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

MONTHLY REPORT
of the
Operations & Maintenance Activities
During
March 2012

WA D006130-19
SITE # 130015

Prepared for the:

New York State Department of Environmental Conservation

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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
DOSRs	daily operations summary reports
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, L-CA	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, V-CA	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) for March 2012. This period is defined as 0600 hours, March 1, 2012, through 0600 hours, April 1, 2012. O&M conducted during this reporting period was performed in accordance with the site O&M Manual.

The system operated for 31 days in the March reporting period. The plant experienced no downtime in March. However, the injection pumps were shut off for 61 minutes during the monthly injection well falling head tests.

Of particular note, the HMI computer issue initially experienced in February (2/23) was rectified by installing a new drive and rebooting the saved Citect files (3/13). The HMI monitoring and control system is back online.

Each workday morning, readings of key process parameters are recorded. These readings are used to monitor the plant's performance and as a basis for adjustments to the plant operations. These readings are recorded in the Daily Database which is an electronic file maintained in 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 – meter readings (CPS-Form-008)
Daily Activities Summary Report - plant operator activities (CPS-Form-007)
Daily Site Safety Inspection – equipment checklist for unsafe conditions (CPS-Form-009)
Employee Sign –In Sheet – employee sign 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 were completed and included motor amp load readings, 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 spring clean up tasks.
- The process pumps were rotated (two on-line, one off) twice during this period as part of the preventive maintenance task.
- The process pH probes were cleaned, inspected, calibrated, and adjusted, as necessary.
- The screens on the settling tanks were cleaned by backwashing with compressed air. The frequency of these cleaning activities remains steady as the influent flow is stable.
- The sludge tank (carbon and water from L-CA backwashing operations) was emptied through the filter press. This cake was dried and transferred to a lined steel drum. (~2/3 of a drum of carbon cake).
- The HMI computer (removed from Service 2/23 and shipped to Farmington for repairs) was returned to service 3/13 with a new operating hard drive and appropriate software. The Citect system was rebooted and the system is fully operational. Data and trend lines were lost for the period the system was off-line during which time, the treatment plant was manually monitored
- The M-8 pump failed. It was removed from service, disassembled, cleaned, re-assembled, and returned to service.
- The belts on the AS blower were tightened and the motor lubricated.
- Sample flow from the sampling hydrant on EX-2 was minimal. The discharge from the well pump was isolated to clear the line. This proved unsuccessful. The valve box was excavated and the plumbing disconnected and cleaned. The pump discharge flow was restored. The system was put back together and the hole filled in.
- The truck battery failed in the field. It was removed and brought back to the shop for recharging. The battery was re-installed in the truck.
- Seasonal pm was conducted on the plant mowers
- The PDB tethers were laid out and measured prior to installation in the monitoring wells. The dedicated pumps were pulled and the bags installed. (completed 3/28)
- The monitoring well sampling hoses were coiled and stowed behind the shed.
- Water was drained from both V-CA vessels.
- Maintenance was conducted on the portable generator. There is a fuel leak at the carburetor.

- The level monitors at the ASF tanks were flushed several times as a nuisance low level alarm re-occurs.
- The defective thermocouple was removed from the AS tower sump.
- A warning sign was repaired and re-hanged on the plant perimeter fence.
- The monthly truck inspection was completed.

2.0 MAINTENANCE LOGS

The following operating logbooks are currently in use:

- Site Supervisor's Daily Log CL-41
- Plant Operator's Daily Log CL-42
- Sampling support Field Log CL-37
- Well Maintenance Field Log CL-28

The project log books were returned by SAIC and are now filed in the treatment plant. 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

- Mike Peck (IT Services) was on site March 13 to reboot the HMI computer. Prior to his arrival, he installed a new drive on the computer and reloaded the operating software. Mike returned on 3/27 to restore the internet connection for this computer and to install the capability for remote access.

3.2 NYSDEC Personnel, sub-contractors and other visitors

- Din Weng (TOB lab) dropped off sample bottles (3/22)
- Valerie Egan (NCDPW) was in (3/14) to schedule sampling assistance and returned (3/15) to sample the BP-3 well cluster.

3.3 Deliveries

- Fed Ex delivered the PDBs (3/14)
- UPS delivered the bag tethers (3/19)
- Fed Ex delivered the log books from SAIC (3/29)

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 are routinely performed. These worksheets are also on file.

No safety incidents or accidents occurred during this March 2012 period.

The plant supervisor is currently taking HAZWOPER 8-hr refresher training on-line. The plant operator is due to complete HAZWOPER 8-hr refresher August 2012.

5.0 PLANNED ACTIVITIES AND SCHEDULES

The status of project work and significant corrective maintenance activities is updated on a monthly basis. This Project Status Report was updated March 29 and is electronically filed. In addition to this report, Table 12-1 - Summary of Maintenance Issues has been generated. This is a table of action items and maintenance issues concerning the treatment system.

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

6.0 MONITORING WELL WATER ELEVATIONS

The water level elevations and water quality data for the well system was last updated after the November Process Water sampling event. This database is available for review. The water level elevation data is included in the quarterly groundwater monitoring report. This data base will be next updated after the groundwater sampling event scheduled for April 19.

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 March, as measured from 0600 hours on March 1, 2011, to 0600 hours on April 1, 2012, was 17,012,400 gallons. This volume is approximately 114 percent of the monthly targeted treatment goal. The cumulative amount of treated water for this operating year (June 1, 2011 to present) is 157,991,927 gallons. This is approximately 7 percent above the targeted goal for water to be treated. 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 March, the plant discharge flow averaged 381 gallons per minute (gpm) or 548,787 gallons per day (gpd).

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 March are indicated below:

Injection Well System	Flow Average (gpm)	Volume Discharged (gallons)
IW-1	23.5	1,049,040
IG-1	73.3	3,270,166
IW-2	100.2	4,474,298
IW-3	35.5	1,584,720
IG-3	83.3	3,718,450
IW-4	81.9	3,653,872
System	**397.6**	**17,750546**

The discrepancy between the individual injection system meter readings and the total plant effluent meter readings (~7 gpm) is due in part to the type of flow meters utilized to measure the discharge (paddle wheel vs. magnetic vs. turbine). Also to be considered is the amount of sludge build up in the piping at the flow element. Thirdly, the plant effluent meter has a rounding factor of 10,000 gallons and average flows are rounded.

Flow to infiltration galleries IG-1 and IG-3 is restricted by ball valve so that flow to IW-1 and IW-3 is maximized. Currently the ball valves are closed at 50% to each gallery. By directing flow to the galleries, the total discharge to the well field is maximized without overflowing wells IW-1 and IW-3. Both galleries are draining adequately. The plant's effluent discharge is limited by injection pump system capacity.

8.0 CHEMICAL CONSUMPTION

Currently, the four chemical feed systems are offline, and their future use is not anticipated. All systems have been 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 is empty as it needs a gasket replaced at a drain flange.

Following is the inventory of the bulk chemicals at the plant:

Chemical	Inventory	
	No. of Containers	Container Type/Size
Caustic	7	55-gallon drum
Hydrochloric Acid (HCl)	1	55-gallon drum (<50 gal)
Citric Acid	1	55-gallon drum, (~200 lbs.)

These chemicals are being held on-site in case the need arises to redevelop the site's groundwater monitoring wells.

9.0 CARBON SYSTEMS

9.1 Aqueous-Phase Carbon

The presence of volatile or semi volatile organic compounds have not been detected in the effluent 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, the differential pressure across the vessels is recorded. Currently the differential pressure across vessel #1 is 2.0 psi and across vessel #2 is 3.0 psi. Both of the 10,000 pound carbon adsorber vessels (changed out in May 2008) were last backwashed in February.

Approximately 150 to 200 pounds of carbon is discharged during backwash operations. The discharged carbon is collected and placed within 55 gallons drums for off-site treatment/disposal. 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 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). VOCs have not been detected in the influent or effluent air stream during these weekly monitoring events.

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

10.0 WASTE DISPOSAL

- No hazardous waste was generated or disposed of during this reporting period.
- Eleven full drums and one partially filled drum of nonhazardous carbon sludge cake, generated during aqueous phase carbon backwashing, are stored on-site.
- No non-hazardous sludge was disposed of in March.
- The eight previously shipped and returned suspect drums are awaiting disposition. SAIC continues to work on securing a suitable TSD (treatment-storage-disposal) facility.

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. Review of monthly discharge sample 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; therefore, a request for permit reauthorization must be submitted to the NYSDEC's DER and BWP by July 1, 2013.

12.0 OTHER OPERATIONS, MAINTENANCE, OR MANAGEMENT ISSUES

As previously noted, the HMI monitoring and control system was restored and is fully operational. In addition, internet and remote access capability were re-established.

The output of influent pump 1 continues to drift as the VFD keeps the pump in the ramping mode.

The Variable Frequency Drive (VFD) for air stripper feed pump 2 continues to give earth fault errors. When active, P2 is operated through the VFD of the off-line pump.

The Variable Frequency Drives (VFDs) for Influent Pump #1 and Air Stripper Feed Pump #2 need to be serviced. This service will be initiated after the maintenance schedule/cost evaluation that is currently being requited/developed is completed.

The disposition of 8 drums of 'non-hazardous' waste is pending SAIC procuring suitable TSD facility.

Other on-going plant maintenance issues are summarized on Table 12-1 and in the Project Status Report (filed on-site).

13.0 PLANT DOCUMENTS

Procedures and standard forms are written, reviewed, and revised as needed. In March:

- The plant flow trend history worksheet was updated
- The Significant Events form was revised
- The well description specification sheet was revised for the PDB installation

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. March's sampling activities included:

- The March PD samples were collected and shipped to TestAmerica-Edison on 3/14 for organic analysis.
- The passive diffusion bags (PDB) were installed in the monitoring wells.
- The April PD samples are scheduled for 4/10.
- The quarterly GW samples are scheduled for 4/19

The January 2012 plant discharge results are summarized below:

Water Discharge			
Parameters	**Discharge Limitations**	**Units**	**Results**
pH (range)	6.5 – 8.5	SU	6.5
Tetrachloroethylene	5	ug/l	<1
Trichloroethylene	5	ug/l	0.2
1,2-(cis) Dichloroethylene	5	ug/l	<1
1,2-(trans)Dichloroethylene	5	ug/l	<1
Methylene Chloride	5	ug/l	<1
1.1 Dichloroethylene	5	ug/l	<1
1,1-Dichloroethane	5	ug/l	<1
Chloroform	7	ug/l	<1
1,1,1-Trichloroethane	5	ug/l	<1
Benzene	0.7	ug/l	<1
Toluene	5	ug/l	<1
Chlorobenzene	5	ug/l	<1
Ethylbenzene	5	ug/l	<1
Bis(2-ethylhexyl)phthalate	4200	ug/l	<10
Di-n-butyl phthalate	770	ug/l	<10
Arsenic, Total recoverable	50	ug/l	<0.005
Barium, Total recoverable	2000	ug/l	0.0762
Lead, Total recoverable	50	ug/l	<0.005
Selenium, Total recoverable	40	ug/l	<0.01
Iron, Total recoverable	500*	ug/l	<0.15
Manganese, Total	500*	ug/l	0.0055

recoverable			
Nitrogen, Total (as N)	10	mg/l	0.38
Solids, Total Dissolved	1000	mg/l	258
Antimony (Total recoverable)	3	ug/l	<0.01
Chromium, Hexavalent	100	ug/l	<0.01

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. A summary of these data is as follows:

Date	pH	Temperature (°C)
March 5, 2012	6.63	11
March 12, 2012	6.39	12
March 19, 2012	6.58	13
March 26, 2012	6.30	13
Monthly Average	**6.48**	**12**

The NYSDEC discharge permit requires the PD to have an average monthly pH greater than 5.50. The treatment plant effluent pH averaged 6.48 in March and met the monthly average pH discharge requirement. A graph of the plant discharge monthly pH average over several months is provided in Table 14.1.

Weekly air monitoring readings are taken with a PID of the influent and effluent air streams to the active vapor phase carbon vessel following the air stripper. Currently vessel #1 is on-line. A summary of the results for March follows:

Air Discharge*	
Inlet	**Outlet**
NA	NA
*PID readings indicate that the VOCs in the air stream are lower than part per million levels (ppm).	

Soundings to determine the depth to the bottom of the IWs were taken on March 7. A summary of the historical data is included in Table 14-2. While the wells are stable, there has been an accumulation of sediment in the four injection wells. 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. Since September 2011, based on physical well measurements a buildup of sediment in IW-2 has been noted.

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 were active. While the HMI off-line, the transducer signals could not be read.

The injection well falling head test was performed on March 29. 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 three of four wells are stable. The stability of the 4th well, IW-2, is undetermined as the transducer signal remains problematic.

Other data collected during March included:

- The plant sound level readings were recorded twice (included with daily worksheets).
- The depth-to-water readings were recorded for the injection wells. This was compared to the soundings and the transducer readings (included with daily worksheets)
- The flow-meter readings and the depth of water in the infiltration galleries were recorded in site supervisor's notebook.

15.0 PROCESS ANALYSIS, INTERPRETATIONS, AND CONCLUSIONS

15.1 Influent Process

- Currently, the three extraction well pumps are on-line. The pumps are controlled by water level set points in the wells and in the EQ tank.
- The sampling hydrant on well EX-2 became clogged. The valving was disconnected and the system unclogged. Flow has been restored.
- Currently, the three influent pumps are operational with 2 pumps on-line at a time.
- There continues to be some drift in the signal to influent pump-1.
- The motor for INF P2 is starting to show signs of wear. Its operation will continue to be monitored.

No other new issues arose with the extraction/influent system. Routine maintenance continues.

15.2 Flow through Aeration Process

Both treatment trains are on-line for the treatment of the influent water.

The polymer, potassium permanganate, caustic, and HCl 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 continue to operate as pass-through settling tanks. The baffles on the clarifiers were last cleaned in February.

15.3 Settling Filter Process

The frequency of air sparging of the discharge drain screens increases with the increased system flow when Injection Well Pump #3 is on-line. This pump is the newest of the three injection well pumps and works more efficiently than injection pumps #1 and #2. Therefore, when this pump is in operation, more water may be discharged to the injection well system. The tanks are drained and cleaned as necessary. The system is fully functional.

15.4 Air Stripping Process

- The three ASF pumps are operational and are rotated into service two at a time.
- 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.
- Pump #3 emits a high pitched whine, which will require future address.
- The defective thermocouple was removed from the AS tower sump.
- The vapor phase carbon beds are routinely drained of condensate.
- 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.
- A pin-hole leak has developed in the side wall of LCA vessel 2
- The differential pressure across the vessels is well within operating range and backwashing will not be required for some time.

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 online and fully operational.
- All three INJ pumps are operational with 2 units on-line.
- The level transducer in IW-2 continues to produce an unreliable signal.
- The galleries are adequately draining.

No other issues were encountered with the injection system in march. Routine maintenance tasks continue.

16.0 GROUNDS

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

16.1 Plant Perimeter

- General outdoor clean up continues.
- Perimeter fence warning signs are re-hanged as necessary

16.2 Well Field

- Upkeep of the well field is coordinated with SUNY Farmingdale's maintenance department. The field has been adequately mowed and access remains good.
- Fallen debris is routinely removed from the well paths.
- The PDB were installed in the monitoring wells. The associated dedicated pumps and hoses were removed, decontaminated and stowed at the plant.

16.3 Other

- The path to the BP-3 cluster which is generally in bad shape was somewhat refurbished and is quite usable.
- The monthly inspection of the plant truck was completed.
- Paper and debris were removed along the path to EX-3

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

FIGURES

Figure 14-1 Injection Well Elevations and Daily Flow

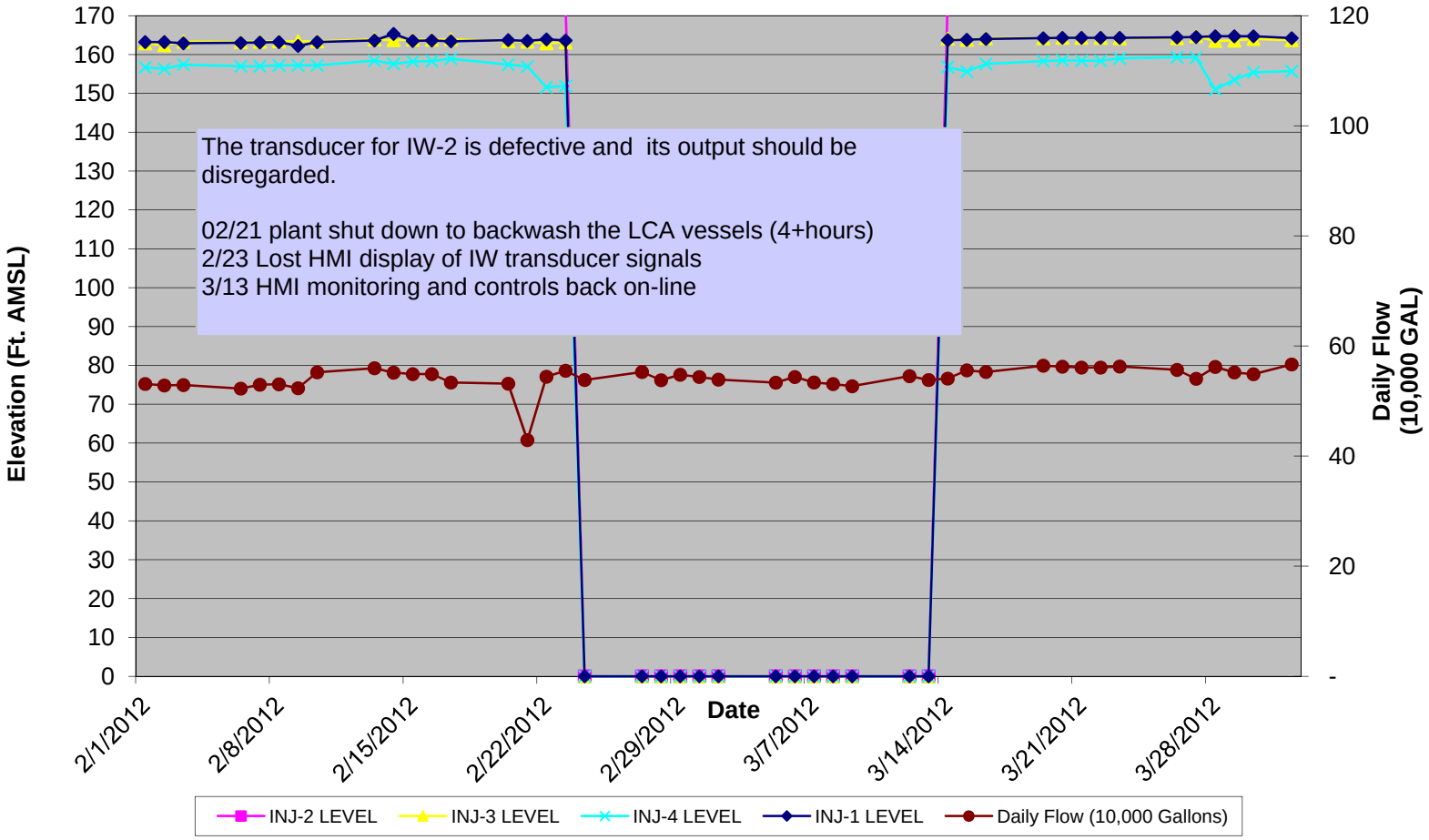


Figure 14-2 Injection Well Falling Head Test - March 29, 2012

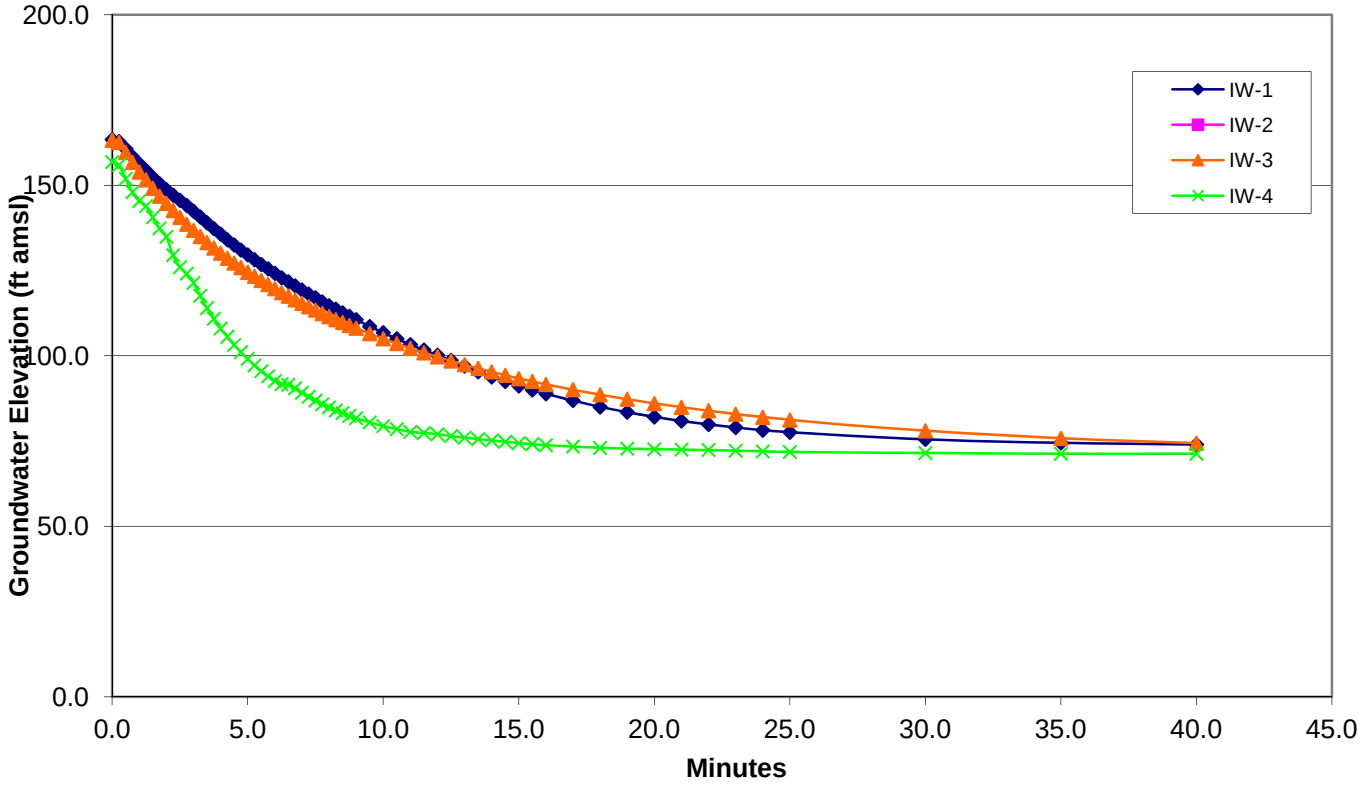
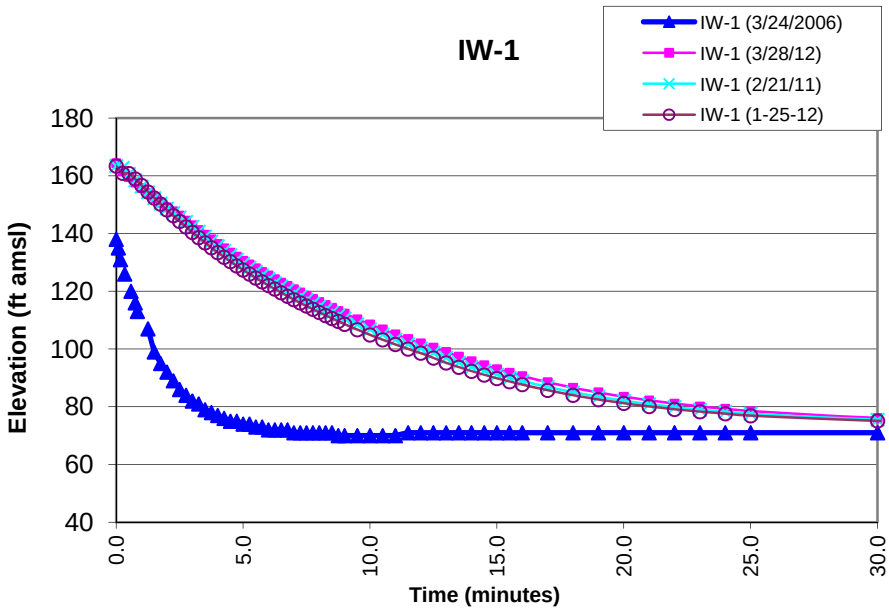
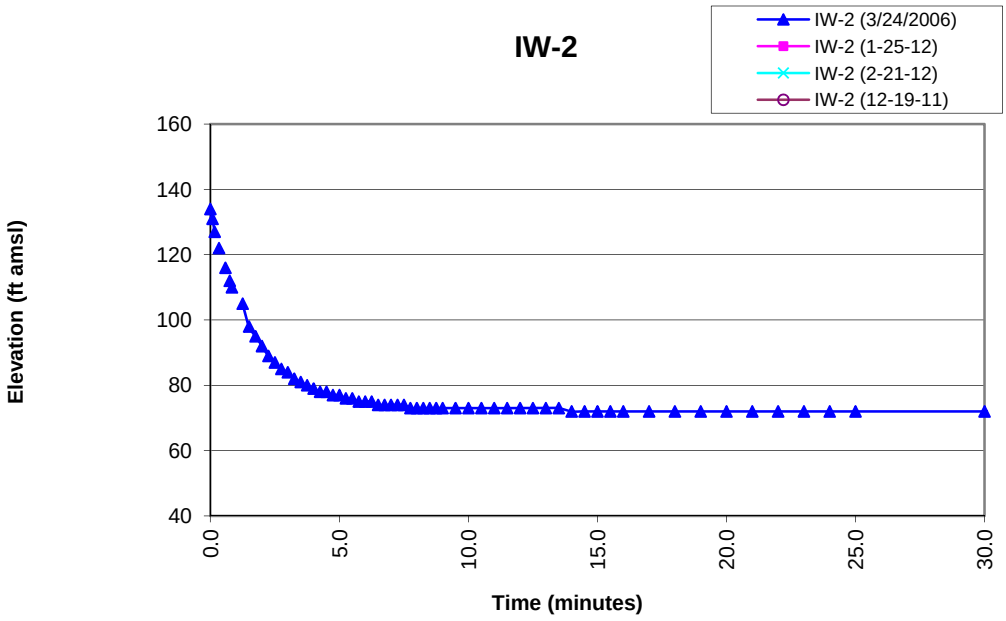
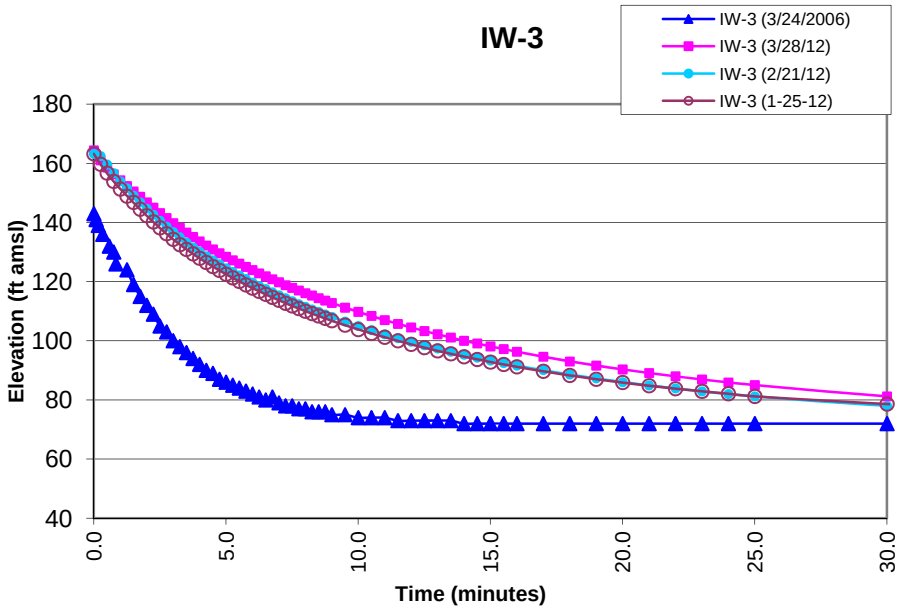


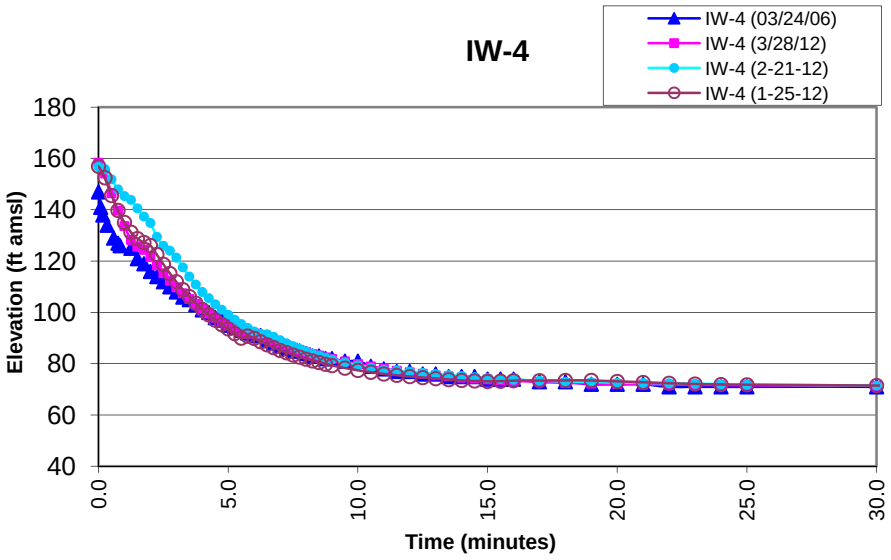
Figure 14-3 Comparison of Falling Head Tests



Due to the lack of reliable signal from the transducer in Injection Well #2, the comparison of current readings to historical data is not necessary.




IW-3
IW-3 (3/24/2006)
IW-3 (3/28/12)
IW-3 (2/21/12)
IW-3 (1-25-12)
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 (1-25-12)
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 FLOW METER DAILY TOTALIZER READINGS

March 2012

DATE	TOTALIZER READING	GALLONS PER DAY	GALLONS PER MINUTE
3/1/2012	508355007	574993	399
3/2/2012	508930000	1620000	375
3/5/2012	510550000	530000	368
3/6/2012	511080000	530000	368
3/7/2012	511610000	550000	382
3/8/2012	512160000	540000	375
3/9/2012	512700000	1520000	352
3/12/2012	514220000	580000	403
3/13/2012	514800000	540000	375
3/14/2012	515340000	540000	375
3/15/2012	515880000	570000	396
3/16/2012	516450000	1630000	377
3/19/2012	518080000	610000	424
3/20/2012	518690000	560000	389
3/21/2012	519250000	560000	389
3/22/2012	519810000	560000	389
3/23/2012	520370000	1690000	391
3/26/2012	522060000	560000	389
3/27/2012	522620000	540000	375
3/28/2012	523160000	560000	389
3/29/2012	523720000	550000	382
3/30/2012	524270000	1097407	381
4/1/2012	525367407		
March 2012 TOTAL TREATED WATER		**17,012,400**	
March 2012 AVG. GPM DISCHARGED			**381**

Table 12-1
Summary of Plant Maintenance Issues

Date Added	Problem or Condition	Action	Cost	Option	Option Cost	Priority level
June 2011	ASF Sys Pump #3 Motor motor bearings are making noise	Replace 10.0 hp motor when it fails	$800	none	n/a	1
June 2011	VFD ASF-P2	Replace/service	$?	Leave out of service	0	2
2008	INF Sys check valves (3) not operating correctly, must be manually opened and closed	Rebuild existing check valves in place (3)	Included in Budget	a-replace CV with like kind cast iron swing check b-replace CV with pvc ball check (3)	$X $400	2
2008	L-CA Sys. Check valves not operating correctly, must be manually opened and closed	Rebuild existing check valves in place (3)	$675 ea	a-replace *CV* with like kind cast iron swing check b-replace *CV* with pvc ball check	$X $400 +	2
2008	INJ Pump shut off valves cannot isolate individual pumps	Replace valves (4) w/ 6" PVC valves	Included in Budget	Leave valves in place	$0	2
2008	ASF Sys check valves not operating correctly, must be manually opened and closed	Rebuild check valves (3)	Included in Budget	a-replace CV with like kind cast iron swing check b-replace CV with pvc ball check	$X $400+	2
Aug. 2009	EQ Tank Discharge Valve Cannot isolate tank	Replace valve w/8" PVC valve	Included in Budget	Leave valve in place (empty tank when it needs to be isolated)	$0	3
2008	RCY Sys. Check valves not operating correctly, must be manually opened and closed	Rebuild check valves (2)	$675 ea	a-replace *CV* with like kind cast iron swing check b-replace *CV* with pvc ball check	$X $400+	3
July 2011	VFD INF-P1 Ramping	Replace/service	$?	Leave in Place – Control flow by throttling valves	0	2
2008	INJ Pump check valves (2) not operating correctly, must be manually opened and closed	Rebuild existing check valves in place (2)	Included in Budget	a-replace CV with like kind cast iron swing check b-replace CV with pvc swing check	$1300	2
Dec. 2011	LCA -V2 (Pin Hole leak)	Drips -not a hazard cost $1000 to weld and need to shut down plant	$1000	Under enhanced inspection action taken as needed	0	3
Aug. 2010	IW-2 Transducer	Replace transducer (may require tech support)	$1200	Manually monitor well	0	3
2008	Discharge Manifold leak	Make repairs	$500	Leave as is	0	3

Date Added	Problem or Condition	Action	Cost	Option	Option Cost	Priority level
Aug. 2008	Air Compressor system is worn and leaking and in need of an overhaul	Have system serviced	$12,000	a-replace both units with one sized for current duty b-run system on as-needed basis	$ 0	4
2009	Filter Press – control cabinet hydraulic leaks	Have system serviced	$?	Leave as is		4
2009	Sludge Transfer Pump is undersized for filter press feed	Leave pump as is	$0	Replace pump with M-8	$2500	4
2009	Sludge transfer piping	Leave plumbing as is	$0	Re-pipe press feed	$200	4
	INF Pump Seals (historically, pump 2 is due to fail)	Replace as needed (1)	$0	Proactively replace seals	$300	3
Jan. 2012	INF Pump-2 Motor (1) Motor bearings are starting to make noise	Replace 5.0 hp motor when fails	$600	Rebuild motor?		3
	INJ Pump seals (historically, pump 1 is due to fail)	Replace as needed (1)	$0	Proactively replace seals	$300	3
	Priority level –	1- Urgent and must be done 2- Not urgent but needs to be done 3 – Not urgent but should be done 4 – Would like done				

Table 14-1 Plant Discharge pH

Month	Monthly pH average
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	6.48

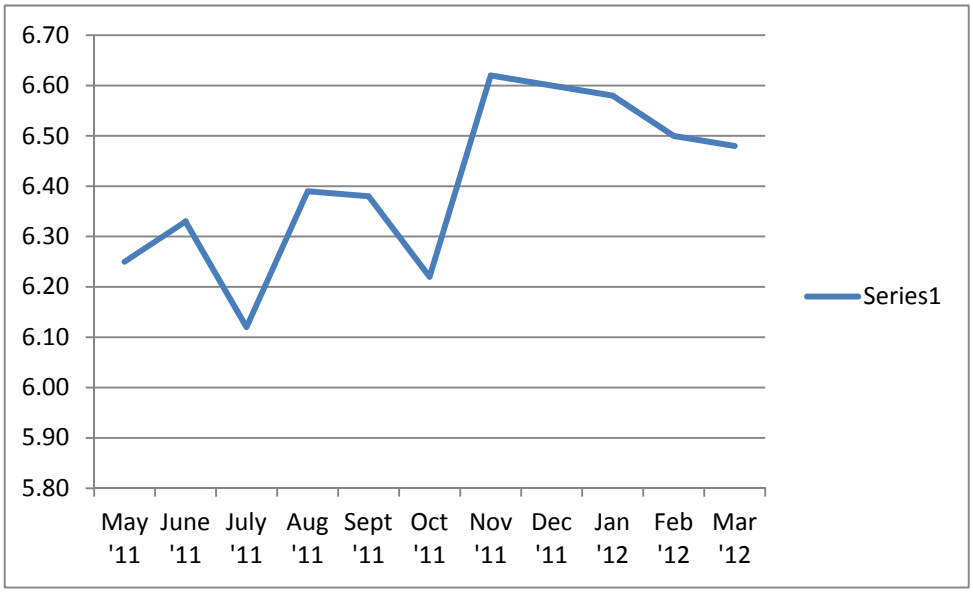


TABLE 14-2 Injection Well Soundings

	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
3/22/2011	145.80	1.30	241.60	0.00	248.90	-0.20	198.00	0.02
4/12/2011	145.80	0.00	241.60	0.00	248.50	-0.40	197.50	-0.50
5/23/2011	148.80	3.00	241.60	0.00	248.40	-0.10	197.50	0.00
6/22/2011	145.80	-3.00	241.60	0.00	248.00	-0.40	197.83	0.33
7/15/2011	147.28	1.48	241.60	0.00	247.70	-0.30	197.80	-0.03
8/12/2011	145.85	-1.43	241.50	-0.10	248.25	0.55	197.80	0.00
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
Change From 6/17/04 to Present								
		-100.65		-25.20		-5.10		-7.50
Change From 6/04 thru 2/06								
		-1.00		-2.81		-4.01		-1.02
Change from 3/06 thru 10/07*								
		-2.90		-3.57		-0.87		-3.61
Change 11/07 thru 3/08**								
		-21.70		-0.10		-0.10		-1.75
Change 4/08 to present***								
		-74.65		-18.72		-1.5		-1.48

*Injection wells IW-2 and IW-3 were redeveloped during week ending 3/17/2006
**Injection wells IW-1 and IW-3 were redeveloped during week ending 11/9/07
***Injection wells IW-1 and IW-3 were redeveloped during week ending 4/25/08

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