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

MONTHLY REPORT
of the
Operations & Maintenance Activities
During
September 2013

WA D006130-19
SITE # 130015

Prepared for the:

New York State Department of Environmental Conservation

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Prepared: October 7, 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 September 2013. This period is defined as 0600 hours, September 1, 2013, through 0600 hours, October 1, 2013. O&M conducted during this reporting period was performed in accordance with the site O&M Manual.

The plant, grounds, and well system were maintained for 30 days in this reporting period. During September, the treatment system was generally stable with steady flows. There was no downtime in this period.

This month, 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.
- Areas around the monitoring wells were cleared of brush in anticipation of the quarterly sampling activities.
- PM tasks on the AS blower were completed.
- INF P1 was taken off line and the head dissembled for repairs to the adaptor housing
- Exit light lamps were replaced where necessary
- The exposed sump discharge pipe was insulated and enclosed.

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 September.

3.2 NYSDEC Personnel, sub-contractors and other visitors

- Valerie Egan (NCDPW) was onsite (9/6, 9/11) for sampling activities.
- Jennifer Becker (HDR) was at EW-7 wells (9/17-20) for sampling.
- Mike Flaherty (NCDPW) was onsite (9/18) to furnish a project update.
- Din Wang (TOB Lab) picked up the GW split samples (9/23).
- TA-NY picked up the PD samples (9/19) and the GW and carbon samples (9/26).

3.3 Deliveries

- Mail was delivered 3 times
- Fed Ex delivered EON order (9/16)
- TA-NY dropped off sample bottles.

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), revised in June 2013. 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 September. These worksheets are also on file.

- The revised Site Safety and Health Plan for Claremont was received and is currently being reviewed for site specific Standard operating procedures
- Comprehensive site safety inspections were completed 9/6 and 9/20
- INF P1 was locked out during the repair activities

No safety incidents or accidents occurred during this September 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 September 26 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 October PD samples are scheduled for 10/15
- The preparation and painting of the EQ tank shell continues when conditions permit
- The revised SSHP is to be reviewed.
- Repairs to the INF P1 adaptor housing continue. The piece is to be welded.
- The GW elevation table is to be updated
- The LCA Vessels are to be backwashed.
- Disposal of the drummed spent carbon is to be scheduled for October once sample results are reviewed

6.0 MONITORING WELL WATER ELEVATIONS

The monitoring well system water level elevation data table was updated after the June quarterly groundwater sampling event. This database is available for review. 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 most recent water level data (September) is in the process of being entered.

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 September is provided in Table 7-1. The total volume of treated water discharged in September, as measured from 0600 hours on September 1, 2013, to 0600 hours on October 1, 2013, was 14,790,670 gallons. The cumulative volume of water discharged for this contract year (June 1, 2013 to present) was 57,686,566 gallons. A graphic representation of the system's daily flows is provided in Figure 14-1. The plant experienced no downtime in September but has been offline ~172 hours this contract year.

In September, the plant discharge flow averaged 342 gallons per minute (gpm) and 493,022 gallons per day (gpd). This is down from August due to restrictions in the flow to IW-2. Flow to IW-2 has been restricted to prevent overflow conditions in the well column.

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	System scheduled to be off	0
February '13	System scheduled to be off	0
March '13	System scheduled to be off	0
April '13	System scheduled to be off	0
May '13	152	219,330
June '13	333	480,205
July '13	282	406,545
August '13	356	512,480
September '13	342	493,022
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 September are indicated below:

Injection Well System	Flow Average (gpm)	Volume Discharged to well (gallons)
IW-1	17.6	758,449
IG-1	78.1	3,372,538
IW-2	57.6	2,486,187
IW-3	47.0	2,032,313
IG-3	73.0	3,153,481
IW-4	84.2	3,638,959
System	**357**	**15,441,927**

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 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 vessels were last sampled in August. The analytical data indicates that there are no organic compounds of concern present.

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 in August. Currently the differential pressure across both vessels indicates that backwashing should be scheduled.

In September, no carbon was removed from the vessels. There is spent carbon from these vessels temporarily stored on-site. This carbon waste is generally listed as non-hazardous. No carbon was added to the vessels.

9.2 Vapor-Phase Carbon

Two 625 cubic feet vapor-phase Carbon Adsorber vessels (VCA) are available for the off gas treatment of the air stripping (AS) stream via 10,000 lbs of 4x10 mesh activated carbon. 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 September.

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. Samples of the spent carbon were sent to the lab for analysis prior to coordinating drum removal. There was no waste removed from the facility in September.

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

The discharge from extraction wells 1 and 2 remain restricted by the globe valves at the mixing manifold. EX-1 averages 80-90 gpm, EX-2 averages 100-110gpm, and EX-3 averages 125-135 gpm. (These gpm ranges are averages over 24-hrs, the pump's actual on-time is 16-19 hours per 24 hours).

NYSDEC has authorized HDR Inc. to sample the EW-7 wells on the northern edge of the site. The wells were sampled 9/17-20. Some assistance was given.

The infiltration of material into IW-2 continues. There has been some difficulty is measuring the DTB of the well. The water level in the well has been rising and plant discharge flow to the well was cut back (85 gpm to 50 gpm).

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 September, the following changes were made:

- The procedure for System Isolation –GPO-011 was revised to rev. C and is to be used with the LOTO procedure.
- A procedure for Lockout-Tag Out –HS-006 was written to be included in the SSHP
- The water level worksheet –Form-027 was revised to rev. E

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. Septembers' sampling activities included:

- The PD was samples 9/19. The samples were shipped to TA-Edison for organic analysis.
- The quarterly GW sampling task was completed 9/26. The samples were shipped to TA-Edison for organic analysis.
- The groundwater levels for the monitoring well system were recorded prior to the GW sampling.
- The August PW sample analytical data was uploaded to EQuIS
- A composite sample from the 8 spent carbon waste drums was collected (9/25) and shipped to TA-Edison for organic analysis.
- The October monthly PD samples are scheduled for Oct. 15.

On September 21, 2013 the plant discharge was sampled during the quarterly process water sampling task. The results for those samples follows:

Plant Discharge			
Parameters	**Discharge Limitations**	**Units**	**Results September 13'**
pH (range)	5.5 – 8.5	SU	6.63
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	U
Arsenic, Total recoverable	50	ug/l	U
Barium, Total recoverable	2000	ug/l	75.0
Lead, Total recoverable	50	ug/l	U
Selenium, Total recoverable	40	ug/l	U
Iron, Total recoverable	500	ug/l	U
Manganese, Total recoverable	500	ug/l	22.9
Nitrogen, Total (as N)	10	mg/l	0.17
Solids, Total Dissolved	1000	mg/l	296
Chromium, Hexavalent	100	ug/l	U
Chloride Ion	NL	mg/l	102
Fluoride Ion	NL	mg/l	0.031
Sulfate Ion	NL	mg/l	32.0

SU standard units
U analyzed for but not detected
ug/l parts per billion
J estimated value
NL monitor only
mg/l parts per million

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 (su)	Temperature (°C)
September 3	6.25	18
September 9	6.75	15
September 16	6.74	16
September 23	6.37	15
September 30	6.76	15
September Average	**6.57**	**16**

The NYSDEC discharge permit requires the plant discharge to have an average monthly pH greater than 5.50. The treatment plant effluent pH averaged 6.57 in September 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 field calibrated photo ionic detector (PID) meter calibrated to manufacturers' instructions, 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
September 3	0.0	0.0
September 9	0.0	0.0
September 16	0.0	0.0
September 23	0.0	0.0
September 30	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) in September.

Measurements to determine the well depth from the top of the injection well column to the bottom were taken on September 25. 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 9/25 the DTW readings for the injection wells were recorded.

	Sounding Depth (ft)	Transducer	Depth to Water (ft)
IW-1	144.50	106.3	6.40
IW-2	130.34	125.4	1.10
IW-3	247.68	136.4	5.23
IW-4	195.4	136.2	9.62

Water level data for the injection well falling head test analysis was collected. Although the output of the level transducers is questionable, the data for all four wells was recorded. 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 the wells is unchanged. With the exception of IW-2, the wells appear to be draining adequately.

Other routine data collected during September included:

- The plant sound level readings were recorded twice (9/6,9/20)
- 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. (9/26)
- Weekly utility meter readings were recorded.
- The extraction well packer pressures were recorded on several occasions (see Sec. 15.1) and inflated as required
- The process motor amp loads were measured and recorded 9/30.

15.0 PROCESS ANALYSIS, INTERPRETATIONS, AND CONCLUSIONS

15.1 Extraction and Influent Processes

- Discharge flows from EX-1 and EX-2 remain restricted.
- The packer in EX-1 was recharged to 41 psi on September 27.
- Motor amp load readings were recorded 9/30
- The three extraction well pumps are fully functional and are on-line.
- Two of three influent pumps are operational and are on-line. P-1 is out of service and awaiting repairs.
- The control panels indicate that P-3 does not readily shut off with the panel switches.
- There continues to be some drift in the VFD control of influent pump-1.
- The influent pumps were rotated three times in September.
- The 2 influent flow controllers are fully functional.

- Routine maintenance continues.

Extraction Well packer pressure readings:

Date	EX-1 (psi)	EX-2 (psi)
9/3/13	33	47
9/6	33	46
9/9	30	46
9/13	29	46
9/17	27	46
9/23	25	46
9/27	24 recharged to 41 psi	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 September.
- The motor amp load readings were recorded 9/30
- 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. PM tasks were completed.
- 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 September
- The pump motor amp load readings were recorded 9/30.
- The differential pressure across both vessels indicates that backwashing is due.
- 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 September
- The pump motor amp load readings were recorded 9/30
- 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 September. 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.

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.
- 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

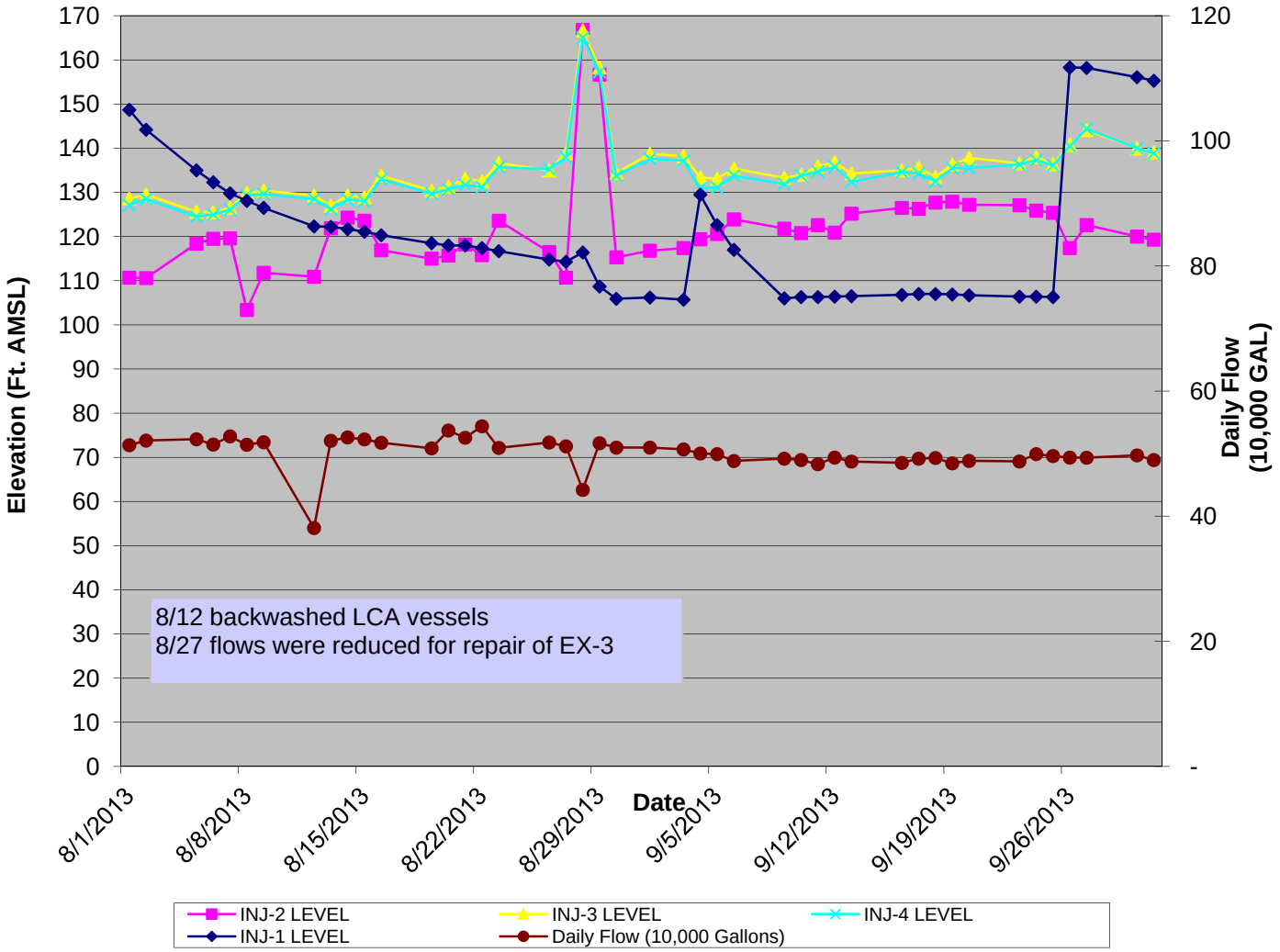


Figure 14-2 Injection Well Falling Head Test - October 3, 2013

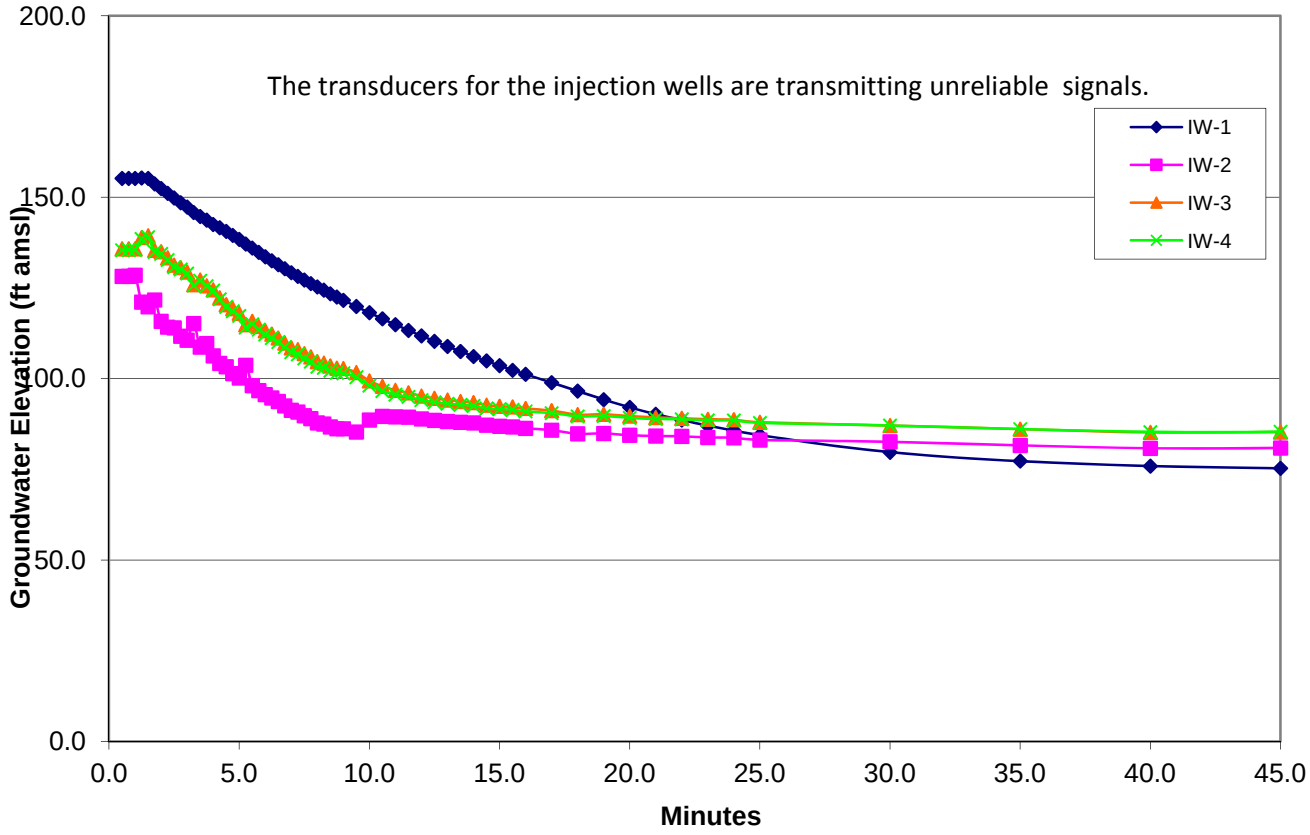
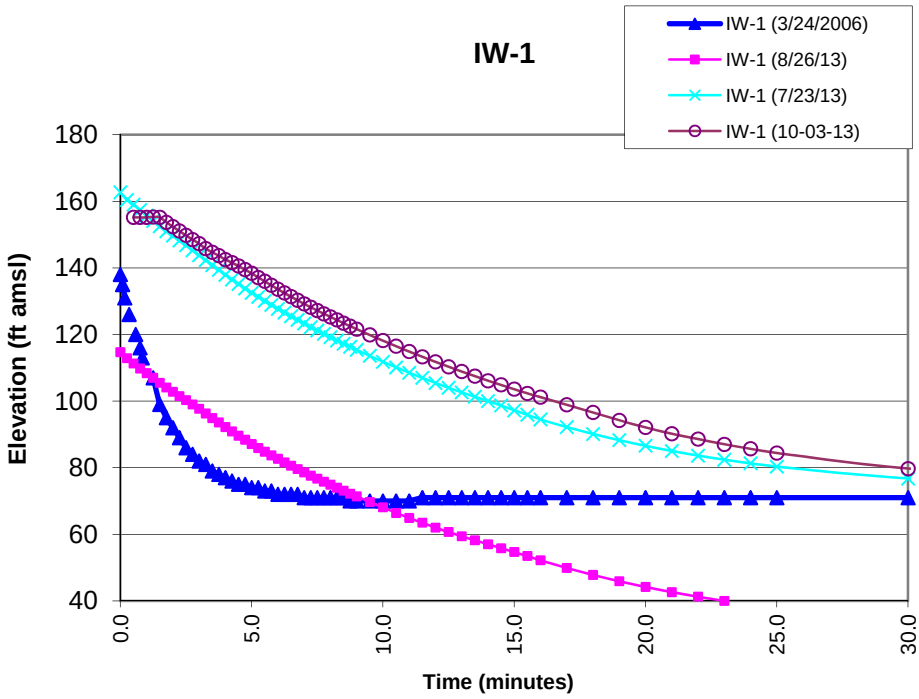
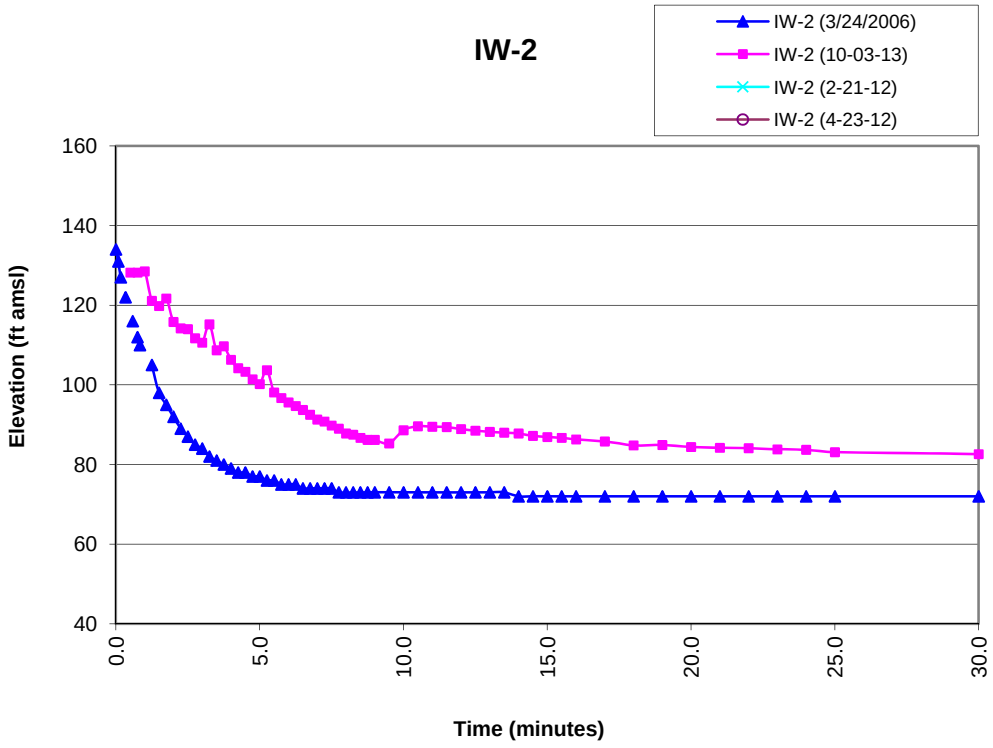
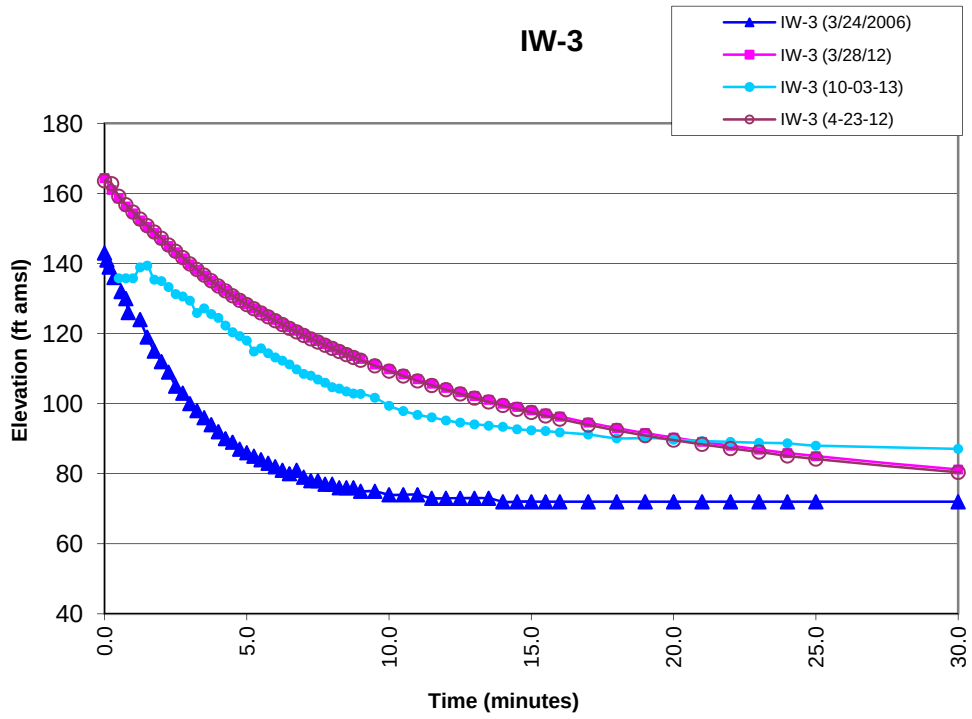
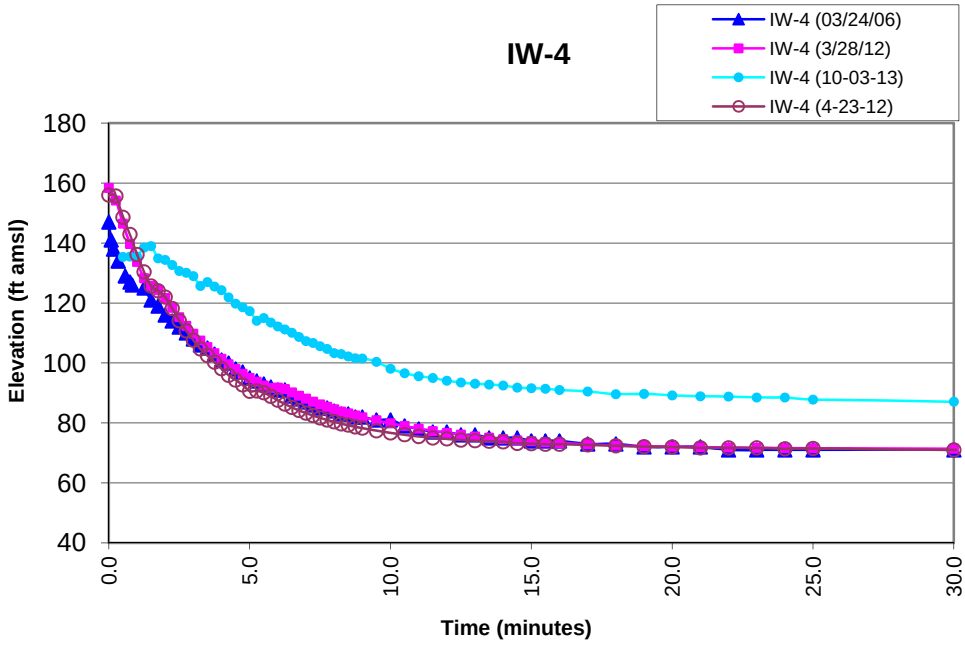


Figure 14-3 Comparison of Falling Head Tests






IW-3
IW-3 (3/24/2006)
IW-3 (3/28/12)
IW-3 (10-03-13)
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 (10-03-13)
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
9/1/2013	702125126	1054874	366
9/3/2013	703180000	510000	354
9/4/2013	703690000	500000	347
9/5/2013	704190000	500000	347
9/6/2013	704690000	1470000	340
9/9/2013	706160000	490000	340
9/10/2013	706650000	480000	333
9/11/2013	707130000	490000	340
9/12/2013	707620000	490000	340
9/13/2013	708110000	1460000	338
9/16/2013	709570000	490000	340
9/17/2013	710060000	490000	340
9/18/2013	710550000	500000	347
9/19/2013	711050000	490000	340
9/20/2013	711540000	1450000	336
9/23/2013	712990000	490000	340
9/24/2013	713480000	500000	347
9/25/2013	713980000	500000	347
9/26/2013	714480000	490000	340
9/27/2013	714970000	1530000	354
9/30/2013	716500000	415796	289
10/1/2013	716915796		
Sept '13 Treated Water Volume		**14,790,670**	
Sept '13 Avg. GPM Discharged			**342**

Table 12-1

Plant conditions and concerns (updated 9/26/13)

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	all 4 units give unreliable signals
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 **composite sample collected and shipped 9/26 for analysis**	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	Cap for EW- 2c fabricated and installed	**2**	one well is on golf course and one at the paper processor fabricate or purchase caps
Aug '13	Cracked flange on EX-3 flow meter piping	parts have been received **Repairs Completed 8/28**	2	in-house repair when practicable
Aug'13	mower pull start snapped	parts and service have been ordered**, repairs made 8/28**	3	in-house reassembly when parts are received

Aug '13	heat trace and insulation exposed on sum discharge piping	Enclosure fabricated and **installed 9/11**	3	collect needed parts and tools.
Sept '13	**Leak in housing of INF P1**	**pump taken out of service 9/17**	**3**	**requested prices on seal and housing**
Sept '13	**INF P3 does not respond to control switches**	**manually shut down and isolate pump**	**2**	**pump continues to run after shut off, even with opened switches at both MCP and HMI**
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	1	5 leaks have been observed

		approvals – Tank repaired(5/16)		
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 6/227	2	Equipment may not support the tests as designed
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	NA
Mar '13	NA
Apr '13	NA
May '13	6.05
June '13	6.33
July '13	6.59
Aug '13	6.63
Sept '13	6.57

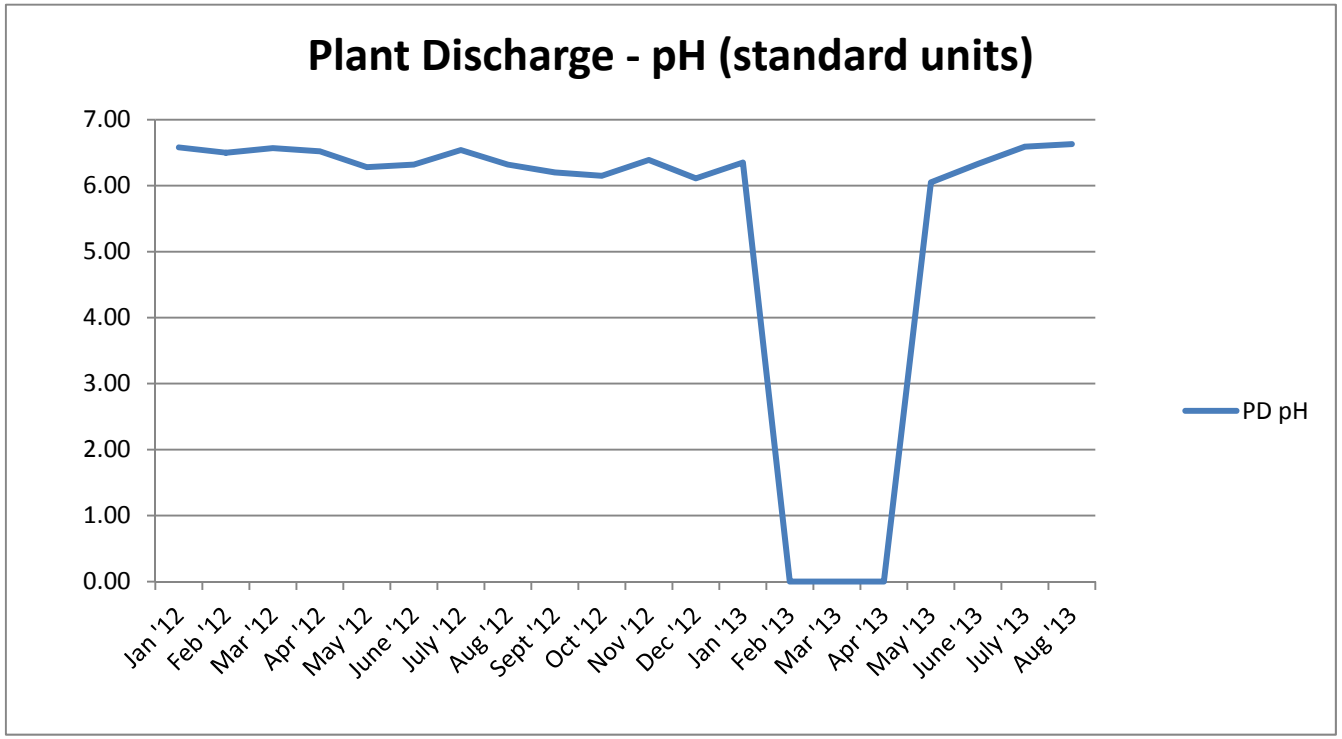
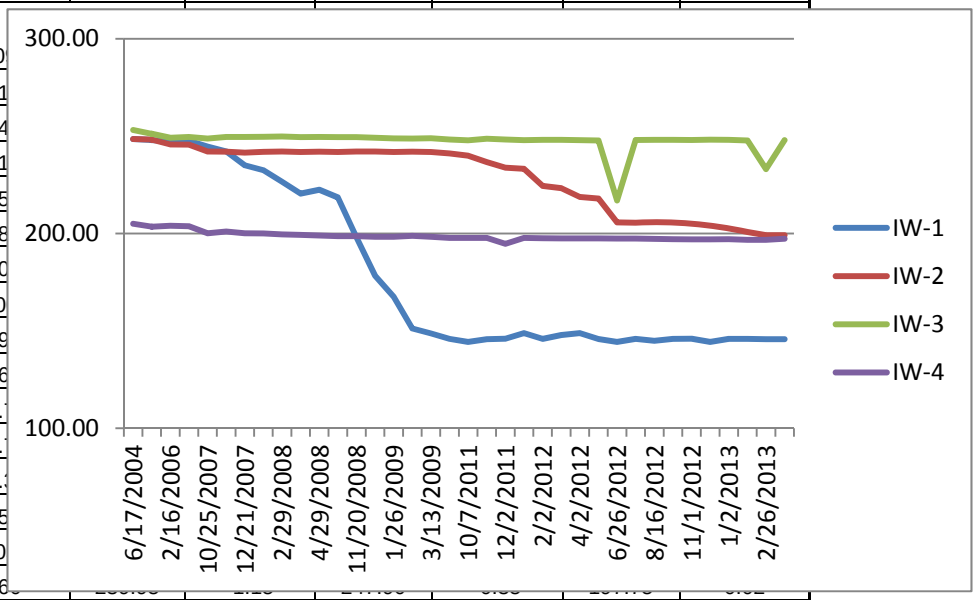


TABLE 14-2 Injection Well Soundings

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
9/25/2013	144.50	0.50	130.34	-25.86	247.84	0.00	195.60	0.00



			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'