

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

**MONTHLY REPORT
of the
Operations & Maintenance Activities
During
December 2011**

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
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.
HVAC	heating, ventilation, and air conditioning
IG	infiltration gallery
IW	injection well
LGAC	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
PD	plant discharge
PID	photo ionization detector
PLC	programmable logic controller
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	vapor-phase granular activated carbon
VFD	variable frequency drive
VOCs	volatile organic compounds

1.0 OPERATION AND MAINTENANCE ACTIVITIES

HRP Associates, Inc. (HRP) continued its daily operation and maintenance (O&M) of the Claremont Polychemical Superfund Site and its groundwater treatment system (GWTS) for December 2011. This period is defined as 0600 hours, December 1, 2011, through 0600 hours, January 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 December reporting period. The plant experienced 246 minutes of downtime when the plant was shut down to backwash the carbon beds. The injection pumps were shut off for an additional 57 minutes to perform the injection wells falling head test.

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 records (Daily Data Logs) are kept on-file at the plant.

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. The DOSR and the daily worksheets are kept on file at the plant.

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. These documents are filed on-site.

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 landscaping tasks around the plant and in the well field.
- The process pumps were rotated (two on-line, one off) three times 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 almost daily by backwashing with compressed air.
- The outdoor landscaping project to remove weeds from the stone covered areas continued.
- Both liquid side carbon adsorber (CA) vessels were backwashed with treated water. The discharged carbon was collected through the filter press.
- Repairs were made to the dedicated hose reel for monitoring well WT-01. The reel was leak tested.
- The snow plow was installed on the plant truck. The rigging was road tested.
- The level monitors on the three outdoor storage tanks were heat traced, insulated, and covered. The heating elements were activated.
- The floor sump was cleaned of carbon and stones. The carbon was collected through the filter press.
- The sump pump HL float switch was secured to the top of the pump for better operation.
- The water supply valve on the mezzanine was repaired.
- The EW-3 pump level controls were adjusted.
- The M-8 carbon pump was disassembled and cleaned of rocks and debris and returned to service.
- Influent pump 1 was taken off line and its mechanical seal replaced. The pump was returned to service.
- The perimeter fence warning signs were re-secured where necessary.

2.0 MAINTENANCE LOGS

The following operating logbooks are currently in use:

- Site Supervisor's Daily Log CL-41
- Plant Operators Daily Log CL-42

Except for the above and log book Nos. 36, 39, and 40, all the system log books were sent to SAIC Harrisburg to be copied into the Project Archives. They are to be returned and kept on file at the GWTP where they will be available for detailed review. 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.

See the listing at the end of this document for the location of referenced documents, logs and worksheets.

3.0 TECHNICAL SUPPORT ACTIVITIES

3.1 HRP Personnel

No HRP personnel were on site at Claremont in December but several ongoing projects were coordinated through the Farmington Office.

3.2 Sub-contractors and Manufacturing Representatives

- Backflow Specialists were in to conduct the annual backflow preventer device inspection.
- Test America was in to pick up the December organic samples
- Tom Scinto of Cablevision was in to go over phone/internet service packages.
- Cablevision was in to go over the logistics of running cable from the street to the control room.

3.3 Deliveries

- Mail was delivered on 5 occasions
- Federal Express delivered a sample cooler and sample bottles on 2 occasions.
- Federal Express delivered the EES gas order.

3.4 Visitors

There were no other visitors to the site

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 December 2011 period.

5.0 PLANNED ACTIVITIES AND SCHEDULES

The status of project work and significant corrective maintenance activities is updated on a monthly basis. This Activities Schedule was last updated December 27 and is filed on-site.

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 quarterly process water sampling task was completed in November. After the event, the water level elevations and water quality data for the extraction wells were recorded in the database. The updated database is available for review. The table will be updated after the next groundwater sampling event is completed.

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 December, as measured from 0600 hours on December 1, 2011, to 0600 hours on January 1, 2012, was 16,413,979 gallons. This volume is approximately 109 percent of the monthly targeted treatment goal. The cumulative amount of treated water for this operating year (June 1, 2011 to present) is 110,033,296 gallons. This is approximately 6 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.)

The average discharge flow for December was 368 gallons per minute (gpm) and 529,483 gallons per day (gpd).

The flow monitoring units for the individual IW systems are fully functioning. This allows for reading the flow rate and volume discharged to each well system. The relative flows for December are indicated below:

Injection Well System	Flow Average (gpm)	Volume Discharged (gallons)
IW-1	92	4,121,880
IW-2	84	3,764,210
IW-3	111.5	4,979,260
IW-4	76	3,384,910
System	364	16,250,260

Flow to infiltration galleries IG-1 and IG-3 is restricted so that flow to IW-1 and IW-3 is maximized. Both galleries are draining adequately. The plant's effluent discharge flow is maximized and 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. Currently, the chemical feed tanks and feed tubing contain water.

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
Citric Acid	1	55-gallon drum, (~200 lbs.)

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.

Both carbon adsorber vessels were backwashed in December. As part of the daily monitoring, the differential pressures across the vessels are recorded. The differential pressures are stable.

Approximately 1.5 drums of spent carbon were collected after the backwash operation and sump clean up. This carbon has yet to be disposed of. 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). VOCs have not been detected in the 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 are on-site.
- No non-hazardous sludge was disposed of in December. The eight previously shipped and returned suspect drums are awaiting disposition.

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 this permit requires periodic submittal of discharge monitoring results, monthly discharge monitoring reporting is not required. Monitoring data will be provided to the NYSDEC upon request.

A letter requesting an extension of the authorization to discharge treated groundwater to the groundwater aquifer was submitted to Mr. Brian Baker of the NYSDEC Division of Water. The response and permit extension are pending.

12.0 OTHER OPERATIONS, MAINTENANCE, OR MANAGEMENT ISSUES

During the rotation of the process pumps it was determined that the reinjection system was more efficient with solely the use of pump 3. Due to system plumbing issues and the action of pump 3, there is little gain in flow from activating a second pump.

It has not been decided when or if the use of passive diffusion bags (PDB) will replace bladder pumps as the method for groundwater sampling. This has delayed the scheduling of the January quarterly sampling event. If bladder pumps are to be used, several bladders will be needed. If the PDBs are to be used, these will need to be procured and installed.

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 disposition of 8 drums of 'non-hazardous' waste is pending

Injection well 2 is starting to back up and flow to it has been restricted

Several other ongoing plant-wide issues include:

- Determine long term plan for process pump check valves.
- Repair leaks in injection pump discharge manifold.
- Replace bathroom fan.
- Replace level transducer for IW-2
- Update plant documents as necessary
- Complete January's PD sampling task.
- Schedule quarterly GW sampling task
- Repair leak on LCA vessel 2
- Replace seals on snow plow hydraulic pump

13.0 PLANT DOCUMENTS

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

- Sections 16 - Grounds was added to the monthly report

- Sections 9 and 10 and Tables 4-7 were revised in the O&M manual.
- Procedure GPO-19 was revised to Rev. B (mechanical seal replacement).

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. December's sampling activities included:

- The December PD samples were shipped 12/14 to TestAmerica-Edison for organic analysis.
- The January monthly PD samples are scheduled for 1/11.

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)
Dec. 5, 2011	6.66	14
Dec. 12, 2011	6.53	10
Dec. 19, 2011	6.68	10
Dec.27, 2011	6.52	11
Monthly Average	6.60	11.25

The NYSDEC discharge permit requires the PD to have an average monthly pH greater than 5.50. The treatment plant effluent pH averaged 6.60 for December and met the monthly average pH discharge requirement.

Soundings to determine the depth to the bottom of the IWs were taken on December 2. A summary of the historical data is included in Table 14-1. While the wells are stable, this data indicate that since the beginning of monitoring on June 17, 2004, 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, there has been a buildup of sediment in IW-2. During this time, the DTW has decreased. Flow to this well has been restricted.

Water elevations in the IWs are 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. The transducer for IW-2 continues to generate an unreliable signal.

The injection well falling head test was performed on December 19. 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 4th well, IW-2 appears stable although the transducer is not functioning correctly.

Other data collected during December included:

- The plant air was sampled with PID on 4 occasions.
- The process motor amp load readings were recorded
- The plant sound level readings were recorded twice.
- The depth-to-water readings were recorded for the injection wells. This was compared to the soundings and the transducer readings
- The flow-meter readings and the depth of water in the infiltration galleries were recorded.

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 heat system was activated on the level monitor if the EQ tank.
- 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 mechanical seal of INF P1 was replaced and pump returned to service.

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.

15.3 Settling Filter Process

The frequency of air sparging of the discharge drain screens has increased. 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 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.
- Both vessels were backwashed with compressed air then with treated water.
- A pin-hole leak has developed in the side wall of LCA vessel 2

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. Flow sensors and transmitters installed in the discharge line to each injection well system are on-line and connected to the MCP and HMI.

- The plant discharge system is online and fully operational.
- Water levels in IW-2 are rising and may require attention.
- All three INJ pumps are operational.
- The level transducer in IW-2 continues to produce an unreliable signal.
- The galleries are adequately draining.
- There is a leak in the PVC piping at the discharge of pump 2 and in the manifold prior to the main flow monitor.

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

16.0 GROUND

16.1 Plant Perimeter

Routine maintenance tasks continue outside the plant. This includes weather related clean up tasks and landscaping duties. A project to remove the maintenance burden of weed control in the rock filled drainage area is ongoing.

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.

16.3 Other

- The snow plow brackets and control system were installed on the plant truck. The system was tested and is ready to go.
- The sand and debris piles remain to the north of the plant.
- Cablevision was on site to determine the logistics of installing underground cable from the pole inside the first gate to the plant.

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

FIGURES

Figure 14-1 Injection Well Elevations and Daily Flow

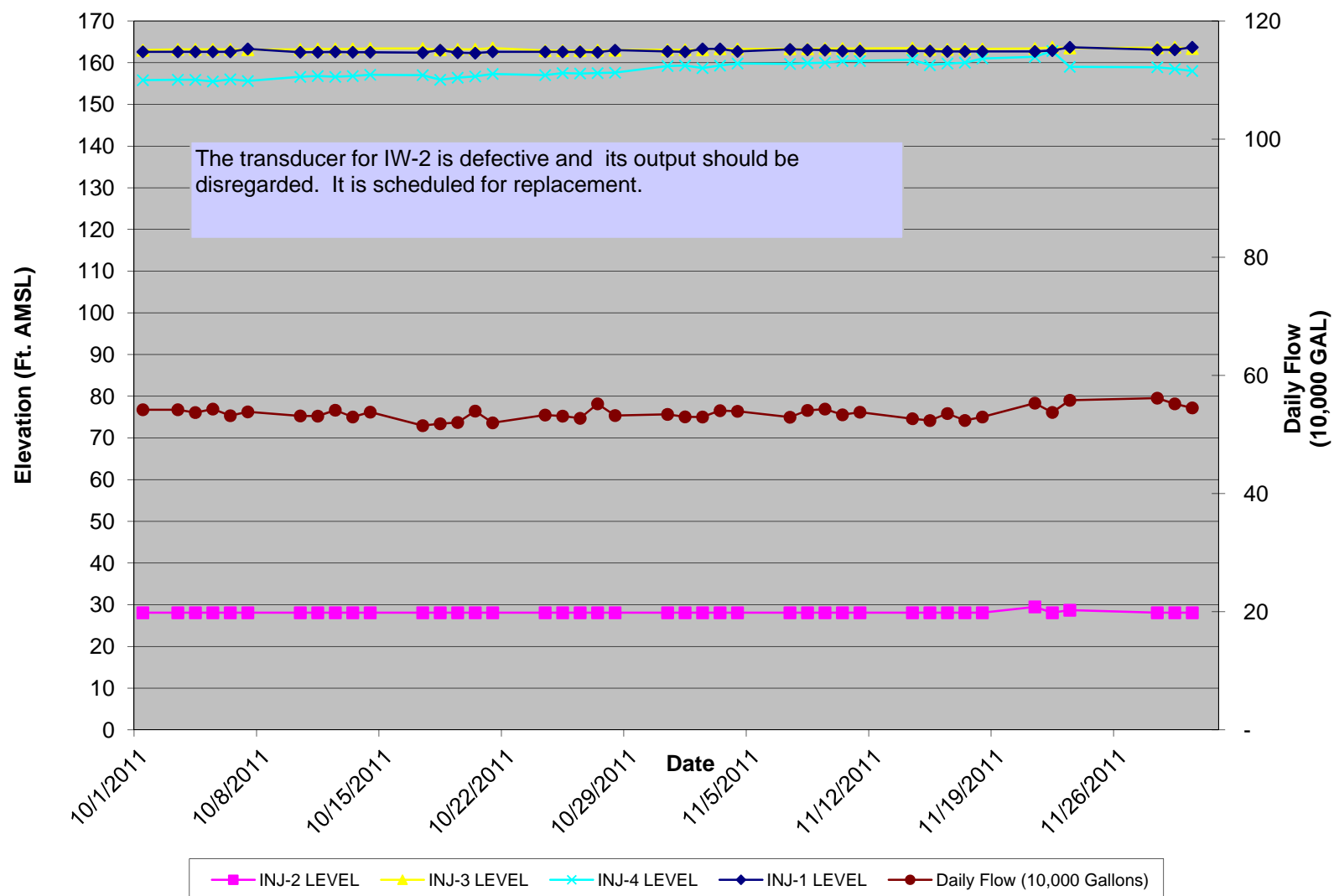


Figure 14-2 Injection Well Falling Head Test December 19, 2011

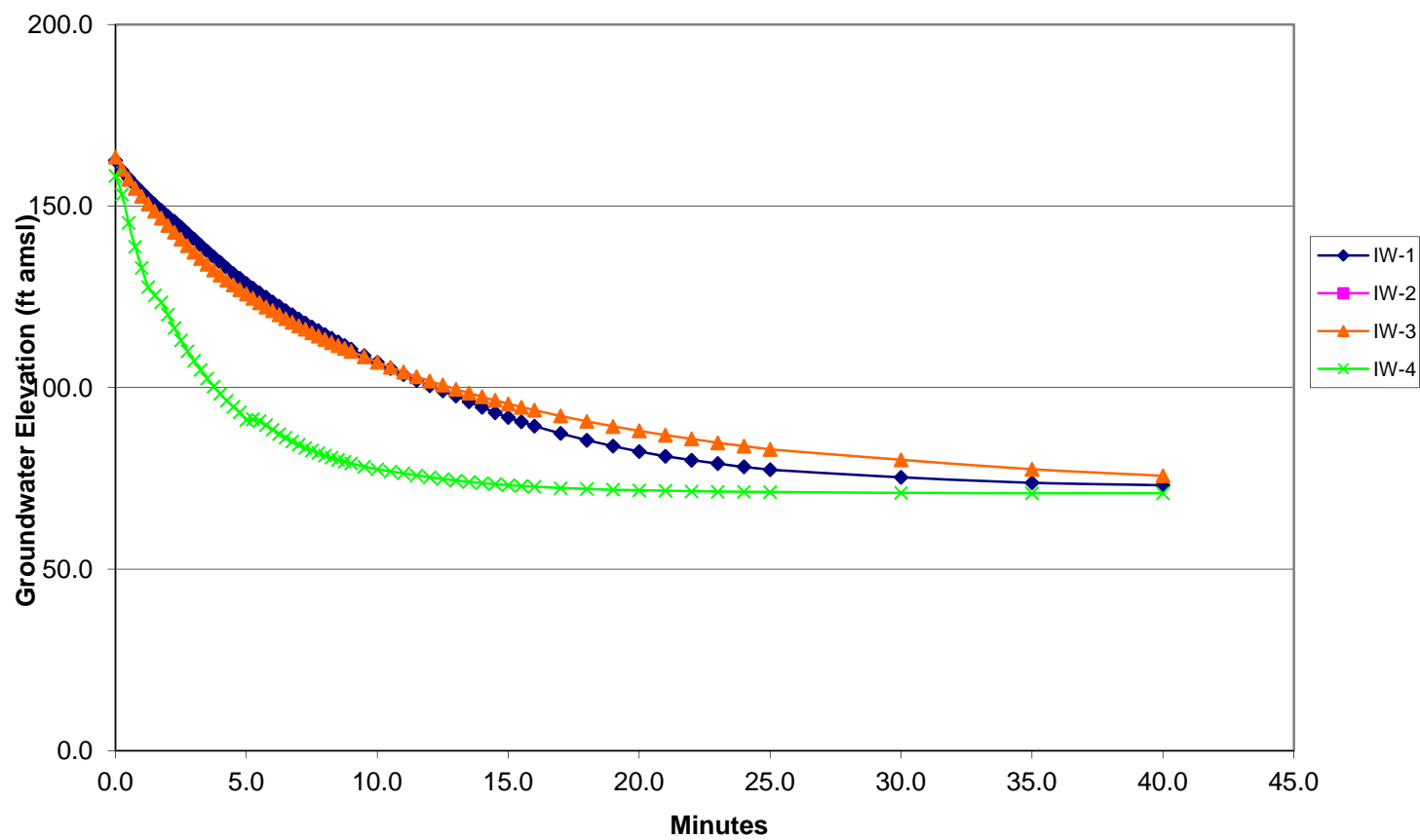
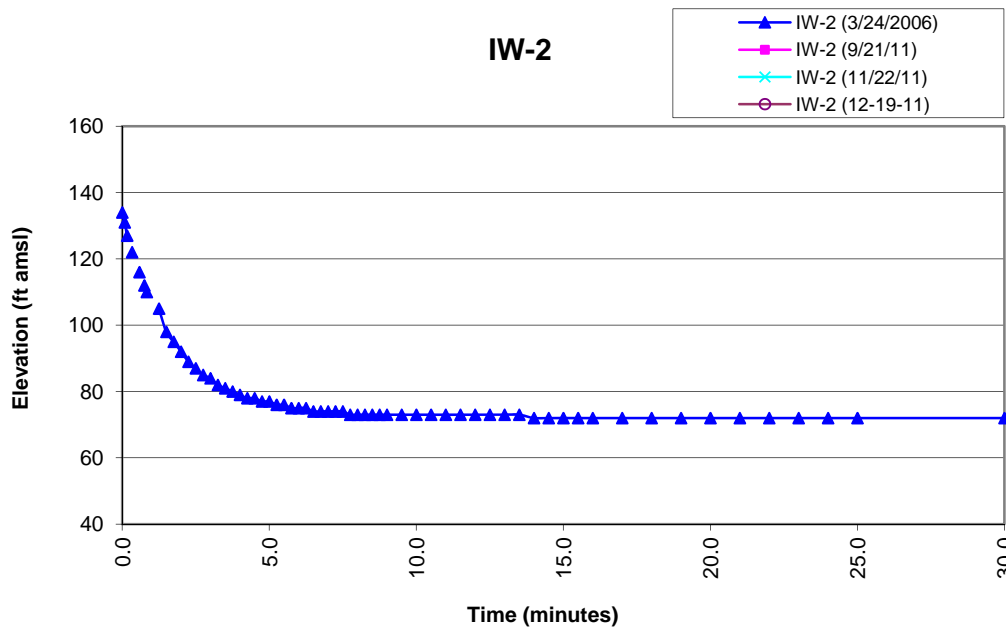
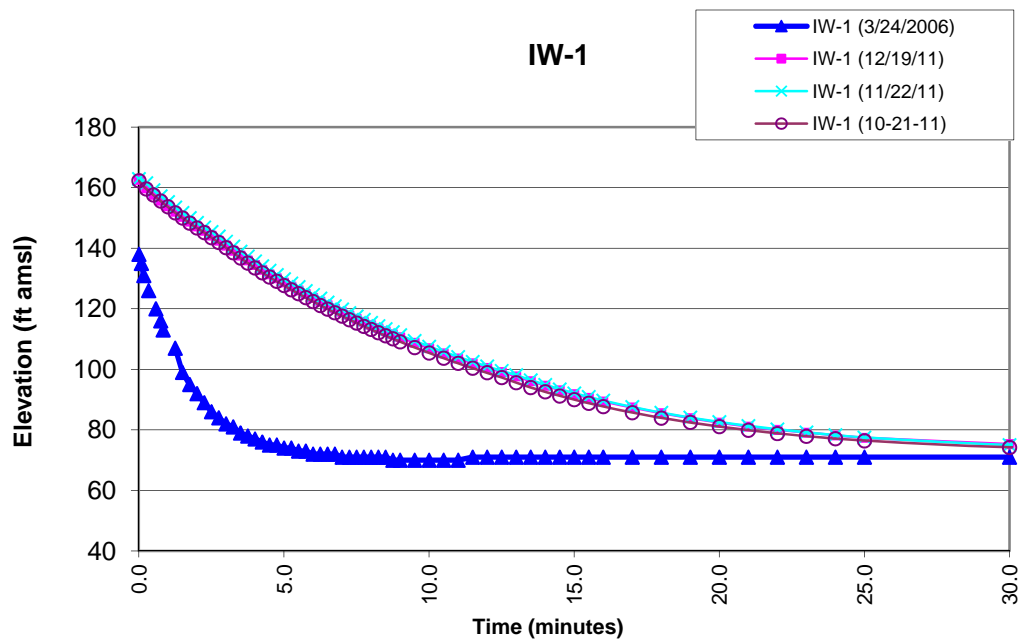
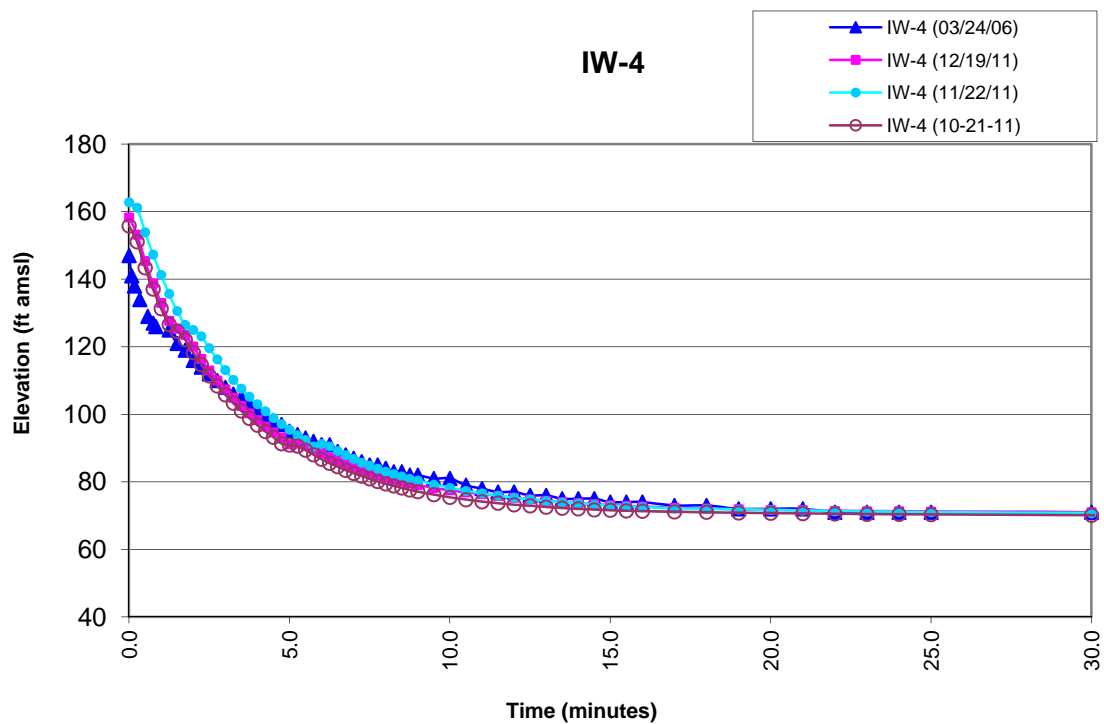
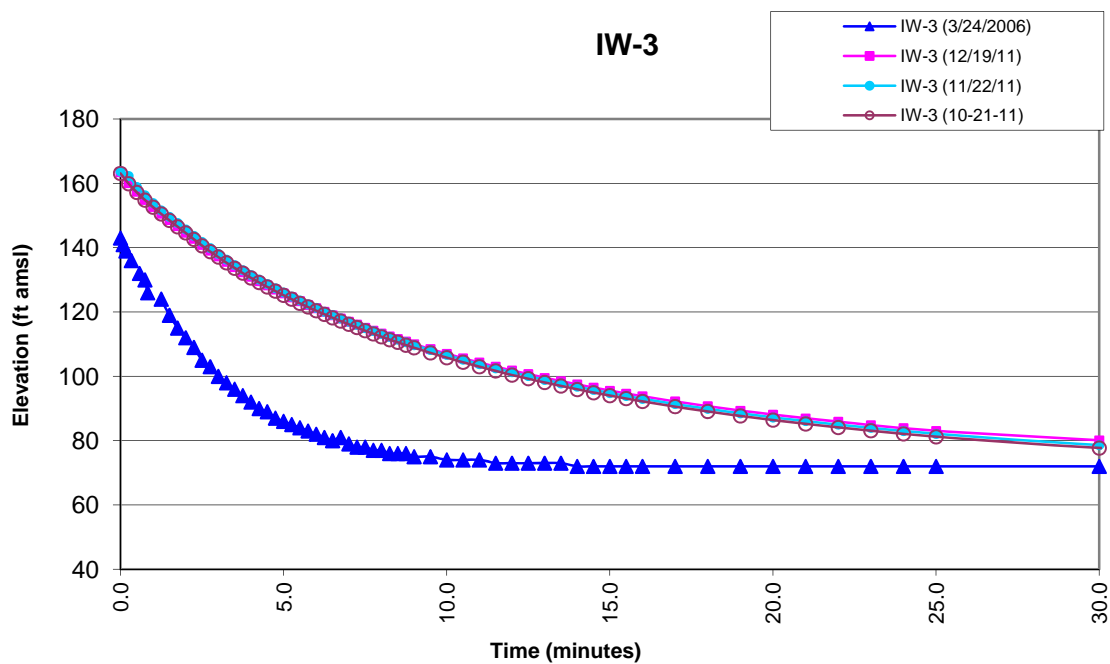


Figure 14-3 Comparison of Falling Head Tests





TABLES

Table 7-1 Magnetic Flow Meter Daily Totalizer Readings

December 2011

DATE	TOTALIZER READING	GALLONS PER DAY	GALLONS PER MINUTE
12/1/2011	460994797	585203	406
12/2/2011	461580000	1560000	361
12/5/2011	463140000	450000	313
12/6/2011	463590000	520000	361
12/7/2011	464110000	520000	361
12/8/2011	464630000	530000	368
12/9/2011	465160000	1580000	366
12/12/2011	466740000	520000	361
12/13/2011	467260000	480000	333
12/14/2011	467740000	580000	403
12/15/2011	468320000	520000	361
12/16/2011	468840000	1620000	375
12/19/2011	470460000	520000	361
12/20/2011	470980000	540000	375
12/21/2011	471520000	540000	375
12/22/2011	472060000	560000	389
12/23/2011	472620000	2140000	372
12/27/2011	474760000	530000	368
12/28/2011	475290000	490000	340
12/29/2011	475780000	600000	417
12/30/2011	476380000	1028776	357
1/1/2012	477408776		
Dec. 2011 TOTAL TREATED WATER		16,413,979	
Dec. 2011 AVG. GALLONS PER MINUTE DISCHARGED			380

TABLE 14-1 Injection Well Soundings

Date	Injection Well 1		Injection Well 2		Injection Well 3		Injection Well 4	
	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
8/16/2004	247.90	0.07	248.18	0.01	251.00	0.20	203.40	0.10
9/14/2004	247.95	-0.05	248.15	0.03	251.10	-0.10	203.95	-0.55
10/28/2004	247.79	0.16	248.20	-0.05	251.20	-0.10	203.15	0.80
11/15/2004	247.40	0.39	248.26	-0.06	251.03	0.17	204.03	-0.88
12/29/2004	247.87	-0.47	248.33	-0.07	250.82	0.21	204.40	-0.37
1/10/2005	247.83	0.04	248.12	0.21	250.54	0.28	204.70	-0.30
2/16/2005	247.50	0.33	248.25	-0.13	250.45	0.09	204.36	0.34
3/18/2005	247.82	-0.32	248.10	0.15	250.40	0.05	204.43	-0.07
4/5/2005	247.78	0.04	248.13	-0.03	250.47	-0.07	204.20	0.23
5/10/2005	247.81	-0.03	248.14	-0.01	250.45	0.02	204.22	-0.02
6/30/2005	247.62	0.19	247.25	0.89	250.36	0.09	204.04	0.18
7/26/2005	247.67	-0.05	246.82	0.43	249.93	0.43	204.11	-0.07
8/29/2005	247.71	-0.04	246.50	0.32	249.78	0.15	204.17	-0.06
9/27/2005	247.77	-0.06	246.29	0.21	249.77	0.01	203.90	0.27
10/24/2005	247.78	-0.01	246.00	0.29	249.44	0.33	203.84	0.06
11/14/2005	247.51	0.27	246.19	-0.19	249.10	0.34	203.57	0.27
12/27/2005	247.60	-0.09	245.70	0.49	249.32	-0.22	203.83	-0.26
1/27/2006	247.51	0.09	246.09	-0.39	249.21	0.11	203.98	-0.15
2/16/2006	247.50	0.01	245.69	0.40	249.19	0.02	203.98	0.00
3/23/2006*	247.59	-0.09	245.65	0.04	249.60	-0.41	203.75	0.23
4/28/2006	247.54	0.05	243.68	1.97	249.50	0.10	203.78	-0.03
5/24/2006	247.38	0.16	243.61	0.07	249.57	-0.07	203.90	-0.12
6/20/2006	247.47	-0.09	243.70	-0.09	249.46	0.11	203.14	0.76
7/28/2006	247.44	0.03	243.37	0.33	249.52	-0.06	203.33	-0.19
8/21/2006	247.34	0.10	243.19	0.18	249.42	0.10	202.88	0.45
9/22/2006	247.36	-0.02	242.70	0.49	249.27	0.15	203.05	-0.17
10/30/2006	247.16	0.20	242.64	0.06	249.48	-0.21	203.92	-0.87
11/29/2006	247.32	-0.16	242.50	0.14	249.22	0.26	203.19	0.73
12/29/2006	247.22	0.10	242.52	-0.02	249.29	-0.07	203.15	0.04
1/30/2007	247.44	-0.22	242.60	-0.08	249.47	-0.18	203.35	-0.20
2/21/2007	247.63	-0.19	242.56	0.04	249.42	0.05	203.32	0.03
3/29/2007	247.11	0.52	242.54	0.02	249.22	0.20	201.55	1.77
4/20/2007	247.17	-0.06	242.29	0.25	249.19	0.03	201.24	0.31
5/25/2007	246.85	0.32	242.86	-0.57	249.11	0.08	201.24	0.00
6/28/2007	246.63	0.22	242.15	0.71	248.80	0.31	200.96	0.28
7/26/2007	245.88	0.75	242.13	0.02	248.78	0.02	200.80	0.16
8/23/2007	245.96	-0.08	242.03	0.10	248.73	0.05	200.22	0.58
9/27/2007	245.79	0.17	241.96	0.07	246.80	1.93	200.29	-0.07
10/25/2007	244.69	1.10	242.08	-0.12	248.73	-1.93	200.14	0.15
11/19/2007	242.20	2.49	242.00	0.08	249.60	-0.87	201.05	-0.91
12/21/2007	235.02	7.18	241.56	0.44	249.62	-0.02	200.08	0.97
1/29/2008	232.46	2.56	241.98	-0.42	249.63	-0.01	200.03	0.05
2/29/2008	226.58	5.88	242.12	-0.14	249.82	-0.19	199.52	0.51
3/27/2008	220.50	6.08	241.90	0.22	249.50	0.32	199.30	0.22
4/29/2008	222.50	-2.00	242.02	-0.12	249.60	-0.10	198.98	0.32
5/30/2008	218.55	3.95	241.90	0.12	249.47	0.13	198.65	0.33
6/26/2008	218.60	-0.05	241.95	-0.05	249.50	-0.03	198.65	0.00
7/29/2008	214.98	3.62	242.20	-0.25	249.68	-0.18	198.68	-0.03
8/26/2008	207.03	7.95	241.90	0.30	249.72	-0.04	198.65	0.03
9/26/2008	202.40	4.63	241.93	-0.03	249.52	0.20	198.60	0.05
10/27/2008	200.68	1.72	241.88	0.05	249.50	0.02	198.59	0.01
11/20/2008	198.05	2.63	242.12	-0.24	249.54	-0.04	198.64	-0.05

Groundwater Treatment System O&M Activities
Claremont Polychemical Superfund Site

December 2011

12/29/2008	178.29	19.76	242.10	0.02	249.15	0.39	198.30	0.34
1/26/2009	167.50	10.79	241.90	0.20	248.87	0.28	198.28	0.02
2/25/2009	151.20	16.30	242.00	-0.10	248.80	0.07	198.80	-0.52
3/13/2009	148.68	2.52	241.87	0.13	248.94	-0.14	198.28	0.52
4/17/2009	148.52	0.16	241.67	0.20	249.00	-0.06	198.10	0.18
5/15/2009	147.60	0.92	241.64	0.03	249.05	-0.05	198.10	0.00
6/8/2009	147.50	0.10	241.60	0.04	248.95	0.10	197.92	0.18
7/27/2009	147.20	0.30	242.40	-0.80	249.00	-0.05	197.90	0.02
8/13/2009	147.20	0.00	241.55	0.85	248.90	0.10	198.00	-0.10
9/16/2009	147.20	0.00	241.50	0.05	248.90	0.00	198.00	0.00
10/28/2009	147.20	0.00	241.44	0.06	248.50	0.40	197.95	0.05
11/19/2009	146.90	0.30	241.50	-0.06	248.53	-0.03	198.00	-0.05
12/10/2009	147.40	-0.50	242.50	-1.00	249.20	-0.67	198.10	-0.10
1/22/2010	147.20	0.20	241.80	0.70	248.50	0.70	198.00	0.10
3/4/2010	147.28	-0.08	241.20	0.60	245.45	3.05	198.00	0.00
3/24/2010	144.95	2.33	241.60	-0.40	248.30	-2.85	198.00	0.00
4/19/2010	147.25	-2.30	241.65	-0.05	247.70	0.60	198.00	0.00
5/26/2010	147.28	-0.03	241.80	-0.15	248.00	-0.30	198.00	0.00
6/24/2010	147.18	0.10	241.72	0.08	248.80	-0.80	198.00	0.00
7/27/2010	144.50	2.68	241.10	0.62	248.90	-0.10	198.00	0.00
8/19/2010	146.95	-2.45	241.70	-0.60	249.05	-0.15	198.00	0.00
9/14/2010	146.00	0.95	241.70	0.00	249.10	-0.05	198.00	0.00
10/14/2010	145.90	0.10	241.65	0.05	249.10	0.00	198.00	0.00
11/8/2010	144.46	1.44	241.60	0.05	249.00	0.10	198.00	0.00
12/17/2010	145.83	-1.37	241.60	0.00	249.10	-0.10	198.00	0.00
2/24/2011	144.50	1.33	241.60	0.00	249.10	0.00	197.98	0.02
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

Change From 6/17/04 to
Present

102.35

14.70

4.90

10.35

Change From 6-04 thru
2-06

1.00

2.81

4.01

1.02

*Injection wells IW-2 and IW-3 redeveloped during week ending 3/17/2006

Change from 3-06 thru
10/07

2.90

3.57

0.87

3.61

Injection wells IW-1 and IW-3 were redeveloped during week ending 11/9/07

Change 11-07 thru 3/08

21.70

0.10

0.10

1.75

Injection wells IW-1 and IW-3 were redeveloped during week ending 4/25/08

Change 4/08 to present

76.55

8.22

1.30

4.33

Associated and Referenced Documents

Document	Location
Daily Data Logs and Worksheets Daily Operating Log Daily activities Summary Report Daily Site Safety Inspection Employee Sign-in Sheet	Monthly file folders
Supporting Worksheets Visitor/Subcontractor Sign-in Sheet Air Monitoring Log Sound Monitoring Worksheet Daily Plant Activity Notes Comprehensive Site Safety Inspections	Monthly file folders
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	Electronic file in Claremont Docs/Claremont Ops Data/ monthly operating data folder and on server
Daily Operations Summary Report	Electronic file in Claremont Docs/Claremont Ops Data/ monthly operating data folder and on server
Monthly Operations Report	Electronic file in Claremont Docs/Claremont Ops Data/ monthly operating data folder and on server
Monthly Maintenance Log	Electronic file in Claremont Docs/Claremont Ops Data/ monthly operating data folder and on server
Activities Schedule	Electronic file in Claremont Docs/Claremont Ops Data/ monthly operating data folder and on server
Groundwater Elevation and Water Quality Database	Electronic file in Claremont Docs folder
Monthly Plant Truck Inspection Worksheet	JSJ files
Stand Alone Documents Claremont O&M Manual Site Safety and Health Plan Standard Operating Procedures and Instruction manual Sampling and Analysis Plan	Binded copies in control room, electronic copies on server
Claremont Site Notebook	Electronic file on server