Phase Carbon

Two vapor-phase Carbon Adsorber vessels (VCA) are available for the off gas treatment of the air stripping (AS) stream. Currently, VCA-1 is the on-line vessel and VCA-2, while offline is ready for service. Monitoring of VOCs in the influent and effluent air stream of the active vessel will continue when the system is back on line.

No spent vapor-phase carbon was generated during this period, and no carbon was added to the vessels.

10.0 WASTE DISPOSAL

Currently, there are 7 metal drums of non-hazardous carbon waste stored inside the facility. There is no hazardous waste onsite. There was no waste removed from the facility in January.

11.0 MONTHLY DISCHARGE MONITORING REPORT

The plant is currently operating under an equivalency permit from the New York State Department of Environmental Conservation (NYSDEC). While the permit requires periodic submittal of discharge monitoring results, monthly discharge monitoring reporting is not required. A review of the monthly discharge analytical results, which are included within Section 14.0, indicated all analyzed parameters were below noted permit limits.

The plant's water discharge permit expires December 31, 2013.

12.0 OTHER OPERATIONS, MAINTENANCE, OR MANAGEMENT ISSUES

The GWTS is currently offline. The extraction well pumps have not been scheduled for re-installation. The plant start-up will depend on the operation of the pumps.

The tank repair project has been approved and is scheduled to start in mid-February.

East End Renewables along with SUNY Farmingdale is planning to install solar panel arrays on ~10 acres in the wellfield. Discussions have included required setbacks and access to the monitoring wells, injection wells, and infiltration galleries.

The plant heater is not operating correctly. Attempts to determine the problem have not been successful. Outside expertise may be required.

Other on-going plant maintenance issues are summarized on Table 12-1.

13.0 PLANT DOCUMENTS

Procedures and standard forms are written, reviewed, and revised as needed. During January, the following changes were made:

- The Corrective Action Status Report (Table 12-1) was created by combining the Action Item List, Project Status Report, and Corrective Actions documents.
- Well description logs were revised with new data for the NYSDEC EDD submittal documents.

14.0 TREATMENT PLANT AND WELL FIELD MONITORING RESULTS

The Claremont Polychemical GWTS is monitored through the analysis of off-site laboratory analytical data and on-site field data.

14.1 Off-site Analytical Data Results

Monthly plant discharge (PD) samples are taken for organic analysis in compliance with the NYSDEC discharge permit. Quarterly groundwater (GW) samples are taken for organic analysis, and quarterly process water (PW) samples are taken for organic, inorganic, and generic analysis. In January, there was no sampling activity. However:

- Analytical data was submitted to NYSDEC for the Dec ’12 PD samples.
- Analytical data was submitted to NYSDEC for the Dec ’12 EX samples.
- Analytical data was re-submitted to NYSDEC for the Nov ’12 PD, Dec ’12 PD and Dec ’12 GW samples.

The December 12 plant discharge sample results follow:

Plant Discharge			
Parameters	**Discharge Limitations**	**Units**	**Results Dec.‘12**
pH (range)	5.5 – 8.5	SU	6.11
Tetrachloroethylene	5	ug/l	U
Trichloroethylene	5	ug/l	U
1,2-(cis) Dichloroethylene	5	ug/l	U
1,2-(trans)Dichloroethylene	5	ug/l	U
Methylene Chloride	5	ug/l	U
1.1 Dichloroethylene	5	ug/l	U
1,1-Dichloroethane	5	ug/l	U
Chloroform	7	ug/l	U
1,1,1-Trichloroethane	5	ug/l	U
Benzene	0.7	ug/l	U
Toluene	5	ug/l	U

Chlorobenzene	5	ug/l	U
Ethylbenzene	5	ug/l	U
Bis(2-ethylhexyl)phthalate	4200	ug/l	U
Di-n-butyl phthalate	770	ug/l	U
Antimony, Total recoverable	3	ug/l	NS
Arsenic, Total recoverable	50	ug/l	NS
Barium, Total recoverable	2000	ug/l	NS
Lead, Total recoverable	50	ug/l	NS
Selenium, Total recoverable	40	ug/l	NS
Iron, Total recoverable	500	ug/l	NS
Manganese, Total recoverable	500	ug/l	NS
Nitrogen, Total (as N)	10	mg/l	NS
Solids, Total Dissolved	1000	mg/l	NS
Chromium, Hexavalent	100	ug/l	NS
Chloride Ion	NL	mg/l	NS
Fluoride Ion	NL	mg/l	NS
Sulfate Ion	NL	mg/l	NS

NS not sampled
U analyzed for but not detected
J estimated value
NL monitor only

14.2 Field Data

Treatment plant effluent is monitored for pH and temperature on a weekly basis in order to obtain a monthly average in compliance with the NYSDEC discharge permit requirements. These readings are obtained from discharge samples taken from a controlled point with calibrated portable meters. The plant was offline during January. One reading was taken from water remaining in the system.

Date	pH	Temperature (°C)
January 28, 2013	6.35	5

The NYSDEC discharge permit requires the plant discharge to have an average monthly pH greater than 5.50. The treatment plant effluent pH averaged 6.35 in January and met the monthly average pH discharge requirement. A graph of the plant discharge monthly pH average trend over several months is provided in Table 14-1.

Normally weekly air monitoring readings are taken with a PID of the influent and effluent air streams of the active vapor phase carbon adsorber vessel following the air stripping tower. Both vessels have been offline for all of January. The plant PID readings will resume once the plant is operational

Measurements to determine the well depth from the top of the injection well column to the bottom were taken on 1/29/13. A summary of the historical data is included in Table 14-2. Although there has been an accumulation of sediment in all four injection wells, the wells

currently appear to be stable. IW-1 is the most severe case, with the influx of sand accounting for more than 100 feet of sediment in the bottom of the well. The total sediment accumulation in IW-2 is ~ 40 feet.

Water elevations in the IWs are normally recorded on a daily basis as is the daily total flow discharged to the well field. These are depicted in Figure 14-1. The IW levels were generally steady while the pumps are active. With the exception of IW-1, the transducers in IW-2, IW-3, and IW-4 are producing unreliable signals. The water levels are physically monitored more frequently. On 1/29/13 the DTW readings for the injection wells were recorded.

	Sounding Depth (ft)	Transducer	Depth to Water (ft)
IW-1	145.90	68.3	99.24
IW-2	200.80	NR	99.95
IW-3	247.78	108.9	100.62
IW-4	196.78	106.5	100.73

The injection well falling head test was not performed in January. A graphic representation of the time required to drop the water level to a static condition is presented in Figure 14-2 for the December test. Comparisons of baseline data from March 2006 to that of recent tests (Figure 14-3) indicate that the performance of IW-1 is unchanged. All wells appear to be draining adequately.

Other routine data collected during January included:

- The plant sound level readings were recorded twice (1/14, 1/25), (included with daily worksheets).
- The flow-meter readings and the depth of water in the infiltration galleries were recorded in site supervisor's notebook and included with the monthly filings. (1/29)
- Weekly utility meter readings were recorded.
- The plant air was sampled.

15.0 PROCESS ANALYSIS, INTERPRETATIONS, AND CONCLUSIONS

For all of January, the GWTS was off line. All process pumps were shut off during this period but were operated manually if necessary.

15.1 Extraction and Influent Processes

- The three extraction well pumps were removed from the wells 12/6.
- The 3 extraction well flow monitors were cleaned and are fully functional.
- There are two pin-hole leaks were in the EQ tank side wall. The EQ tank was emptied for the repairs.

- The three influent pumps are operational but off-line.
- There continues to be some drift in the flow control signal to influent pump-1.
- The 2 influent flow controllers are fully functional.
- Routine maintenance continues.

15.2 Flow through Aeration Process

- Both treatment trains are currently off line.
- The polymer, potassium permanganate, caustic, and hydrochloric acid feed systems remain out of service as current water conditions make their use unnecessary.
- The flash and flocculation mixers at the clarifiers remain idle due to the discontinued use of the polymer and lack of solids generation.
- The reaction tanks and clarifier systems are off line.

15.3 Settling Filter Process

- The system is fully functional but offline.
- Extensive cleaning has commenced on the tanks and fixtures.

15.4 Air Stripping Process

- The three ASF pumps are off line
- The VFD for ASF P2 continues to exhibit an earth ground fault. When on-line, Pump 2 operates through the off line pump's VFD.
- The motor on P3 was replaced.
- The vapor phase carbon beds are drained of condensate as necessary.
- The blower is fully functional. It is also offline.
- The AS air sample ports were reinforced.
- Access ladders were installed at the carbon vessels
- Routine maintenance continues.

15.5 Aqueous-Phase Carbon Treatment Process

- All three feed pumps are offline.
- Several additional pin-hole leaks in the LCA tank side walls have been observed. They appear stable but will be repaired.
- Other routine maintenance tasks continued.

15.6 Treated Water Injection Process

The plant's total discharge flow rate and volume are measured by a magnetic flow meter on the injection pump discharge manifold. The paddle wheel flow sensors and flow transmitters installed in the discharge line to each injection well system are on-line and connected to the

MCP and HMI. The turbine flow meters in the infiltration gallery valve boxes are fully functional.

- The plant discharge system is offline but fully operational.
- All three INJ pumps are functional.
- There is a leak in the pump discharge manifold prior to the plant effluent flow sensor. This leak is minor and no action is required.
- Except for IW-1, the injection well transducers are all producing unreliable signals.
- The PD flow meter was removed and cleaned.
- The galleries are adequately draining.
- Routine maintenance tasks continue.

16.0 GROUNDS

Routine maintenance tasks continue outside the plant. This includes weather related clean up tasks and landscaping duties and well maintenance.

16.1 Plant Perimeter

- General outdoor clean up continues. Including wind-blown debris.
- The repaired plow pump was reinstalled on the truck. It was tested and is operational.

16.2 Well Field

- The extraction well pumps, pipes and fixtures were removed from the wells. EX P3 was moved to a more secure location.
- The well areas are routinely inspected.

16.3 Other

- The monthly in-house inspection of the plant truck was completed (1/3 and 1/28).
- Miscellaneous trips for local purchases were made.

There were no other significant issues outside the plant. Routine maintenance continues.

FIGURES

Figure 14-1 Injection Well Elevations and Daily Flow

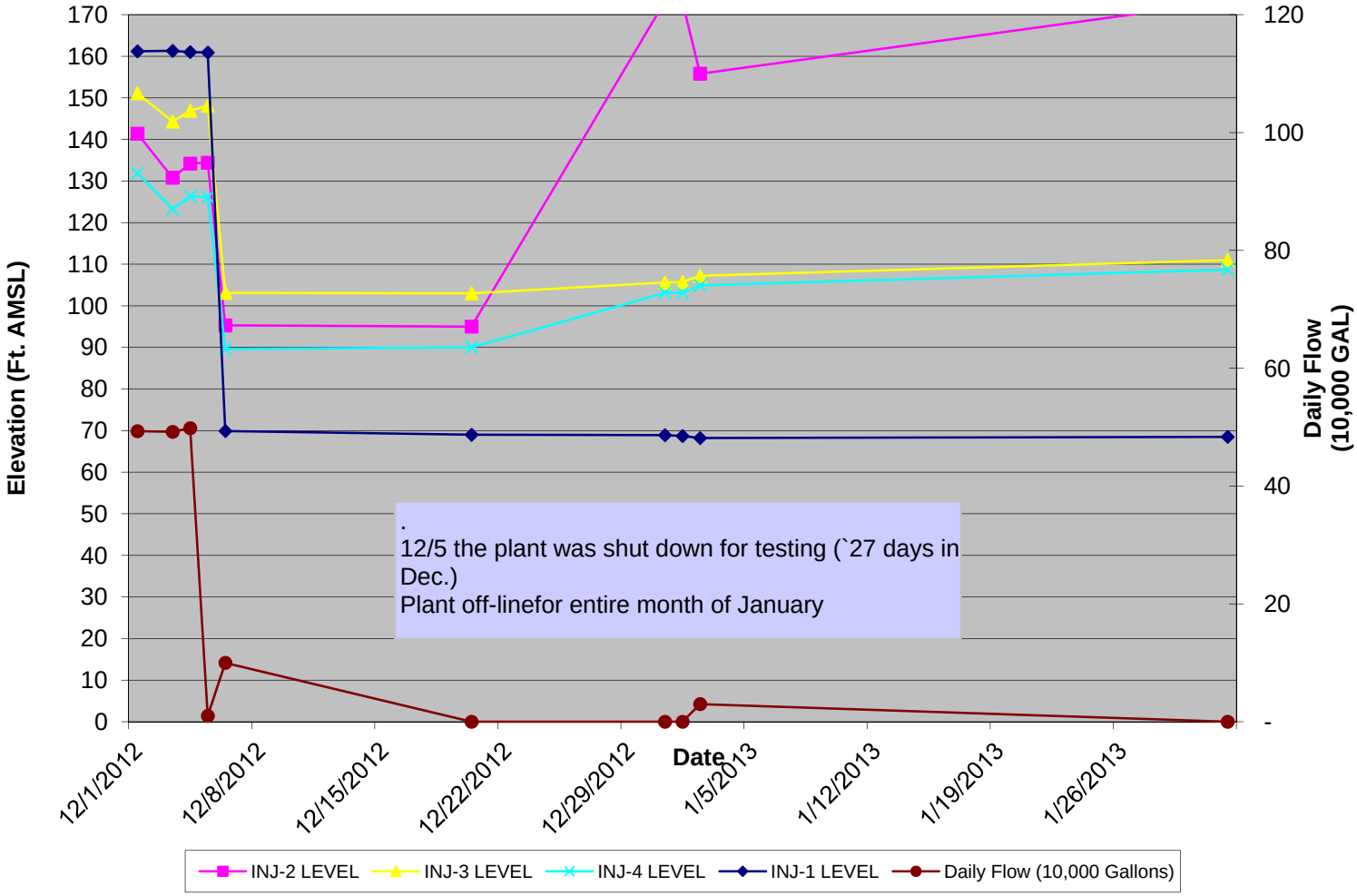


Figure 14-2 Injection Well Falling Head Test - December 19, 2012

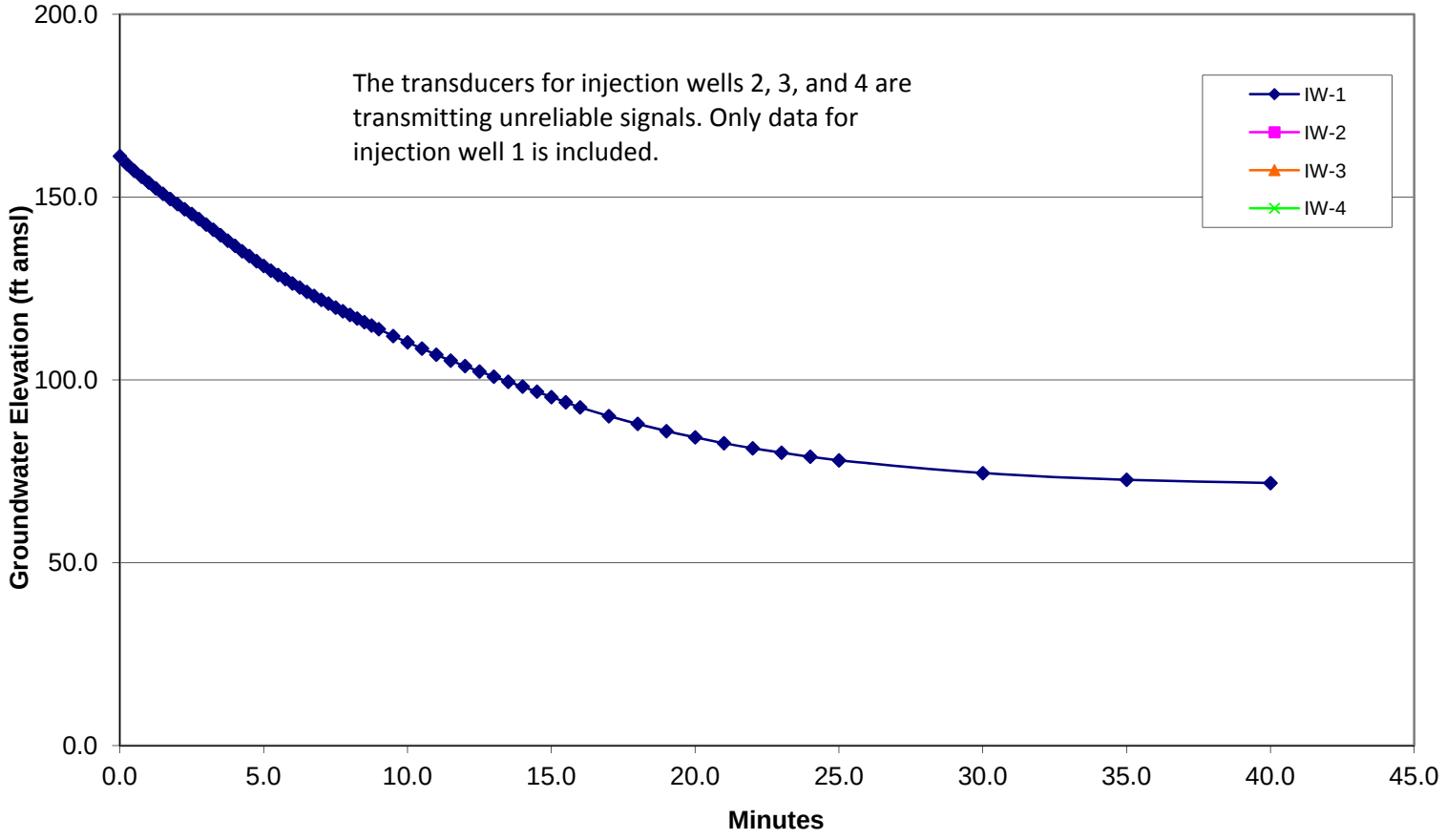
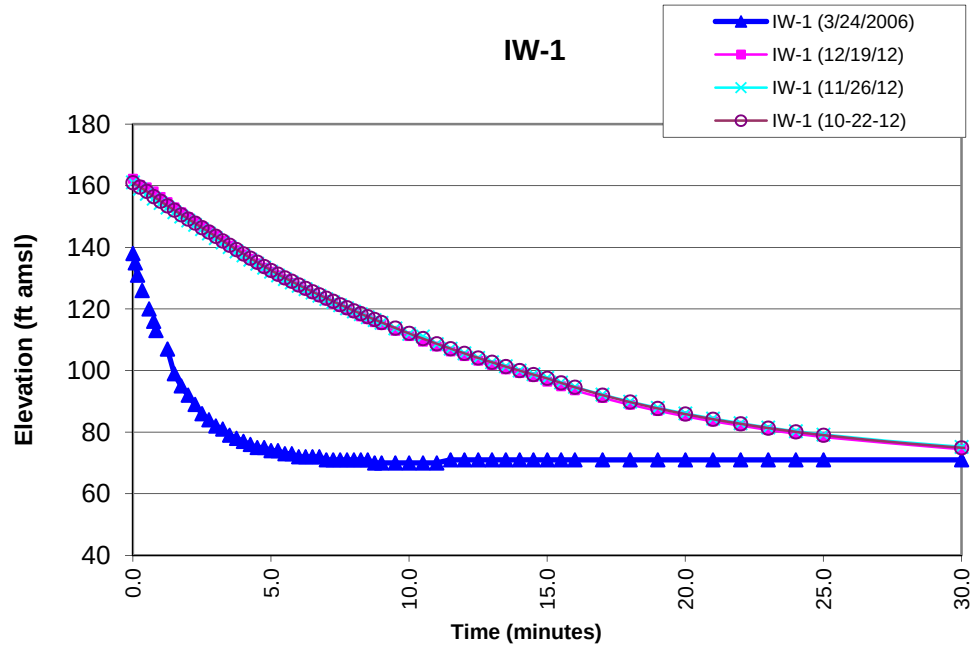
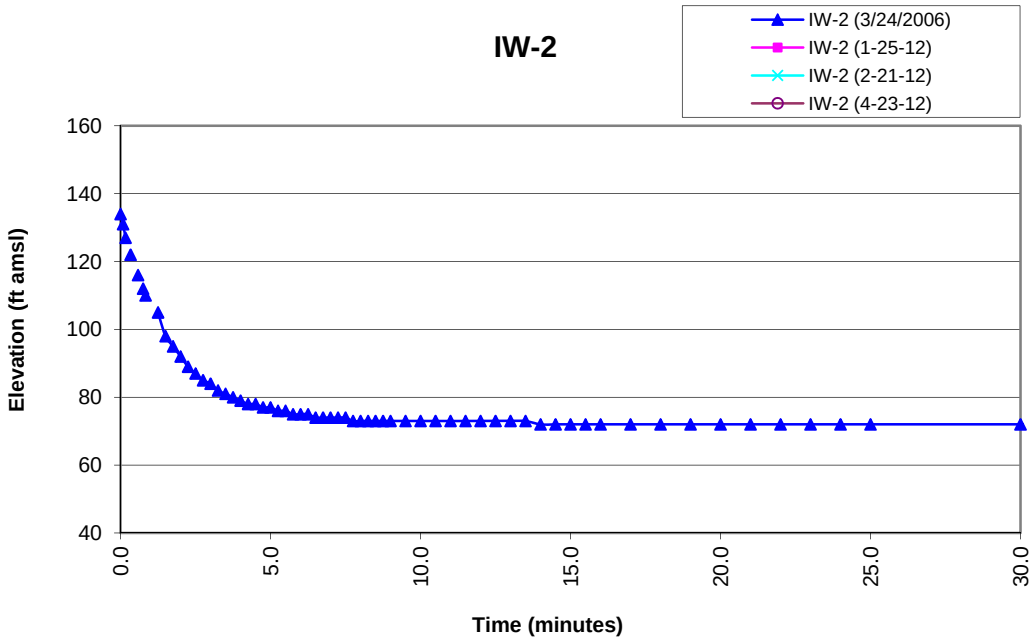
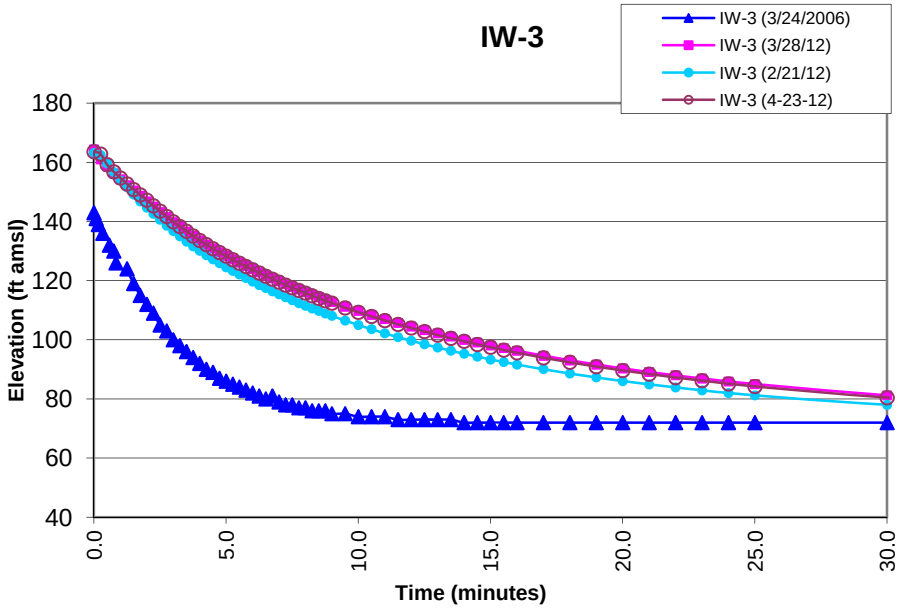
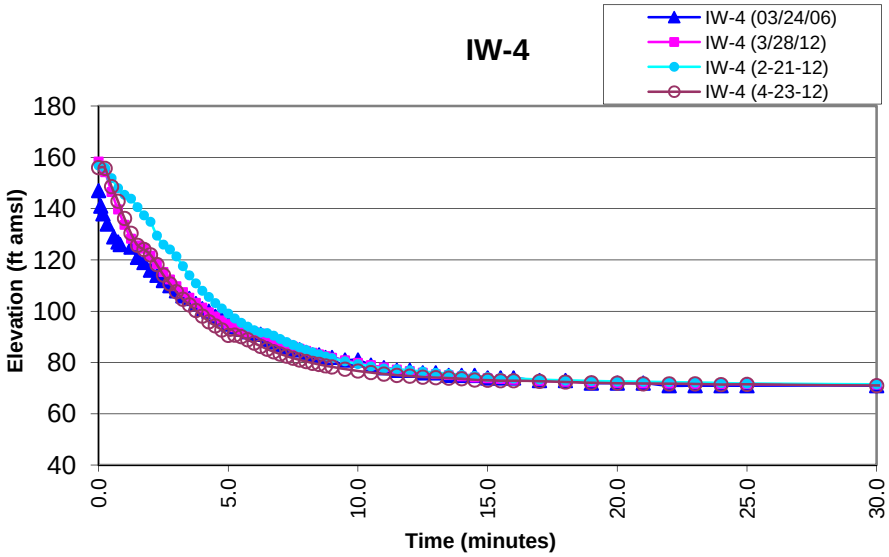


Figure 14-3 Comparison of Falling Head Tests






IW-3
IW-3 (3/24/2006)
IW-3 (3/28/12)
IW-3 (2/21/12)
IW-3 (4-23-12)
Elevation (ft amsl)
180
160
140
120
100
80
60
40
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (minutes)


IW-4
IW-4 (03/24/06)
IW-4 (3/28/12)
IW-4 (2-21-12)
IW-4 (4-23-12)
Elevation (ft amsl)
180
160
140
120
100
80
60
40
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (minutes)

TABLES

TABLE 7-1

MAGNETIC FLOWMETER DAILY TOTALIZER READINGS

January 2013

DATE	TOTALIZER READING	GALLONS PER DAY	GALLONS PER MINUTE
1/1/2013	652400000	0	0
1/2/2013	652400000	30000	21
2/1/2013	652430000		
Jan. '13 Treated Water Volume		**30,000**	
Jan. '13 Avg. GPM Discharged			**1**

TABLE 12-1

Claremont Corrective Action Summary

Plant conditions and concerns (updated 1/29/13)

Date	Condition to be corrected	Status	Priority	Notes
2007	PD manifold leak	Leave as is	3	Leak is monitored and deemed to be not serious
2008	Check Valve failures	Valves are manually controlled	2	Plant wide – 13 units, this situation creates problems for any remote control of the processes.
2008	Injection Pump shut off valve failure	Leave as is	2	Minimum 4 units. Pumps cannot be isolated
Aug '08	Air Compressor overhaul	Run system on an 'as needed' basis	4	This method has been working well. A failure may prevent some tasks.
2009	EQ tank shut off valve failure	Leave as is	2	The tank cannot be isolated
2009	Filter press hydraulic fluid leak	Add fluid as needed	4	The hydraulic pump system will require outside service.
2009	Sludge tank transfer piping replacement	Use M-8 pump and hoses	4	Hoses and an M-8 are being used in place of the hard plumbed system.
Aug '10	IWs transducer replacement	Leave as is and manually measure water levels	3	3 units, only the transducer in IW-1 gives a reliable signal
Aug '10	Access stairs from plant to wellfield	Leave as is	4	Need to generate a plan with costs
May '11	pH meter failures at RX1, 2, and ASF	Leave as is	3	pH control is no longer required
June '11	ASF P2 VFD repair	Leave out of service	2	P-2 is run on off-line pump's VFD
June '11	ASF P3 motor replacement	**Replaced motor with one removed from P2 (1/18/11)**	2	**Has not been tested under load**
July '11	INF P1 VFD repair	Leave as is	2	Pump flow is controlled by throttling the P-1 discharge valve
Dec '11	LCA vessel 2 - pin hole leaks	Await failure	3	**Outside welders have been contacted. Received 1 of 4 quotes**.
Jan '12	INF P2 motor noise	Await failure	4	Replace motor at failure
Apr '12	INJ P2 leak	Leave as is	2	Shut down item – replace seal
Apr '12	Permanganate tank repair	Leave as is	4	Off line, tank is not needed
Sept '12	Optimize PD flow	Leave as is	4	-Change extraction containment flow requirements -change discharge & manifold plumbing -change out pump impellers -resize pumps
Sept '12	Emergency light failure NE door	**New unit installed 1/30/13**	2	**Fully functional**
Nov. '12	Clean process flow monitoring systems	**Ex cleaned 12/12** **PD cleaned 1/3** **IW cleaned12/11**	3	Plant shutdown items: PD, INJ, INF, EX
Nov. '12	Clean Process tanks	Clean when possible	4	Plant shutdown items: EQ, RX-SF, ASF, AST,GACF, TW
Dec '12	Plant heater failure	Leave as is	3	This will most likely require outside service.
Dec. '12	LCA vessel 1 pinhole leaks	Leave as is until failure	3	**See LCA vessel 2 above**
Dec. '12	EQ tank pin hole leaks	Leave as is until failure	2	**See LCA Vessel 2 above**

Dec. '12	AST media evaluation	**Tower opened and media inspected 1/14**	4	**Iron sludge coating, media open - OK**
Dec. '12	Valve Actuators on Settling tanks are a potential hazard	**Actuators removed 1/18**	3	**Controllers disconnected, actuators stowed**
Ongoing	Non-Hazardous Waste Accumulation	Indoor storage	3	Waste removal will be scheduled when sufficient quantity is accumulated.
Recently completed Tasks	Condition	Remedy		
12/14/12	ASF Tank Level alarm faults	Units cleaned and returned to service.		Plant is down so effectiveness of remedy has not been tested
11/15/12	Out Door Heat Trace controllers	Two units for the 3 tanks have been installed and actuated		
11/15/12	IW-2 high water level	Reduced plant flow and several shut down periods righted the problem		
11/14/12	Plant truck emission test	Truck passed		
12/6/12	PID failure	New unit purchased and in use		
12/11/12	INJ Flow meter errors	Cleaned flow elements and piping spool pieces		
12/12/12	EX flow meters	Cleaned flow elements and piping spool pieces		
12/4/12	Plow pump leaks	Unit was rebuilt		
12/20	Clean EQ strainer	Cleaned when tank was emptied		

Priority Level
1- urgent and must be done
2- not urgent but must be done
3- not urgent but should be done
4- not urgent but would like done

TABLE 14-1

Month	$pH_{AVG.}$
May '11	6.25
June '11	6.33
July '11	6.12
Aug '11	6.39
Sept '11	6.38
Oct '11	6.22
Nov '11	6.62
Dec '11	6.60
Jan '12	6.58
Feb '12	6.50
Mar '12	6.57
Apr '12	6.52
May '12	6.28
June '12	6.32
July '12	6.54
Aug '12	6.32
Sept '12	6.20
Oct '12	6.15
Nov '12	6.39
Dec '12	6.11
Jan '13	6.35

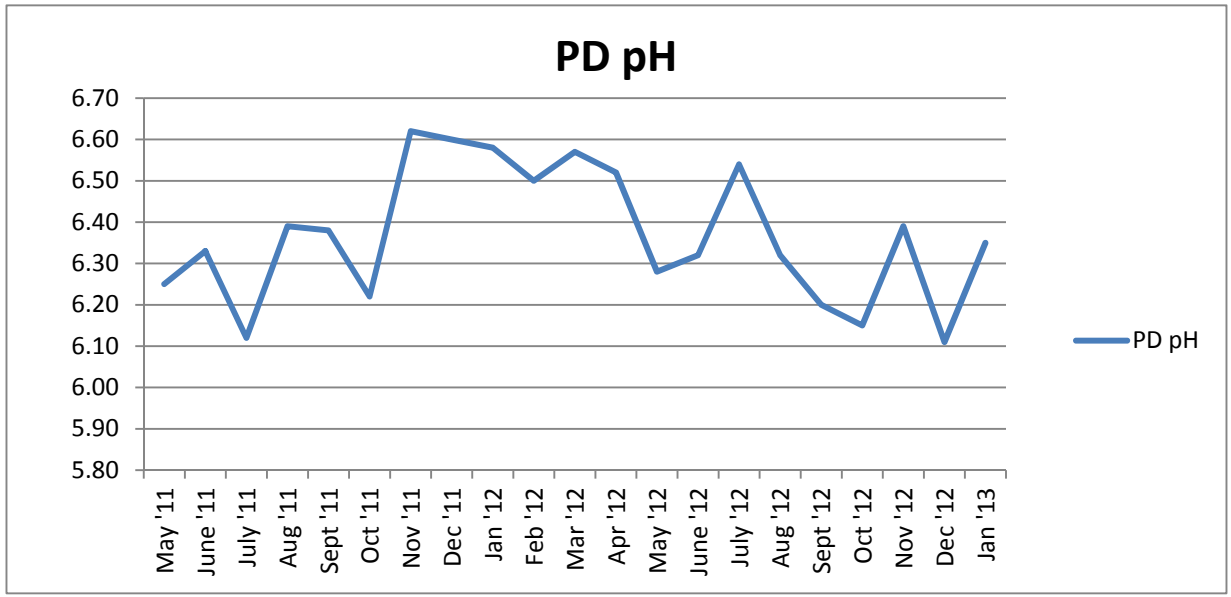


TABLE 14-2 Injection Well Soundings

	Injection Well 1		Injection Well 2		Injection Well 3		Injection Well 4	
Date	Depth to Bottom (ft)	Difference	Depth to Bottom (ft)	Difference	Depth to Bottom (ft)	Difference	Depth to Bottom (ft)	Difference
6/17/2004	248.50	--	248.50	--	253.20	--	205.00	--
7/23/2004	247.97	-0.53	248.19	-0.31	251.20	-2.00	203.50	-1.50
2/16/2006	247.50	-0.01	245.69	-0.40	249.19	-0.02	203.98	0.00
3/23/2006*	247.59	0.09	245.65	-0.04	249.60	0.41	203.75	-0.23
10/25/2007	244.69	-1.10	242.08	0.12	248.73	1.93	200.14	-0.15
11/19/2007	242.20	-2.49	242.00	-0.08	249.60	0.87	201.05	0.91
12/21/2007	235.02	-7.18	241.56	-0.44	249.62	0.02	200.08	-0.97
1/29/2008	232.46	-2.56	241.98	0.42	249.63	0.01	200.03	-0.05
2/29/2008	226.58	-5.88	242.12	0.14	249.82	0.19	199.52	-0.51
3/27/2008	220.50	-6.08	241.90	-0.22	249.50	-0.32	199.30	-0.22
4/29/2008	222.50	2.00	242.02	0.12	249.60	0.10	198.98	-0.32
5/30/2008	218.55	-3.95	241.90	-0.12	249.47	-0.13	198.65	-0.33
11/20/2008	198.05	-2.63	242.12	0.24	249.54	0.04	198.64	0.05
12/29/2008	178.29	-19.76	242.10	-0.02	249.15	-0.39	198.30	-0.34
1/26/2009	167.50	-10.79	241.90	-0.20	248.87	-0.28	198.28	-0.02
2/25/2009	151.20	-16.30	242.00	0.10	248.80	-0.07	198.80	0.52
3/13/2009	148.68	-2.52	241.87	-0.13	248.94	0.14	198.28	-0.52
9/21/2011	145.90	0.05	241.10	-0.40	248.25	0.00	197.73	-0.07
10/7/2011	144.30	-1.60	239.95	-1.15	247.90	-0.35	197.75	0.02
11/17/2011	145.70	1.40	236.70	-3.25	248.72	0.82	197.70	-0.05
12/2/2011	145.95	0.25	233.80	-2.90	248.30	-0.42	194.65	-3.05
1/5/2012	148.80	2.85	233.20	-0.60	247.98	-0.32	197.70	3.05
2/2/2012	145.85	-2.95	224.45	-8.75	248.10	0.12	197.60	-0.10
3/7/2012	147.85	2.00	223.30	-1.15	248.10	0.00	197.50	-0.10
4/2/2012	148.80	0.95	218.80	-4.50	247.97	-0.13	197.50	0.00
5/18/2012	145.80	-3.00	217.95	-0.85	247.78	-0.19	197.49	-0.01
6/26/2012	144.30	-1.50	205.70	-12.25	217.00	-30.78	197.40	-0.09
7/20/2012	145.85	1.55	205.55	-0.15	248.00	31.00	197.40	0.00
8/16/2012	144.90	-0.95	205.70	0.15	248.10	0.10	197.20	-0.20
9/20/2012	145.84	0.94	205.70	0.00	248.09	-0.01	197.10	-0.10
11/1/2012	145.95	0.11	205.15	-0.55	248.00	-0.09	197.00	-0.10
11/16/2012	144.30	-1.65	203.90	-1.25	248.15	0.15	197.00	0.00
1/2/2013	145.90	1.60	202.65	-1.25	248.10	-0.05	197.05	0.05
1/29/2013	145.90	0.00	200.80	-1.85	247.78	-0.32	196.78	-0.27

This table contains selected dates and data

Change From 6/17/04 to Present	**-102.60**	**-45.85**	**-5.10**	**-7.95**
Change 4/08 to present	**-76.60**	**-39.37**	**-1.50**	**-1.93**

Associated and Referenced Documents

Document	Location
Daily Worksheets Daily Operating Log Daily activities Summary Report Daily Site Safety Inspection Employee Sign-in Sheet	Original paper copies in monthly file folders at plant. Electronic copies on Farmington Server: >Claremont Data>year>month>month daily worksheets
Supporting Worksheets Visitor/Subcontractor Sign-in Sheet Air Monitoring Log Sound Monitoring Worksheet Daily Plant Activity Notes Comprehensive Site Safety Inspections	Original paper copies in monthly file folders at plant. Electronic copies on Farmington Server: -with daily worksheets -with daily worksheets -with daily work sheets >operating data>Daily Plant Activity Notes>yr>month >Claremont Data>yr>mo>by date of inspection
Plant Operator's Daily Log Book	Current book issued to operator, completed books on file in shop cabinet
Site Supervisor's Daily Log Book	Current book issued to supervisor, completed books on file in shop cabinet
Daily Database	Current database is an Electronic file on site, in Claremont Docs/Claremont Ops Data/ monthly folder. Past docs on server: > Claremont Data>yr>month>
Daily Operations Summary Report	Current report is an Electronic file on site, in Claremont Docs/Claremont Ops Data/ monthly folder. Past docs on server: > Claremont Data>yr>month>
Monthly O&M Report	Electronic file on server: >Claremont Data>yr>month>
Monthly Maintenance Log	Electronic file on server: > Claremont Data>yr>month>
Project Status Report formerly Activities Schedule	Electronic file on server: >Claremont Data>yr>month>
Groundwater Elevation and Water Quality Database	Electronic file on server: >Operating data
Monthly Plant Truck Inspection Worksheet	Electronic file on server: >Claremont Data>yr>month>
Stand Alone Documents Claremont O&M Manual Site Safety and Health Plan Standard Operating Procedures and Instruction manual Sampling and Analysis Plan Log of Operating System Drawings	Bindered copies in control room, electronic copies on server> Stand Alone Documents
Sampling forms	Electronic file on server: >Sampling> Sampling Forms
Chain of Custody Documents	Electronic File on server: >Sampling> yr>mo
Claremont Site Notebook	Electronic file on server : >Stand alone documents> Claremont notebook

Farmington Server Path: HRP CT Server: J drive/N/Newen…./Claremont Polychemical.../Operating Data (4-6-12)

ATTACHMENT 1

Maintenance and project tasks proposed for the upcoming extended plant process shutdown:

Task	Equipment	Sub tasks
Clean Process Flow Sensors	Plant Discharge Injection well Influent Extraction well	Isolate units Remove flow sensor element Remove pipe section Clean pipe Reassemble Calibrate as necessary
Clean Process tanks	Train 1 Train 2 ASF if necessary GACF if necessary VCA	Empty tanks and Flush/vacuum to sump Clean clarifier baffles and pump out sludge Power wash screens on settling tank drains
Backwash LCA Vessels	LCA-1 LCA-2	Perform multiple cycles for each vessel over several days to allow for water volume disposition
Evaluate leak at INJ P2	Determine if gasket leak or mechanical seal issue (Seal will need to be purchased ~$300)	Remove motor Remove pump head Evaluate surfaces.
PM check valves	ASF GACF INF INJ	Remove covers Clean an lubricate surfaces Note what more extensive work is required.
Refurbish isolation valves on INJ Pumps	P1 and P2	Remove valve Evaluate Clean as possible
Clean EQ tank Strainer	EQ Tank	Isolate and remove strainer Clean unit reinstall
Evaluate ASF Tank level monitors	LAHH-2-1-1-1 LAHH-2-1-1-2	Remove units Clean as possible reinstall
Evaluate AS Tower Media		Open tower man-ways Inspect media Determine further action

<u>Items not requiring shutdown</u>:

- Install motor at ASF P-3 using motor taken from P2 in 2011
- Cut grass at monitoring wells
- Post storm – clean paths to monitoring wells
- Clean mold on metal surfaces
- General plant and equipment painting
- Remove actuators from discharge valves of settling tanks
- Continuing adding fill to BP-3 well path