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

MONTHLY REPORT
of the
Operations & Maintenance Activities
During
August 2013

WA D006130-19
SITE # 130015

Prepared for the:

New York State Department of Environmental Conservation

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Prepared: September 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 groundwater treatment system (GWTS) for August 2013. This period is defined as 0600 hours, August 1, 2013, through 0600 hours, September 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 31 days in this reporting period. The plant experienced 435 minutes of downtime for various maintenance activities. While operating, the treatment system was generally stable with steady flows.

During August, readings of key process parameters were recorded each work day morning. These readings are used to monitor the plant's performance and as a basis for adjustments to the plant processes. These readings are recorded in the Daily Database which is an electronic file maintained in the monthly operating data folders.

1.1 Daily Operations Summary Reports

The 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.

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.

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

- General maintenance activities continued, including outdoor clean up tasks, landscaping tasks, housekeeping, system inspections and system monitoring.
- Scheduled monthly tasks which included motor amp load readings, injection well (IW) depth soundings, IW falling head tests, valve function tests, comprehensive site inspections, and infiltration gallery readings.
- The process pumps were rotated from 1&2 to 1&3 to 2&3 to 1&2
- Fixtures on the air stripper system were power washed in preparation of painting.
- Tubing was replaced on the VCA vessel meters.
- Site warning signs were secured to the perimeter fence where needed.
- The LCA vessels were backwashed with compressed air then treated water. The waste water was discharged to the floor sump and then transferred to the sludge tank.
- The floor sump was cleaned of built up carbon by pumping to the sludge tank with the diaphragm pump.
- Vines and overgrowth were cleared from the gate and fence to the extraction wells.
- The sludge tank was emptied through the filter press.
- The 2” vent valve on LCA vessel-2 was replaced.
- The filter press was dried and emptied to a steel drum.
- The infiltration gallery pipe clean-out pads were cleared of overgrowth.
- The globe valves on the discharge of EX-1 and EX-2 were throttled down to reduce the flow.
- The packer in EX-1 was recharged to 41 psi.
- The portable compressor was repaired.
- The pull starter cord on the Billy-goat mower snapped. The mechanism was rebuilt and re-installed.
- A cover was made for the water connection access port.
- A 2” butterfly valve on the sludge tank drain was replaced with a 2” ball valve.
- The monthly in-house truck inspection was completed.
- The press pump discharge hose was replaced.
- A cracked flange and flow sensor spool piece were replaced on the EX-3 pump discharge piping.

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-46

Of the completed project logbooks, 40 are in the process of being scanned and delivered to the NYSDEC and 4 are on file at Claremont. 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

- Other than the plant operators, there were no HRP personnel at the site in August.

3.2 NYSDEC Personnel, sub-contractors and other visitors

- TA-NY picked up the PW samples 8/21 for delivery to TA-Edison
- TOB Fire inspectors were in for the annual system inspection (8/27)
- BK Fire was in for the quarterly sprinkler inspection (8/28)

3.3 Deliveries

- Test America- NY (TA-NY) delivered the sample bottle orders (8/7, 8/20)
- Mail was delivered 3 times.
- UPS delivered the Ryan Herco parts 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 August. These worksheets are also on file.

- Plant personnel completed their biannual Medical Surveillance physicals and respirator fit testing
- The revised Site Safety and Health Plan for Claremont was received and is currently being reviewed.

No safety incidents or accidents occurred during this August 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 August 27 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).

- The September PD samples are scheduled for 9/19
- The next quarterly GW samples are scheduled for shipping 9/26
- The preparation and painting of the EQ tank shell continues when conditions permit
- A structure is to be built to house the exposed sump discharge piping
- The revised SSHP is to be reviewed as well as the procedures for LOTO and confined space entry.

6.0 MONITORING WELL WATER ELEVATIONS

The well system water level elevation data table was updated after the June quarterly groundwater sampling event. This database is available for review on the HRP FTP site. The water level elevation data is included in the quarterly groundwater monitoring report.

Due to the stabilized nature of PDB samples, the water quality data will no longer be recorded. The next update of the water level data will take place after the quarterly groundwater event to be scheduled for September.

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 for August is provided in Table 7-1. The total volume of treated water discharged in August, as measured from 0600 hours on August 1, 2013, to 0600 hours on September 1, 2013, was 15,886,873 gallons. This volume is approximately 106 percent of the monthly targeted treatment goal. The cumulative volume of water discharged for this contract year (June 1, 2013 to present) was 42,895,896 gallons and is ~3 percent 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.) The plant has been offline for ~7 hours in August and ~172 hours this contract year.

In August, the plant discharge flow averaged 356 gallons per minute (gpm) and 512,480 gallons per day (gpd).

Month	Flow Average (gpm)	Volume Discharged (gpd)
June '12	380	546,715
July '12	357	513,599
August '12	344	495,778
September '12	338	487,288
October '12	320	460,217
November '12	343	493,409
December '12	47	68,314
January '13	0	0
February '13	0	0
March '13	0	0
April '13	0	0
May '13	152	219,330
June '13	333	480,205
July '13	282	406,545
August '13	356	512,480
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. The relative flows for August are indicated below:

Injection Well System	Flow Average (gpm)	Volume Discharged to well (gallons)*
IW-1	17.1	762,747
IG-1	72.6	3,241,176
IW-2	80.7	3,603,838
IW-3	49.2	2,196,635
IG-3	63.3	2,824,245
IW-4	83.9	3,745,851
System	**366.8**	**16,371,492**

The discrepancy between the individual injection system meter readings and the total plant effluent meter readings (~10 gpm) is due in part to the type of flow meters utilized to measure the discharge (paddle wheel vs. magnetic vs. turbine), sludge build up in the piping at the flow elements, rounding factors in the meters, and the relative time the readings are taken. The flow elements and local pipe were last cleaned in February.

The flow to IW-1 and IW-3 is maximized and the valves to the galleries are fully open. 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 not in service. 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 cracked drain nozzle repaired.

There are no bulk chemicals onsite.

9.0 CARBON SYSTEMS

9.1 Aqueous-Phase Carbon

The influent water to and the effluent water from the liquid-phase Carbon Adsorber (LCA) vessels is monitored on a quarterly basis for volatile organic (VOA) and semi volatile organic (BNA) compounds. In previous sampling of these streams, neither VOA nor BNA compounds have been detected. The last sampling of the vessels occurred in late August and the results have not yet posted.

As part of the daily monitoring task, the differential pressure across each vessel is recorded. This data along with the discharge pressures of the LCA feed pumps are used to determine whether backwashing of the carbon beds is necessary. The vessels were backwashed through several cycles each this month. Currently the differential pressure across vessel #1 is 3.0 psi and across vessel #2 is 3.0 psi.

During the backwash operation, ~ 0.5 drums of carbon was removed from the vessels. This carbon waste is generally listed as non-hazardous. No carbon was 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 online. VCA-2 is offline and ready for service. Monitoring of VOCs in the influent and effluent air stream of the active vessel is performed weekly with a photo-ionization detector (PID). No emissions from the vessel were observed in August.

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 8 metal drums of non-hazardous carbon waste stored inside the facility. There was no waste removed from the facility in August.

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. Efforts are currently underway for the permit renewal/extension.

12.0 OTHER OPERATIONS, MAINTENANCE, OR MANAGEMENT ISSUES

Flows from extraction wells 1 and 2 have been restricted ~10%

NYSDEC has authorized HDR Inc. to sample the EW-7 wells on the northern edge of the site.

The plant experienced another momentary power interruption (8/20). INJ-P3 and EX-2 pump and ASF-P1 failed to automatically restart. These pumps were manually reactivated.

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. In August, the following changes were made:

- The Truck Usage Log (-Form-032) was revised to rev. B
- A procedure for Remote Access to the HMI (-SI-009) was written
- The HRP Site Safety and Health Plan (SSHP) was received from HRP-NY

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. Augusts' sampling activities included:

- The system's process water was sampled 8/19-21. The samples were shipped to TA-NY for analysis
- The July plant discharge sample's analytical results were uploaded to the EQuIS system.
- The September PD samples are scheduled for 9/19.
- The Quarterly GW samples are scheduled for shipping 9/26.

On July 24, 2013 the plant discharge was sampled. The results for those samples follows:

Plant Discharge			
Parameters	**Discharge Limitations**	**Units**	**Results July '13**
pH (range)	5.5 – 8.5	SU	6.52
Tetrachloroethylene	5	ug/l	U
Trichloroethylene	5	ug/l	0.16
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 the plant effluent taken from a controlled point with calibrated portable meters. A summary of these data is as follows:

Date	pH	Temperature (°C)
August 5	6.75	16
August 12	6.75	18
August 19	6.73	16
August 26	6.30	17
August Average	**6.63**	**16.75**

The NYSDEC discharge permit requires the plant discharge to have an average monthly pH greater than 5.50. The treatment plant effluent pH averaged 6.63 in August 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.

Using a calibrated PID meter, weekly air monitoring readings are taken of the influent and effluent air streams of the active vapor phase carbon adsorber vessel following the air stripping tower. Currently vessel #1 is on-line.

Date	Inlet	Outlet
August 5	0.0	0.0
august 12	0.0	0.0
August 19	0.0	0.0

August 26	0.0	0.0
*PID readings indicate that the VOCs in the air stream are lower than the part per million levels (ppm) of the instrument's capability.		

No emissions were observed in the discharge of the active vessel VCA-1.

Measurements to determine the well depth from the top of the injection well column to the bottom were taken on 8/16. 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, IW-2 is showing signs of an increased rate of sediment deposit. Flows into this well are at times restricted to prevent overflows.

Water elevations in the IWs are recorded on a daily basis from the well's transducer output. Although depicted in Figure 14-1, these water levels are from faulty instruments and are questionable. However, the IW levels were generally steady and are physically monitored. On 8/16 the DTW readings for the injection wells were recorded.

	Sounding Depth (ft)	Transducer	Depth to Water (ft)
IW-1	144.00	120.9	6.58
IW-2	156.20	122.5	2.47
IW-3	247.84	127.7	6.28
IW-4	195.60	127.0	12.60

The injection well falling head test was conducted on August 26. Due to the questionable output of the level transducers, the only data recorded was for IW-1. A graphic representation of the time required to drop the water level to a static condition is presented in Figure 14-2. Comparisons of baseline data from March 2006 to that of recent tests (Figure 14-3) indicate that the performance of IW-1 is unchanged. With the exception of IW-2, the wells appear to be draining adequately.

Other routine data collected during August included:

- The plant sound level readings were recorded twice (8/9, 8/22)
- 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. (8/28)
- Weekly utility meter readings were recorded.
- The extraction well packer pressures were recorded on several occasions (see Sec. 15.1)
- IW-2 was resounded 8/29 to confirm the deposit of material in the well.

15.0 PROCESS ANALYSIS, INTERPRETATIONS, AND CONCLUSIONS

15.1 Extraction and Influent Processes

- Discharge flows from EX-1 and EX-2 were restricted.
- The flow meter spool piece on the EX-3 discharge line was replaced due to a cracked flange.
- The packer in EX-1 was recharged to 41 psi.
- Motor amp load readings were recorded 8/29
- The three extraction well pumps are fully functional and are on-line.
- The three influent pumps are operational with 2 pumps on-line at a time.
- There continues to be some drift in the VFD control of influent pump-1.
- The influent pumps were rotated three times in August.
- The 2 influent flow controllers are fully functional.
- Routine maintenance continues.

Extraction Well packer pressure readings:

Date	EX-1 (psi)	EX-2 (psi)
7/29/13	31	48
8/5	28	47
8/9	26	47
8/15	24	47
8/15	recharged to 41 psi	-
8/19	40	47
8/26	36	47
8/29	35	46

15.2 Flow through Aeration Process

- Both treatment trains are on-line and the influent water is matched to the output of the ASF pumps.
- 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 lack of solids generation.
- The reaction tanks and clarifier systems continue to operate as pass-through settling tanks.

15.3 Settling Filter Process

- The system is fully functional.
- Maintenance is performed as required.

15.4 Air Stripping Process

- The three ASF pumps are operational and are rotated into service two at a time. They were rotated three times in August.
- The motor amp load readings were recorded 8/29
- The VFD for ASF P2 exhibits an earth ground fault. When on-line, Pump 2 operates through the off line pump's VFD.
- The VFD for ASF P1 is starting to become problematic. It does not seem to control by tank level and has latched to the VFD for pump 3.
- The blower is checked daily and is fully functional.
- No other issues arose with the air stripping system. Routine maintenance continues.

15.5 Aqueous-Phase Carbon Treatment Process

- All three feed pumps are operational, with two pumps rotated into service at a time. The pumps were rotated three times in August
- The pump motor amp load readings were recorded 8/29.
- Both vessels were backwashed through 2 air/water cycles each on 8/12
- Carbon was removed from the floor sump and collected for disposal.
- Other routine maintenance tasks continued.

15.6 Treated Water Injection Process

- The plant discharge system is online and operational.
- The injection pumps were rotated twice in August
- The pump motor amp load readings were recorded 8/28
- There appears to be an increasing rate of material deposit in IW-2
- The galleries are adequately draining.
- No other issues were encountered with the injection system in August. Routine maintenance tasks continue.

16.0 GROUNDS

Routine maintenance tasks continue outside the plant.

16.1 Plant Perimeter

- General outdoor clean up continues. This includes landscaping tasks.
- The perimeter fence warning signs were re-secured where necessary.

16.2 Well Field

- The frequency of DTW readings has increased due to the poor signals from the injection well transducers.
- EX well packer pressure readings continue.
- The well sites were kept clear of overgrowth

16.3 Other

- The monthly in-house inspection of the plant truck was completed.
- Repairs were made to the Billy-goat mower.
- 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

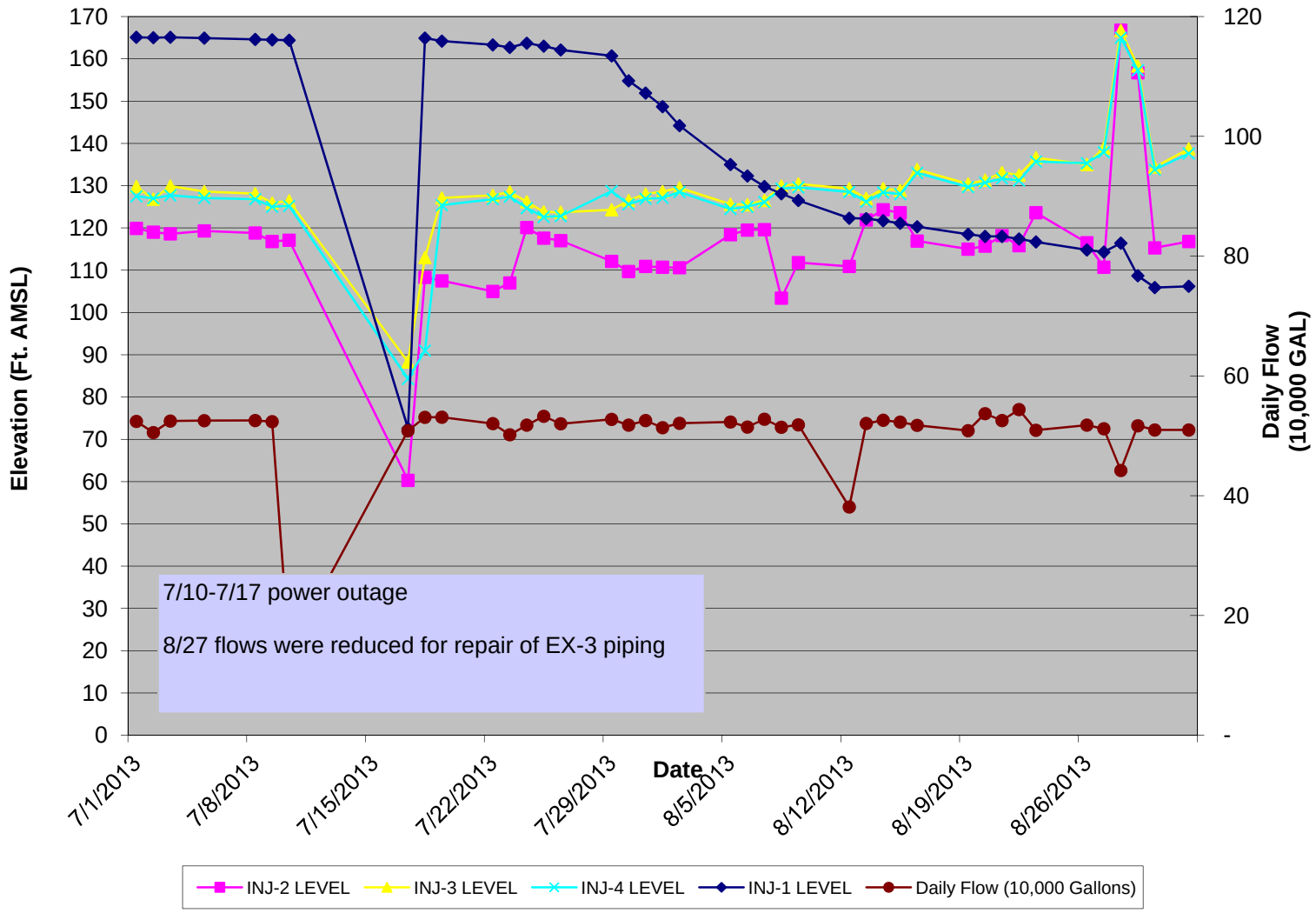


Figure 14-2 Injection Well Falling Head Test - August 26, 2013

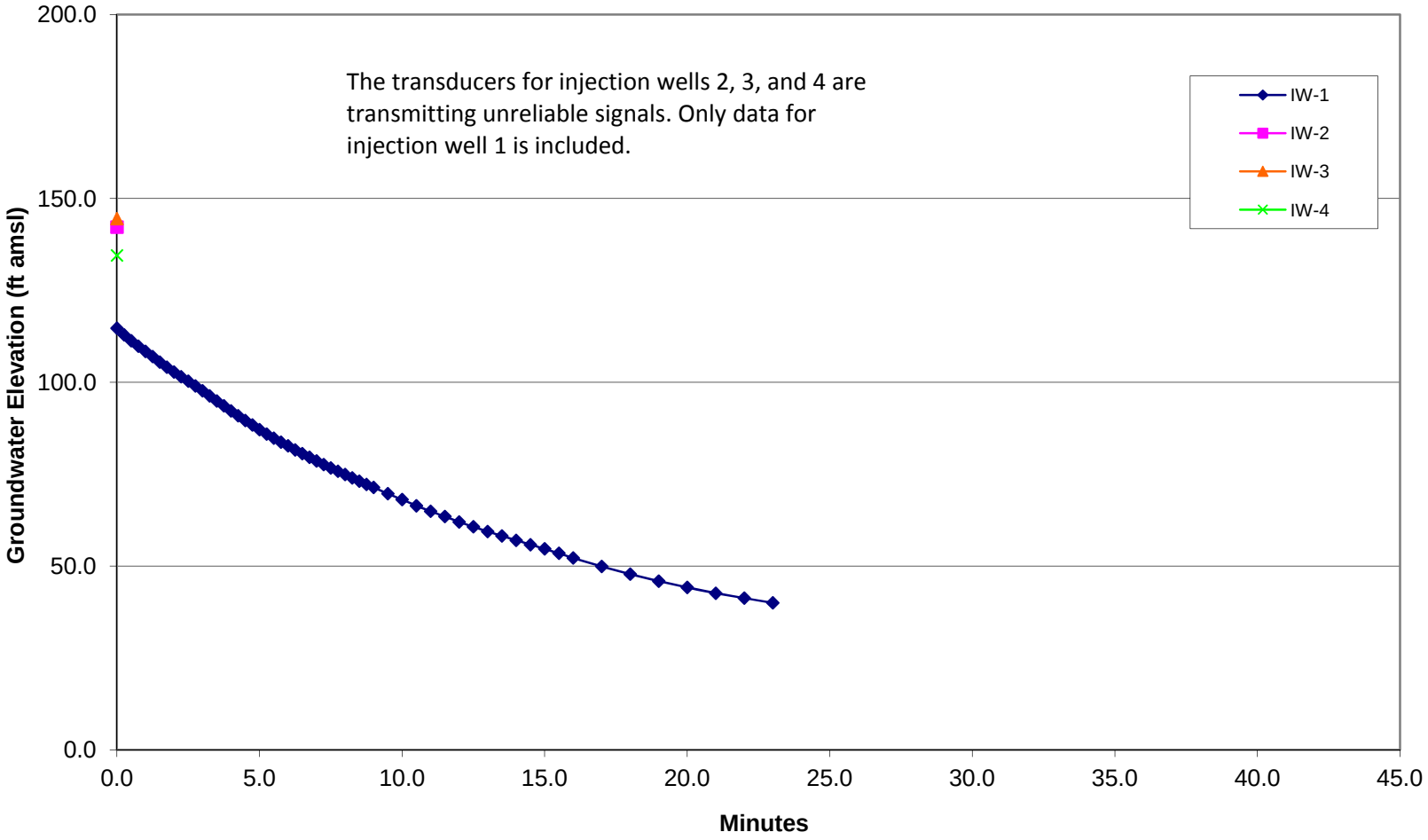
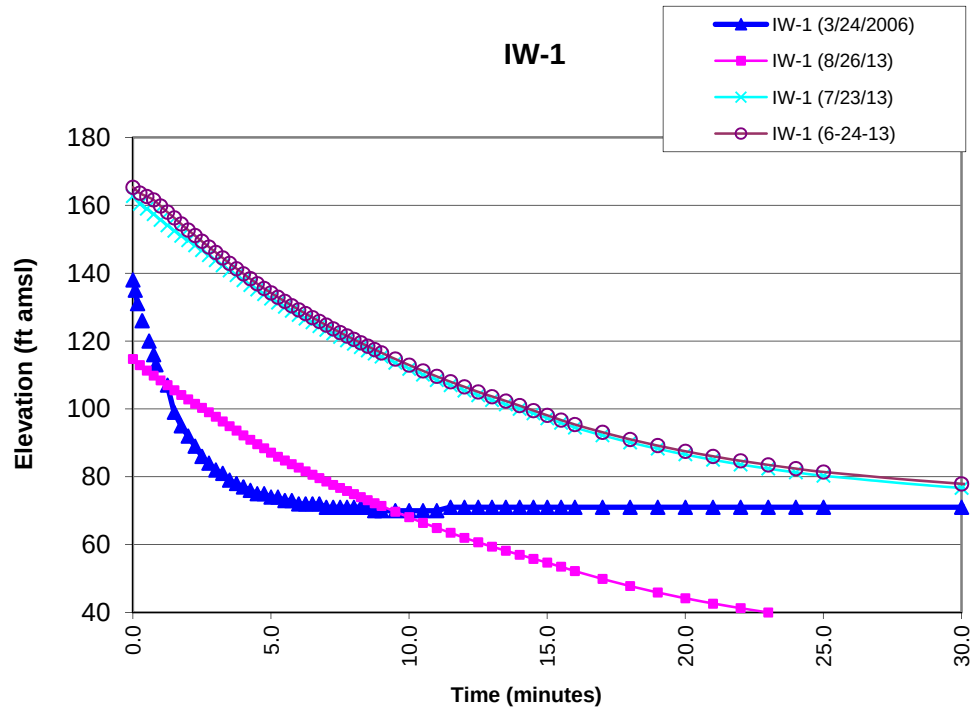
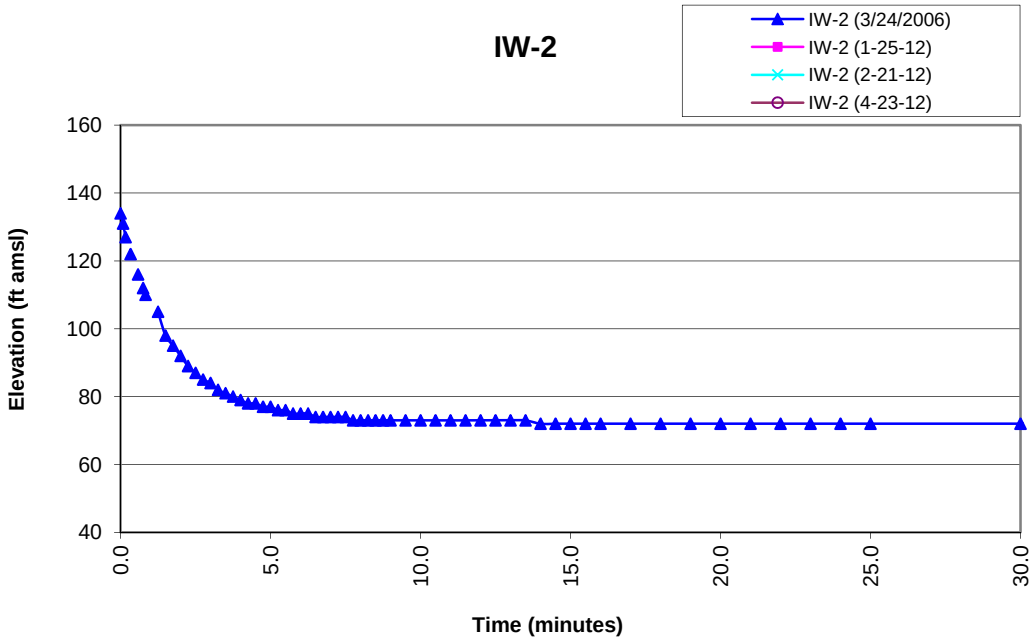
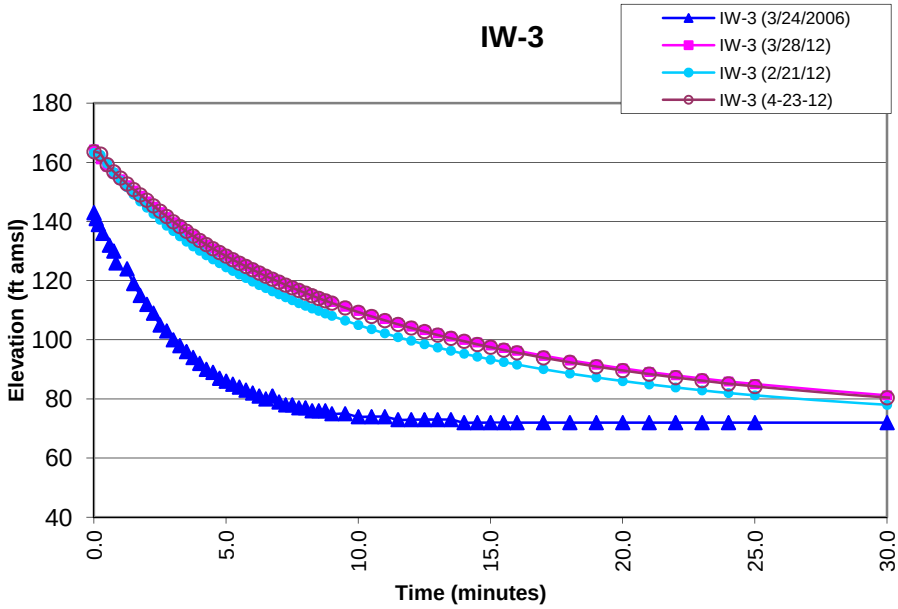
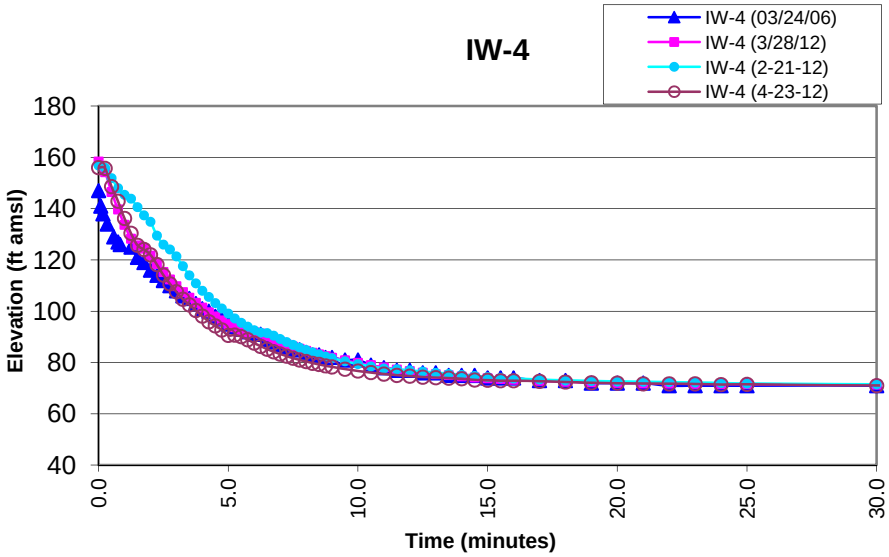


Figure 14-3 Comparison of Falling Head Tests






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

DATE	TOTALIZER READING	GALLONS PER DAY	GALLONS PER MINUTE
8/1/2013	686238253	551747	383
8/2/2013	686790000	1570000	363
8/5/2013	688360000	510000	354
8/6/2013	688870000	530000	368
8/7/2013	689400000	520000	361
8/8/2013	689920000	510000	354
8/9/2013	690430000	1550000	359
8/12/2013	691980000	400000	278
8/13/2013	692380000	500000	347
8/14/2013	692880000	530000	368
8/15/2013	693410000	520000	361
8/16/2013	693930000	1550000	359
8/19/2013	695480000	510000	354
8/20/2013	695990000	540000	375
8/21/2013	696530000	520000	361
8/22/2013	697050000	500000	347
8/23/2013	697550000	1600000	370
8/26/2013	699150000	520000	361
8/27/2013	699670000	510000	354
8/28/2013	700180000	440000	306
8/29/2013	700620000	520000	361
8/30/2013	701140000	985126	684
9/1/2013	702125126		
Aug'13 Treated Water Volume		**15,886,873**	
Aug '13 Avg. GPM Discharged			**356**

Table 12-1

Plant conditions and concerns (updated 8/27/13)

Date	Condition to be corrected	Status	Priority	Notes
2007	PD manifold leak	Leave as is and monitor	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 1&2 shut off valve failures	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 isolation 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.
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	4	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
July '11	INF P1 VFD repair	Leave as is	2	Pump flow is controlled by throttling the P-1 discharge valve
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
June '12	ASF Level Monitor	Operate as is	3	Monitor give false LL conditions which cycles the pump
Sept '12	Optimize PD flow	Leave as is	4	-Change extraction containment flow requirements -change discharge & manifold plumbing -change out pump impellers -resize pumps
Nov. '12	Clean Process tanks	Clean when possible EQ , TW, ASF	4	Plant shutdown items: See below for completed tanks
Ongoing	Non-Hazardous Waste Accumulation	Indoor storage - ongoing	3	Waste removal will be scheduled when sufficient quantity is accumulated.
Jan '13	Rust spots on storage tank shells	Project has started, lower sections of the TW and EQ tanks have been prepped and spot primed	2	Rusted areas are to be abraded clean and spot painted
May '13	VFD for ASF P1 – not tracking tank levels	P1 system is currently tracking VFD 3	2	Need electronics tech to look at control system
July '13	Well caps (drive-over) are missing or damaged at EW-6c and EW-2c	fabricate or purchase caps **Cap for EW- 2c fabricated**	**4**	one well is on golf course and one at the paper processor
Aug '13	Cracked flange on EX-3 flow meter piping	parts have been installed	2	in-house repair
Aug'13	**mower pull start snapped**	**parts and service have been ordered, repairs made**	**3**	**in-house reassembly when parts are received**

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		
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
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
June '11	ASF P3 motor replacement	Replaced motor with one removed from P2 (1/18/11)	2	Has not been tested under load
Dec '11	LCA vessel 2 - pin hole leaks	Repaired 2/14	3	Fully functional Feb '13
Nov. '12	Clean Process tanks	Clean when possible EQ , RX-1, RX-2, ST-1	4	Tanks cleaned during shutdown: RX-1, RX2, CL1, CL2, ST1, ST2, GACF1 ASF1
Dec '12	Plant heater failure	The heater was adjusted and is now functional	3	Fully Functional Feb '13
Dec. '12	LCA vessel 1 pinhole leaks	Repaired 2/15	3	Fully functional
Dec. '12	EQ tank pin hole leaks	Repaired 2/19	2	Fully functional
March '13	More EQ tank pin-hole leaks	Welder has been contacted to provide quote prior to NYSDEC approvals – Tank repaired(5/16)	1	5 leaks have been observed
2009	Sludge tank transfer piping replacement	Piping disconnected and pump removed	4	Hoses and an M-8 are being used in place of the hard plumbed system.
May '13	EX well Blockers – leaking air	Periodically charging bladders. The pumps and packers were pulled, repairs were made, and then were re-installed (6/17). EX-2 holds pressure, EX-1 loses pressure over time. Bladder recharged as needed.	**1**	Charged system affects the transducer activity.
May '13	EX well capacity testing	Pump tests completed	2	Equipment may not support the tests as designed

		6/227		
May '13	INJ P2 is not functioning	Repairs made 7/2	3	Further testing is required
June '13	Flow control on EX discharge lines is not adequate.	Butterfly valves are shut off valves not control valves Globe valves were installed. Flanged connections replaced BF valve immediately downstream of flow element. BF shut off valve was moved as far down stream as possible.	1	Install globe upstream of flow elements. Re-plumb as possible to move disturbances away from flow element
July '13	INF P2 motor to pump coupling failure	Replace coupling coupling replaced and pump returned to service 7/23	2	Take pump out of service and replace element.
July '13	Rotation of motors was reversed when repairs to broken power leads was made	Reverse wires in MCC Repairs made 7/17	1	possible damage to motors and impellers as well as low output

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	$pH_{AVG.}$
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
Feb '13	nr
Mar '13	nr
Apr '13	nr
May '13	6.05
June '13	6.33
July '13	6.59
Aug '13	6.63

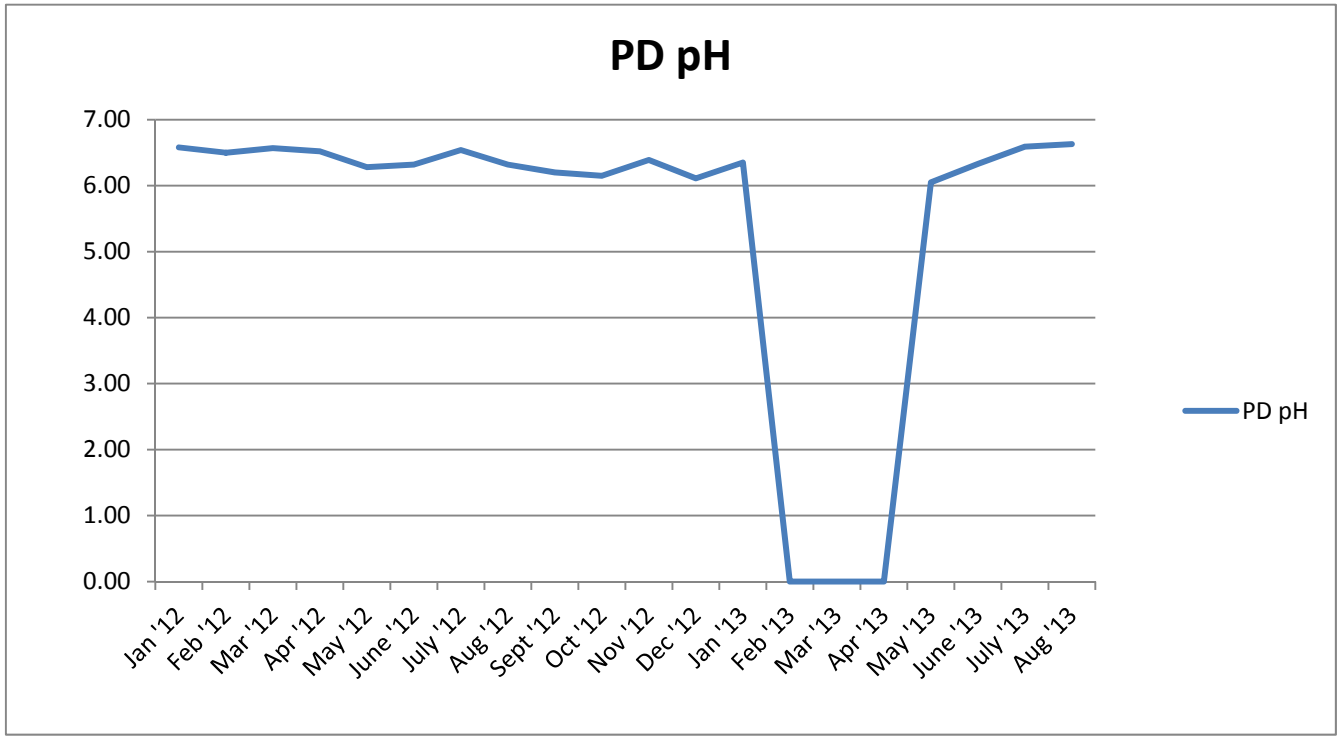
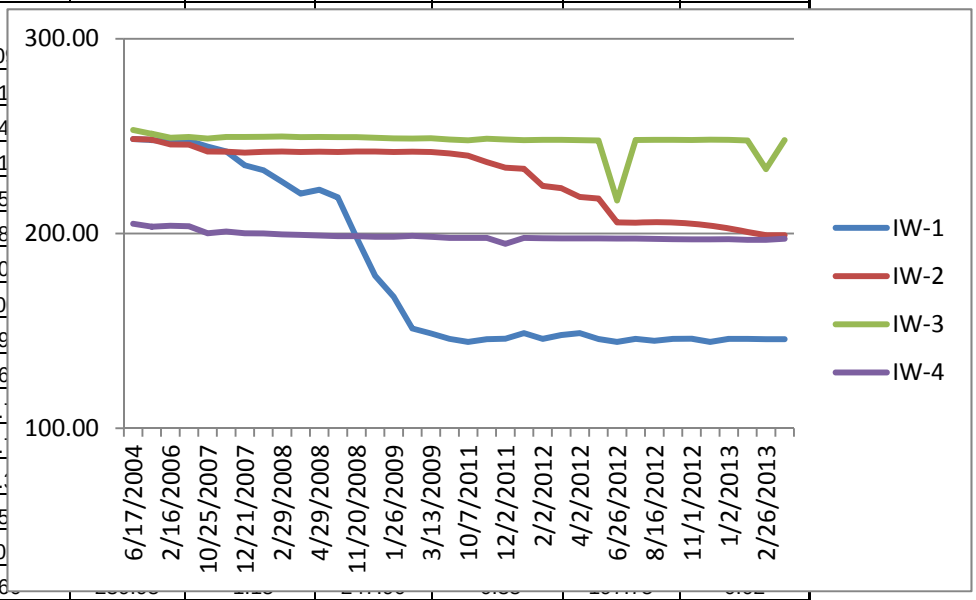


TABLE 14-2 Injection Well Soundings

This table contains selected dates and data

	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	0.0						
10/25/2007	244.69	-1.1						
11/19/2007	242.20	-2.4						
12/21/2007	235.02	-7.1						
1/29/2008	232.46	-2.5						
2/29/2008	226.58	-5.8						
3/27/2008	220.50	-6.0						
4/29/2008	222.50	2.0						
5/30/2008	218.55	-3.9						
11/20/2008	198.05	-2.6						
12/29/2008	178.29	-19.						
1/26/2009	167.50	-10.						
2/25/2009	151.20	-16.						
3/13/2009	148.68	-2.5						
9/21/2011	145.90	0.0						
10/7/2011	144.30	-1.6						
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
2/26/2013	145.70	-0.20	199.10	-1.70	233.10	-14.68	196.76	-0.02
3/18/2013	145.70	0.00	199.10	0.00	247.95	14.85	197.30	0.54
4/18/2013	144.05	-1.65	199.10	0.00	247.70	-0.25	197.25	-0.05
5/14/2013	145.70	1.65	198.10	-1.00	247.80	0.10	198.43	1.18
6/27/2013	145.55	-0.15	198.10	0.00	247.80	0.00	198.43	0.00
7/29/2013	145.60	0.05	135.80	-62.30	247.80	0.00	196.27	-2.16
8/16/2013	144.00	-1.60	156.20	20.40	247.84	0.04	195.60	-0.67



			DTB Well	Changes		
June ' 04 to	Present	**-104.50**		**-92.30**	**-5.36**	**-9.40**
June '04 to	Feb '06	-1.00		-2.81	-4.01	-1.02
*Injection wells IW-2 and IW-3 redeveloped during week ending 3/17/2006						
Mar '06 to	Oct '07	-2.90		-3.57	-0.87	-3.61
Injection wells IW-1 and IW-3 were redeveloped during week ending 11/9/07						
Nov '07 to	Mar '08	-21.70		-0.10	-0.10	-1.75
Injection wells IW-1 and IW-3 were redeveloped during week ending 4/25/08						
Apr '08 to	Present	**-78.50**		**-85.82**	**-1.76**	**-3.38**

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
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

Associated documents and worksheets used to generate this report can also be found on shared folder' CPC Monthly Logs from Plant'