

December 18, 2014

Mr. Michael Hinton
New York State Department of Environmental Conservation (NYSDEC)
Division of Water, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2399

RE: Ekonol Polyester Resins Site (#V00653-9)
Performance Monitoring Report - August 2014

Dear Mr. Hinton:

Attached is the performance and quarterly monitoring report for the August 2014 monitoring event at the Ekonol Polyester Resins Site (Site). The performance and quarterly monitoring scope of work is defined in the February 2010 NYSDEC approved "Remedial Action Work Plan (RAWP) for *In Situ* Treatment Using Enhanced Bioremediation," and the NYSDEC-approved changes to the reporting scope and schedule. Documentation of well inspection and maintenance, and sub-slab depressurization system operations and maintenance is also provided in the report.

If you have any questions, please feel free to contact me at (716) 407-4990.

Sincerely,



George Hermance
Project Manager

Attachments

cc: M. Teeling, Atlantic Richfield Co.
S. Fiorenza, BP (e-copy)
M. Forcucci, NYSDOH (e-copy)
M. Kolar, Patriot (e-copy)
J. Sabbatis, Saint-Gobain (e-copy)
G. Brown, RT Environmental Services (e-copy)



**PERFORMANCE MONITORING REPORT
AUGUST 2014
IN SITU TREATMENT USING ENHANCED BIOREMEDIATION**

**Ekonol Polyester Resins, NYSDEC # V00653-9
6600 Walmore Road**

Town of Wheatfield, Niagara County, New York

SUBMITTED TO:



**NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION**

**DIVISION OF HAZARDOUS
WASTE REMEDIATION**

SUBMITTED BY:

ATLANTIC RICHFIELD COMPANY

A BP affiliated company

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December 2014

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- ATTACHMENT B: Water Level Measurement, Sampling Matrix and Sampling Records
- ATTACHMENT C: Data Usability Report
- ATTACHMENT D: Site Analytical Data- All Site Wells

1.0 INTRODUCTION

This report summarizes the August 2014 performance and routine monitoring following installation of the bioremediation systems at the Ekonol Polyester Resins Site (Site). The scope of work is defined in the February 2010 NYSDEC-approved “Remedial Action Work Plan (RAWP) for *In Situ* Treatment Using Enhanced Bioremediation,” and the NYSDEC-approved (April 10, 2012 and August 2014) changes to the reporting scope and schedule. Additionally, this report includes discussion on site management activities such as: well inspection and maintenance, and sub-slab depressurization system operations and maintenance.

2.0 BIOREACTOR AND INJECTION/MONITORING WELL INSPECTION

As part of the August 2014 event, the surface conditions above the bioreactor trenches were inspected for settlement, and the protective casings were inspected for integrity. Inspection records are provided in Attachment A. In August 2014, necessary repairs and maintenance to the protective casings and wells associated with the bioreactor were documented. Repairs to the wells will be completed in November 2014.

Well headspace concentrations were monitored for methane and hydrogen sulfide vapor concentrations within source area wells in August 2014. Locations that exhibited elevated levels of methane and/or hydrogen sulfide (within the well casings) were documented and vented plugs were installed.

3.0 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE

During the August 2014 sampling event, the sub-slab depressurization system was inspected in accordance with NYSDEC-approved operations and maintenance plan for the system dated December 5, 2011. Results of the inspection identified that the system is in proper working order. The inspection included a visual inspection of the system’s interior and exterior components, recording of U-Tube manometer measurements, and smoke stick testing. Additionally, the system was shut down temporarily to confirm that the audible alarm functions as designed. The August 2014 inspection checklist for the SSD system is included in Attachment A. In August 2014, repairs and maintenance to the sub-slab depressurization system were not needed.

4.0 PERFORMANCE AND QUARTERLY MONITORING

In addition to the operations, monitoring and maintenance (OM&M) activities discussed above, the second of three groundwater sampling events scheduled for 2014 was completed in August in accordance with the approved work plans and previously

reported procedures. In addition to monitoring the overall groundwater conditions, performance monitoring was completed to assist in evaluating the effectiveness of the groundwater remediation from the bioreactor and in the bedrock groundwater treatment area. The following activities were completed as part of the sampling event:

- a complete round of water levels was collected from the monitoring wells
- wells were purged by low-flow techniques and sampled for field laboratory analytes.

The water levels, sampling matrix, and sampling records are provided in Attachment B. The analytical results for these samples were reviewed for usability with respect to NYSDEC quality assurance and quality control requirements. The data is provided in the data usability report included in Attachment C. The data is considered valid for its intended use.

5.0 BIOREACTOR PERFORMANCE AND MONITORING RESULTS

This section presents the most recent concentrations and data trends for the overburden bioreactor and site overburden wells through the August 2014 sampling event. Analytical data tables for all site overburden wells can be found in Attachment D. The performance of the *in situ* bioremediation in the overburden will be evaluated in detail after the third sampling event in 2014 scheduled for December 2014. Data trends for selected wells are discussed herein.

OVERBURDEN OBSERVATIONS INSIDE THE BIOREACTOR TRENCHES

With the exception of OR-6SM, CVOC concentrations within the bioreactor trenches remain at significantly decreased levels (Figure 1) compared to samples taken within the first three to six months after installation (the installation of the bioreactors was completed in April 2011). TCE, the primary CVOC, was generally depleted from the shallow groundwater within approximately the first six months of completion of the bioreactor installations. August 2014 concentrations of TCE in the bioreactor trenches are below detection limits at all locations, with the exception of OR-6SM (4.6 µg/L). Concentrations of cis-1,2 DCE and VC inside the bioreactor significantly declined during the first year of monitoring, and have remained below original concentrations, with the exception of OR-6SM. Continued monitoring at this location shows variable (elevated and depleted) CVOC concentrations. Concentrations at OR-6SM decreased initially then increased during the first and second quarter of 2013 (10,000 µg/L cis-1,2 DCE and 3,100 µg/L VC in July 2013), which was followed by a decrease in the third and fourth quarters of 2013. April 2014 and August 2014 sampling results indicate an increase in cis-1,2 DCE and VC at OR-6SM (3,900 µg/L cis-1,2 DCE; 870 µg/L VC) (see Attachment D). This cyclical pattern of VOC concentrations has been observed at other locations in the overburden.

In August 2014, bioreactor wells had an overall average decrease in ORP (average of -171 mV in April 2014 to an average of -270 mV in August 2014), overall average decrease in sulfate concentrations (average of 131 mg/L in April 2014 to an average of 52 mg/L in August 2014), and comparable TOC concentrations (average of 41 mg/L in April 2014 to 44 mg/L in August 2014) (see Attachment D). The geochemical conditions in the bioreactor wells indicate that the bioreactors are anaerobic with the exception of OR-3SM, OR-4SM, and OR-5SM. Additionally, there is little indication of CVOC rebound in the short term that would be reflected in changes in geochemical conditions.

TOC concentrations in the bioreactor wells have decreased substantially from initial concentrations in July 2011 (an average of 1,325 mg/L) to August 2014 (an average of 44 mg/L).

Microbial counts of *Dehalococcoides* (DHC), which are known to degrade chlorinated solvent compounds, in August 2014 range from two to five orders of magnitude higher than concentrations measured after bioreactor installation in July 2011. The DHC data results are included in Attachment D.

OVERBURDEN OBSERVATIONS OUTSIDE THE BIOREACTOR TRENCHES

In all overburden performance monitoring wells (PMW) outside the bioreactors, the concentration of chlorinated ethenes (sum of TCE, DCE, and VC) in overburden groundwater decreased from July 2011 (about 178,000 µg/L total concentration; 1,960 µM total molar concentration) three months after bioreactor installation, to August 2014 (about 112,000 µg/L; 1,210 µM) forty months after installation (Attachment D). At individual PMW wells, CVOC concentrations remain variable, with some wells showing increases, some showing decreases and others remaining relatively unchanged (Figure 1).

At several wells between and downgradient of the bioreactors, increased TOC concentrations and/or biodegradation have been observed since July 2011 (see Figure 1). Where TOC was elevated, decreases in DCE were generally observed (TCE was primarily absent throughout). At other locations between and downgradient of the bioreactors including PMW-5S and PMW-11S, the TOC remained low, and TCE, DCE, and VC concentrations have been persistent. Concentrations of TCE, DCE, and VC have increased in PMW-9S (between the bioreactor trenches) from July 2011 to August 2014.

Due to the low hydraulic conductivity of the fine-grained soils (less than 0.5 feet/day), horizontal transport of TOC and associated lateral expansion of the treatment zone was anticipated to be slow. Empirical data have demonstrated this to be the case, however, due to mounding in the former excavation area (observed throughout the investigation and remediation) the calculated transport rates are variable, and therefore variations in the horizontal expansion of the treatment zone could also be variable.

The highest and most persistent CVOC concentrations in the overburden remain:

- at well MW-2S, approximately 8 feet north of the bioreactor trenches and immediately south of the former secondary containment excavation.
- at selected locations between the bioreactor trenches, particularly PMW-5S, PMW-9S, and PMW-11S.
- at selected locations downgradient of the southernmost trench, specifically PMW-3S, PMW-4S and PMW-6S.

Well MW-2S has historically had the highest, most persistent CVOC concentrations. Sampling results from August 2014 show TCE, cis-1,2 DCE, and VC concentrations that are consistent with historical trends, making it likely that the decreases observed in April 2014 were anomalous. Concentrations of TOC, methane, sulfide, and ORP also returned to historical levels in August 2014.

OVERBURDEN OBSERVATIONS - OTHER WELLS

Side-gradient shallow wells and down-gradient shallow wells farther away from the bioreactors (over 150 feet), generally showed a decreasing CVOC trend over the long term. In particular, down-gradient shallow wells MW-11S (reductions in cis-1,2 DCE and VC from July 2011 to August 2014) and MW-12S (reductions in TCE and cis-1,2 DCE from July 2011 to August 2014) show this decreasing CVOC trend (Figure 2A and 2B). The ORP of MW-6S, MW-11S and MW-12S decreased then increased following the bedrock injection events (Figures 2A through 2C). Methane increases at MW-6S, MW-11S and MW-12S also followed the bedrock injection events (Figures 2A through 2C).

At MW-1S, located approximately 150 feet upgradient of the overburden reactors, concentrations of CVOCs have remained relatively stable throughout the monitoring period, with a noticeable decrease in DCE concentrations (157 µg/L in April 2014 to 26 µg/L in August 2014).

6.0 BEDROCK REMEDIATION PERFORMANCE AND QUARTERLY MONITORING RESULTS

This section presents observations of the bedrock remediation system through the August 2014 sampling event. Laboratory analytical results for all site bedrock wells can be found in Attachment D.

BEDROCK BIOREMEDIATION PERFORMANCE SUMMARY

Figure 3 provides time-series plots (from July 2011 to present) of key CVOCs, total ethene and/or ethane, and TOC concentrations for the bedrock injection and monitoring wells.

The data indicate a continuation of enhanced CVOC biodegradation attributed to the November 2012 substrate injection (see Figure 3). The enhanced degradation pattern, decreasing TCE accompanied by an increase in DCE, VC, and increasing ethane/ethene (E+E), observed in December 2012 has been sustained or progressed further. Wells that showed enhanced degradation include INJ-7D, INJ-9D, INJ-10D, INJ-12D, INJ-13D, PMW-9D, PMW-10D, PMW-12D, and PMW-13D. Many of these wells are located immediately downgradient of the November 2012 injection locations.

Figure 4 illustrates wells with increases in E+E concentrations (1 - 3 orders of magnitude) from September 2012 (prior to the November 2012 injections) to August 2014. These wells are within and immediately downgradient of the injection area (INJ-07D, INJ-08D, INJ-09D, INJ-12D, INJ-13D, PMW-9D, PMW-10D, PMW-12D, PMW-13D, PMW-14D, PMW-15D, PMW-16D, and RMW-2D).

DHC concentrations (sampled from wells INJ-07D, INJ-09D, INJ-10D, PMW-11D, PMW-15D, PMW-17D, and RMW-2D) have also increased in the bedrock treatment area (see Figure 5).

The highest concentrations of TCE for this event were at RMW-2D (310,000 µg/L in August 2014) and INJ-7D (160,000 µg/L in August 2014). TCE concentrations at INJ-7D decreased from December 2013 and at RMW-2D from December 2012 to August 2014 (Figure 3). These decreases were accompanied by increases in DCE. DCE and VC concentrations increased at INJ-7D increased between December 2012 and August 2014 after the November 2012 injection event (Attachment D).

Within the source area, the average total molar chlorinated CVOC concentrations have generally increased during remediation (see Table 1, Group 1). These increases are mostly controlled by increases in the farthest upgradient wells INJ-07D and INJ-11D, which is likely attributed to: (1) increased solubility, (2) small changes in distribution of mass, and (3) potential presence of DNAPL. At wells about 50 feet downgradient (Table 1, Group 2), the average total molar concentrations have decreased from initial concentrations for the first time since the initial remedy application, while slightly further downgradient, wells show increasing average total molar concentrations for the first time since remediation was initiated (Table 1, Group 3). The farthest downgradient wells (Table 1, Group 4) continue to show decreased average total molar chlorinated ethene and ethane concentrations since the first substrate applications in July 2011.

Over the long term, ethene and ethane concentrations and DHC populations are providing an important demonstration of the rate of bioremediation progress at the site.

At multiple locations, E+E concentrations have increased by orders of magnitude over the last 3 years, indicating that although the CVOC concentrations are fluctuating, the degradation to nontoxic end products is continuing at an increasing rate in the source area.

Groundwater elevation data (see Attachment B) indicate the groundwater flow conditions have remained similar since the initial June 2011 substrate injections. Groundwater flow is generally southerly across the site with no apparent changes from the bioremediation.

PERFORMANCE ENHANCEMENT TESTING

Previous sampling results indicated the bedrock remediation was limited by geochemical conditions (low pH and elevated hydrogen sulfide). Wells with the highest degradation rates had a pH above approximately 6.5 SU and/or hydrogen sulfide approximately less than 30 mg/L. As previously discussed, tests were conducted during the November 2012 substrate injections to mitigate potential limitations to the performance of the bedrock remediation system. The tests included additional vegetable oil substrate and calcium carbonate buffer (instead of sodium bicarbonate) throughout the 2012 injection area to raise the pH, and addition of iron at INJ-7D to remove hydrogen sulfide. The following observations are relevant to these 2012 injections:

- **pH:** The additional calcium carbonate appeared to lack sufficient buffering capacity to prevent the initial pH drop (5.5 – 6.0; Figure 6). The pH of most wells in August 2014 has now recovered and was above 6.5 SU, with the exception of PMW-10D (6.37 SU), PMW-12D (6.35 SU), PMW-13D (6.38 SU), and RMW-2D (5.95 SU).
- **TOC:** TOC concentrations above 100 mg/L, which could be indicative of both added substrate and degradation intermediates, have persisted since the November 2012 injection except at PMW-11D and INJ-10D (Figure 6).
- **Iron and Sulfide Concentration:** Injection of iron (soluble and mineral sources) in INJ-7D during the November 2012 substrate injection event resulted in an increase in iron and a decrease in sulfide at INJ-7D and the downgradient wells PMW-9D, PMW-12D, and RMW-2D (Figures 7A and 7B). August 2014 data suggest iron concentrations at these locations are beginning to deplete and sulfide concentrations are increasing slightly. There is also evidence that the iron migrated downgradient based on increased iron and decreased sulfide in INJ-01, INJ-02, and INJ-04 (see Attachment D). The November 2012 iron injections in INJ-7D may have influenced iron and sulfide concentrations in side-gradient well PMW-1D. August 2014 sampling results show that concentrations of iron have generally increased and concentrations of sulfide have generally decreased from pre-November 2012 levels at PMW-1D (see Attachment D).

- **Ethene and Ethane Concentration:** Ethene plus ethane increased in INJ-7D as well as locations downgradient of this well (INJ-9D, INJ-13D, PMW-9D, PMW-10D, PMW-12D, PMW-14D, PMW-15D, PMW-16D, and RMW-2D) (see Figure 4 and Attachment D). The increased ethene and ethane concentration indicates biodegradation of VC, despite the increased VC concentration in some of these wells. Based on the continued results from the iron injections at INJ-7D, it appears that sulfide can be effectively controlled with iron, and that iron improves the rate of CVOC biodegradation.

The iron injection impacted the geochemistry and has had a positive effect on biodegradation. Future bioremediation injections and activities will focus on providing conditions for optimal bioremediation (see below).

7.0 GENERAL SITE CONCLUSIONS AND ANTICIPATED FUTURE ACTIVITIES

Bioreactor: The August 2014 data indicate CVOCs are mostly depleted in the bioreactor. The addition of vegetable oil substrate to the bioreactor trenches and/or other selected locations with elevated and persistent CVOC concentrations is being planned. Methane and hydrogen sulfide will continue to be monitored.

Bedrock Bioremediation Area: The data to date continue to suggest that biodegradation is improving, but can be further optimized. The iron injection test demonstrated that sulfide can be effectively controlled, thus improving the rate of CVOC biodegradation. Increasing downgradient concentrations of DHC and E+E, combined with decreasing concentrations of CVOCs downgradient, indicate an overall positive performance of the bedrock remediation system. Methane and hydrogen sulfide will continue to be monitored.

Amendment Evaluation: Additional laboratory bench testing has been completed and will be used to evaluate the use of amendments including iron, pH buffer, and nutrients, while maintaining sufficient TOC in order to further enhance CVOC biodegradation in the bedrock system. The results of this optimization study will be presented in a future report.

FIGURES

FIGURE 1: OVERBURDEN TIME SERIES PLOTS

FIGURE 2: (A, B, AND C): TIME SERIES PLOTS – MW-11S, MW-12S,
MW-6S

FIGURE 3: BEDROCK TIME SERIES PLOTS

FIGURE 4: TIME SERIES PLOTS – ETHENE AND ETHANE

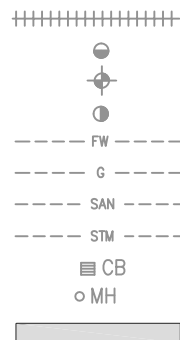
FIGURE 5: TIME SERIES PLOTS – *Dehalococcoides*

FIGURE 6: TIME SERIES PLOTS – PH AND TOTAL ORGANIC CARBON
(TOC)

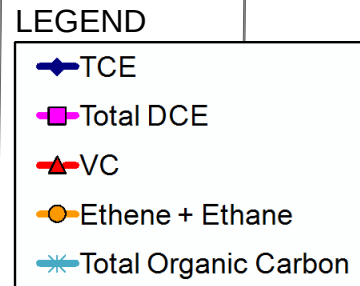
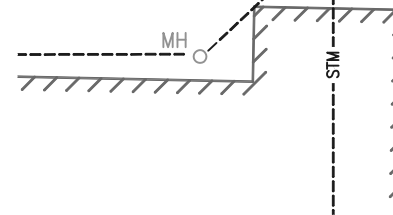
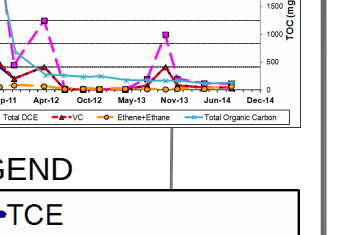
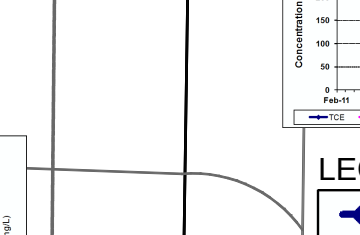
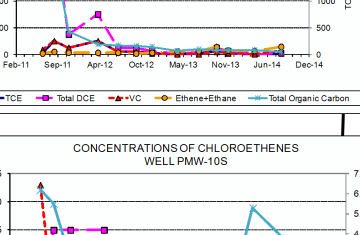
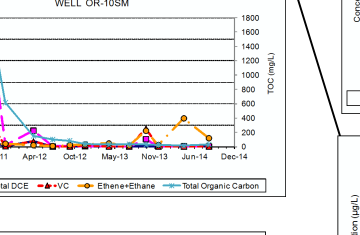
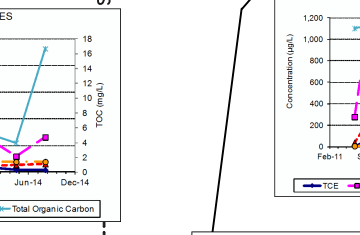
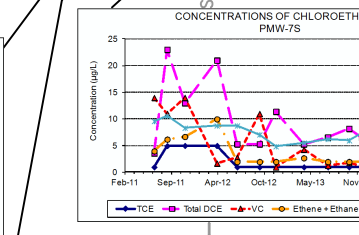
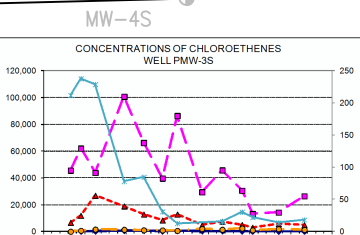
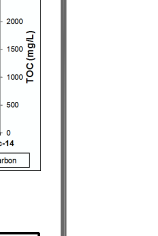
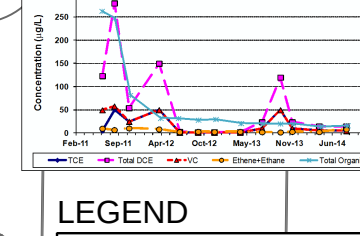
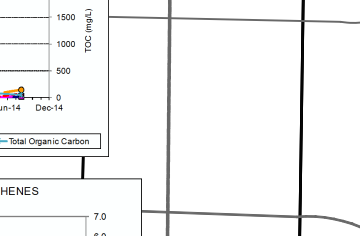
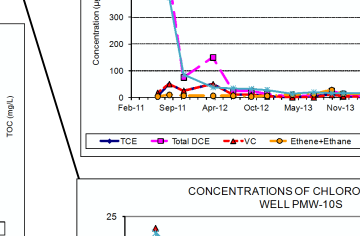
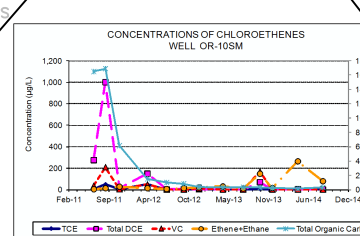
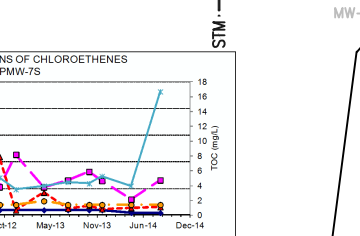
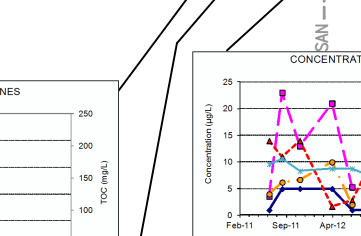
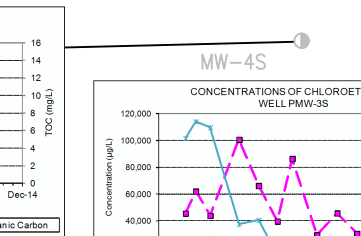
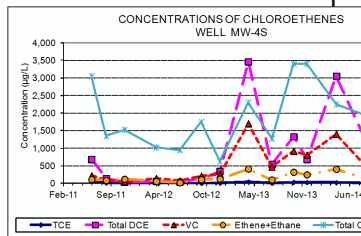
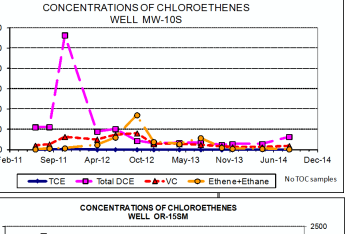
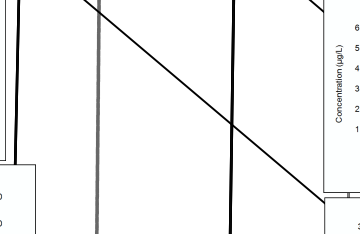
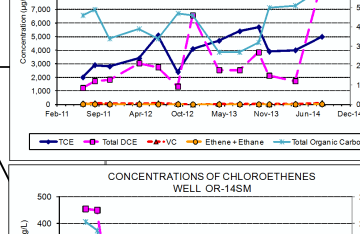
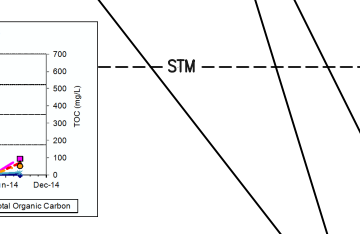
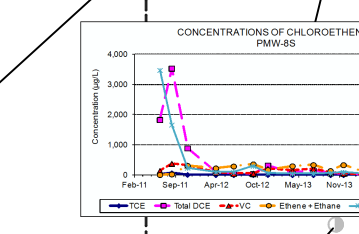
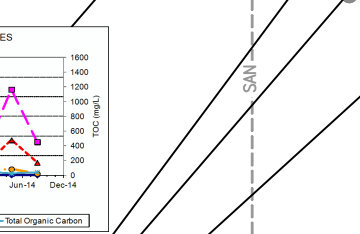
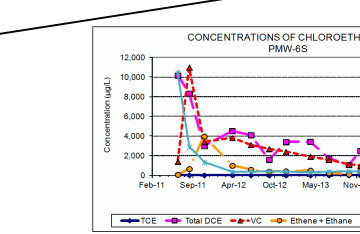
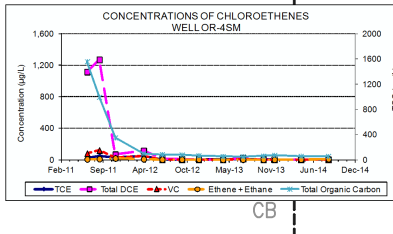
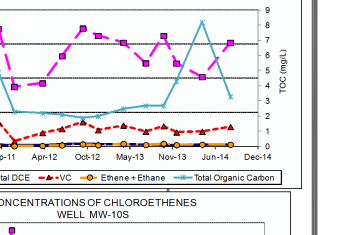
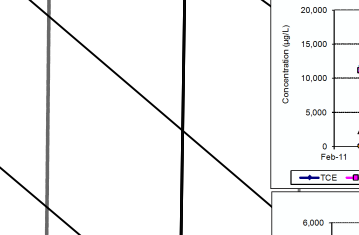
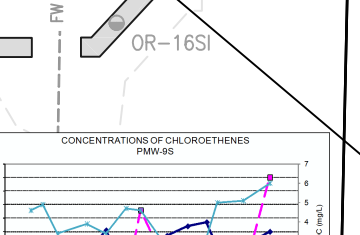
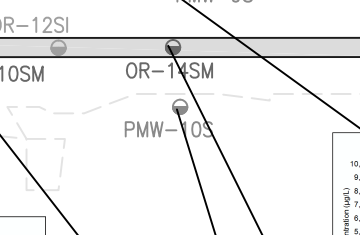
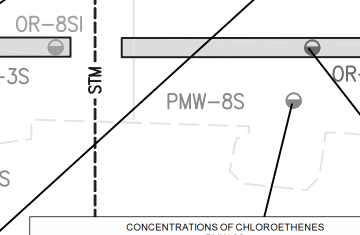
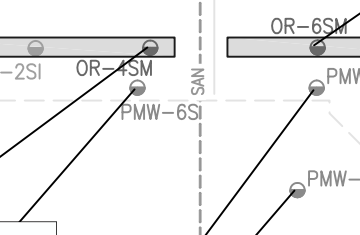
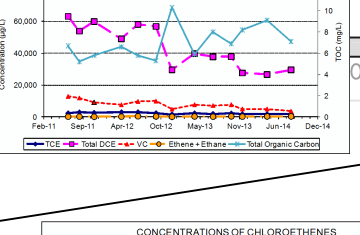
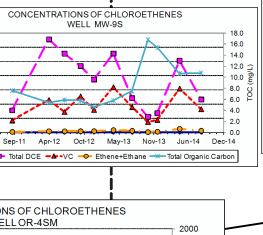
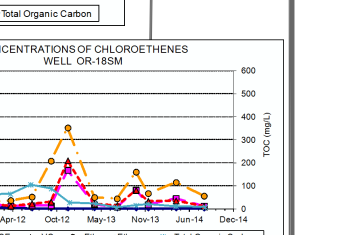
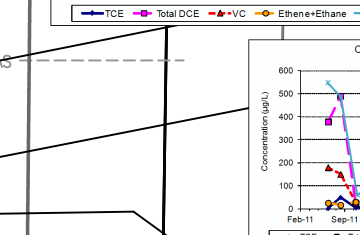
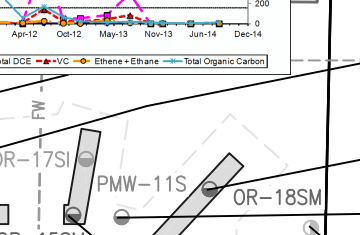
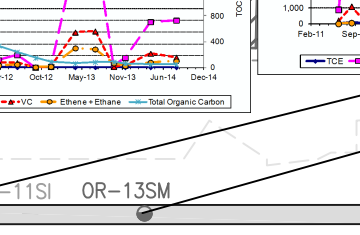
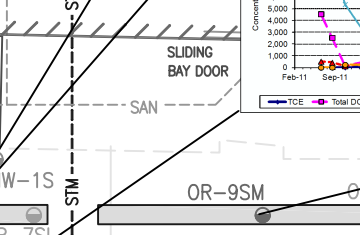
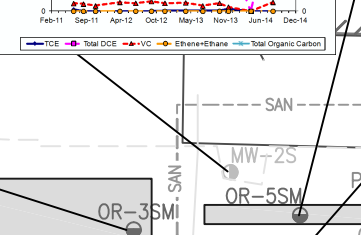
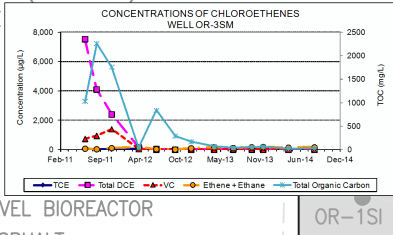
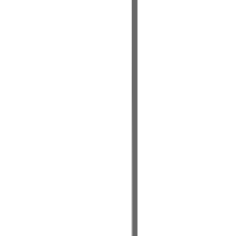
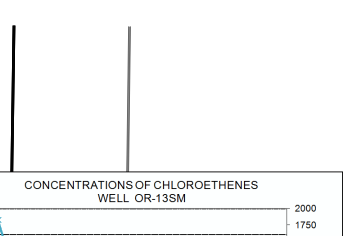
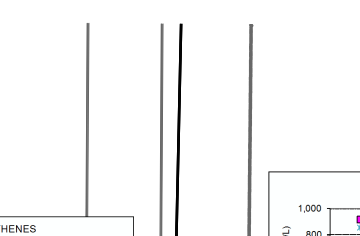
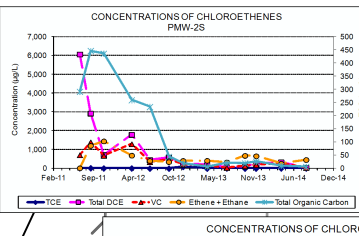
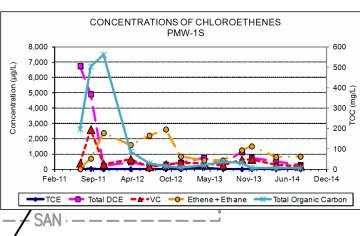
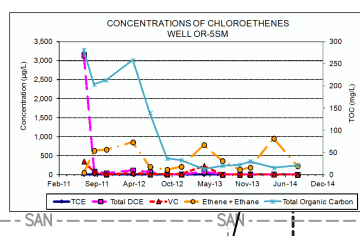
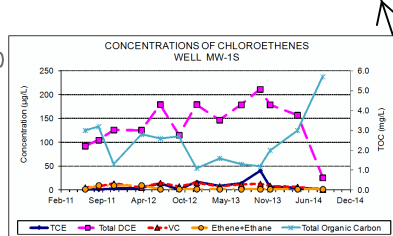
FIGURE 7: (A AND B): TIME SERIES PLOTS – IRON, SULFIDES,
SULFATE, ETHENE, AND ETHANE



LEGEND:



RAILROAD TRACKS
NEW BORING WELL (POST 2010)
REPLACEMENT BEDROCK INVESTIGATION WELL
OLD BORING WELL (PRE 2010)
FIRE WATER LINE
GAS LINE
SANITARY LINE
STORM LINE
CATCH BASIN
MANHOLE
MULCH AND GRAVEL BIOREACTOR
EDGE OF NEW ASPHALT



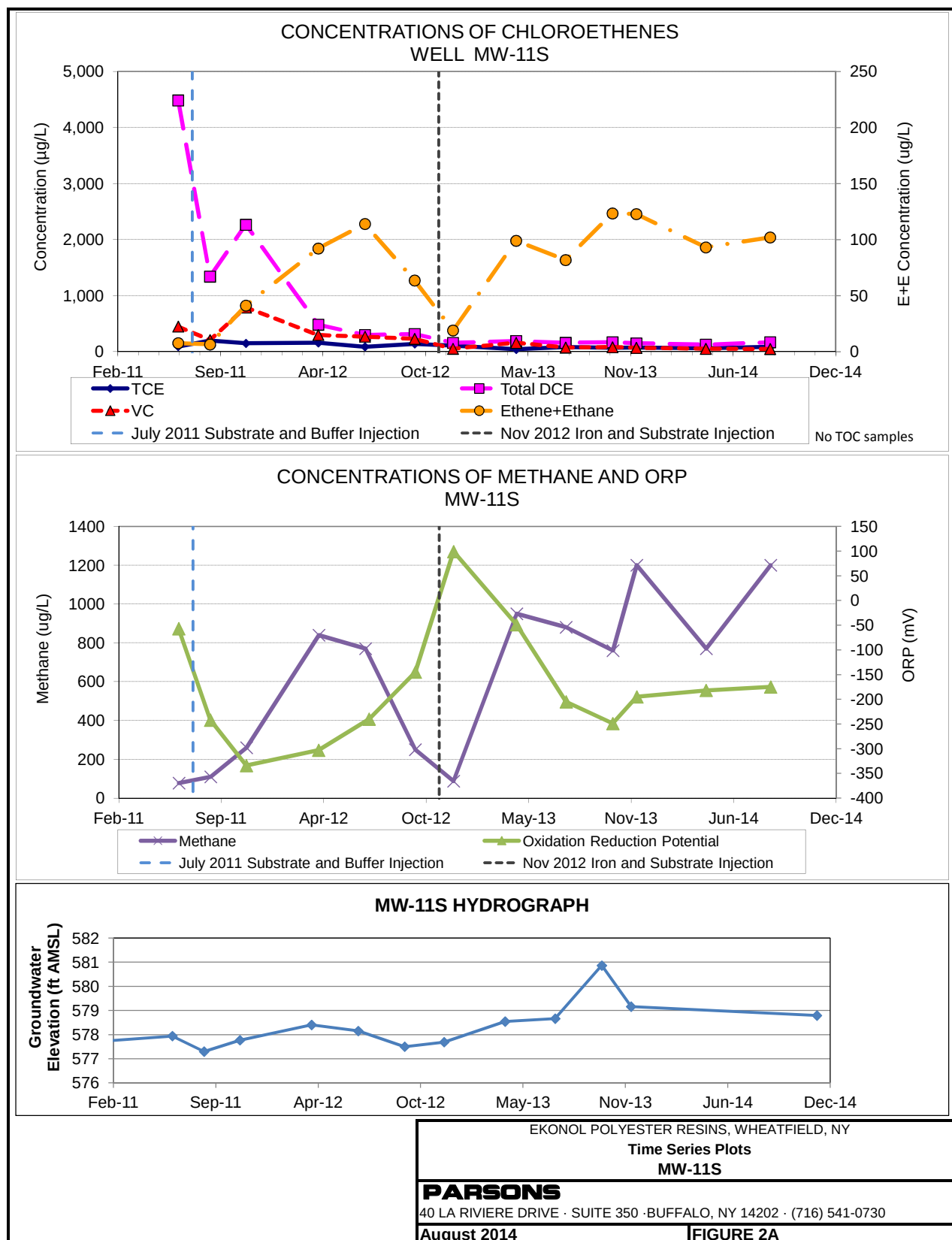
NOTES:
Utility locations are approximate, other utilities may exist.
Overburden Bioreactor Trenches were installed in April 2011.
Pilot Test Bedrock Injections performed in June 2008,
Bedrock Remediation Injections in July 2011, Bedrock
Injections in Nov. 2012.

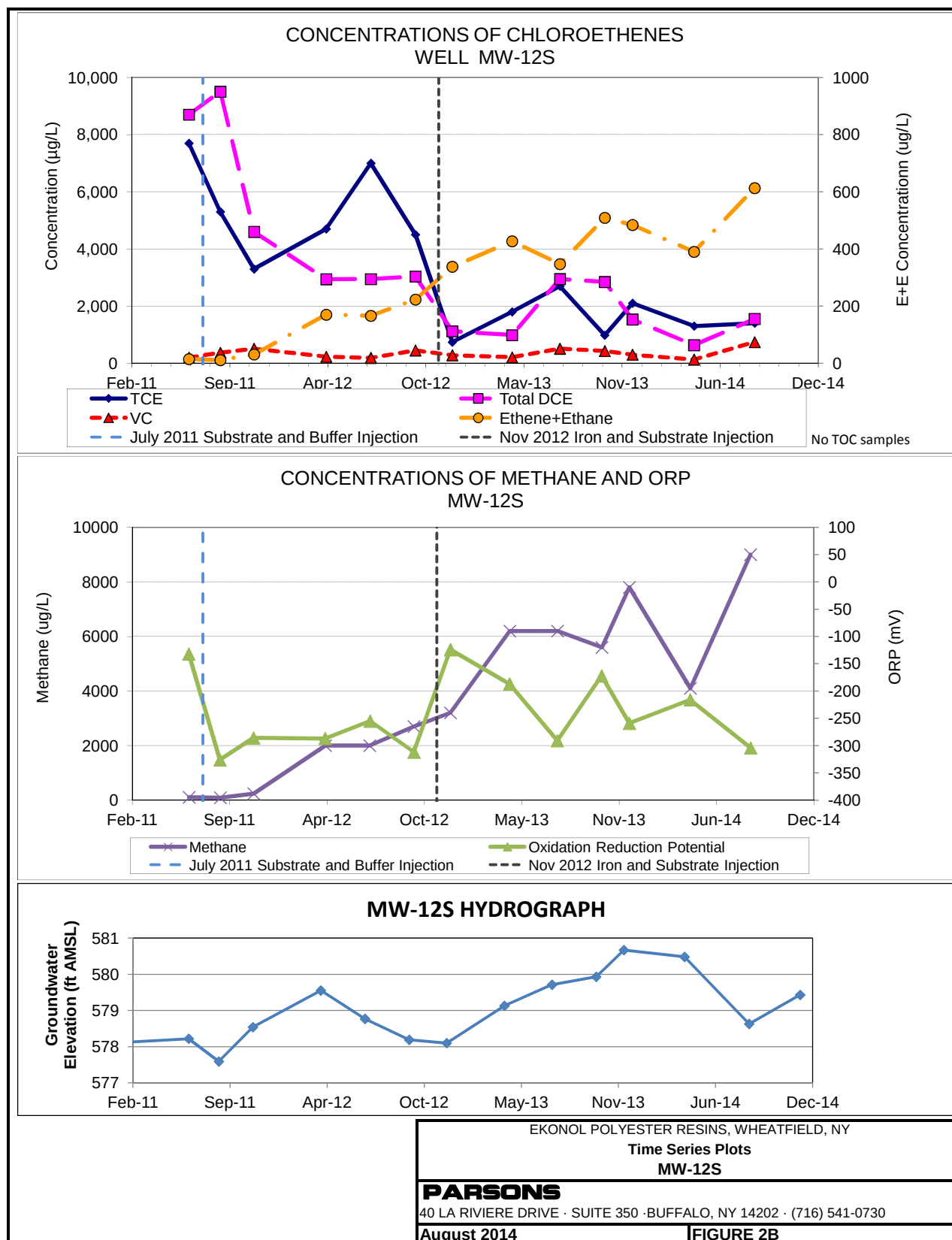
ATLANTIC RICHFIELD COMPANY

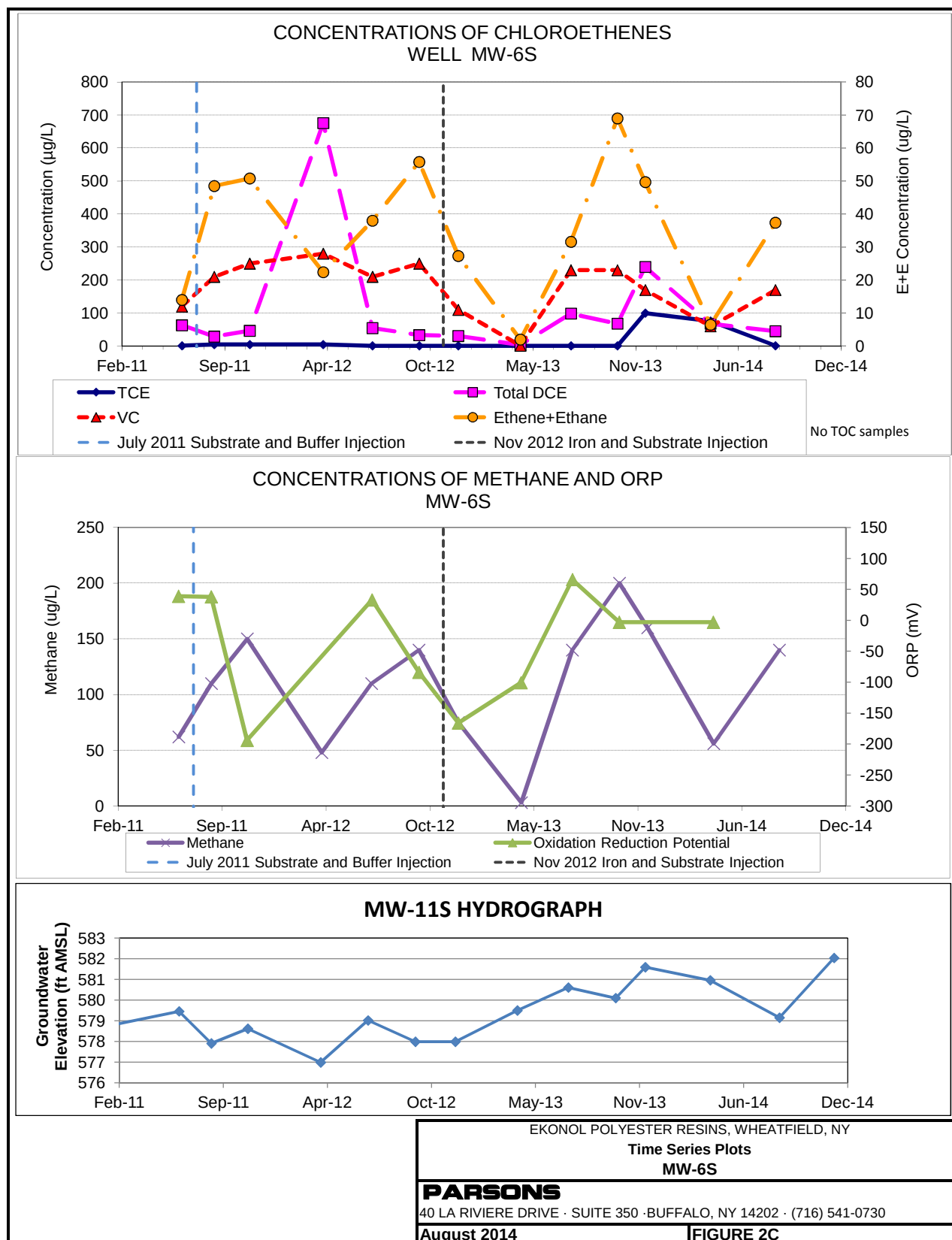
EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

FIGURE 1
OVERBURDEN TIME
SERIES PLOTS

PARSONS
40 LA RIVIERE DR, SUITE 350, BUFFALO, NY 14202 PHONE: 716-541-0730

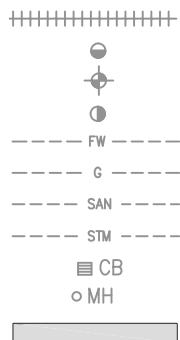




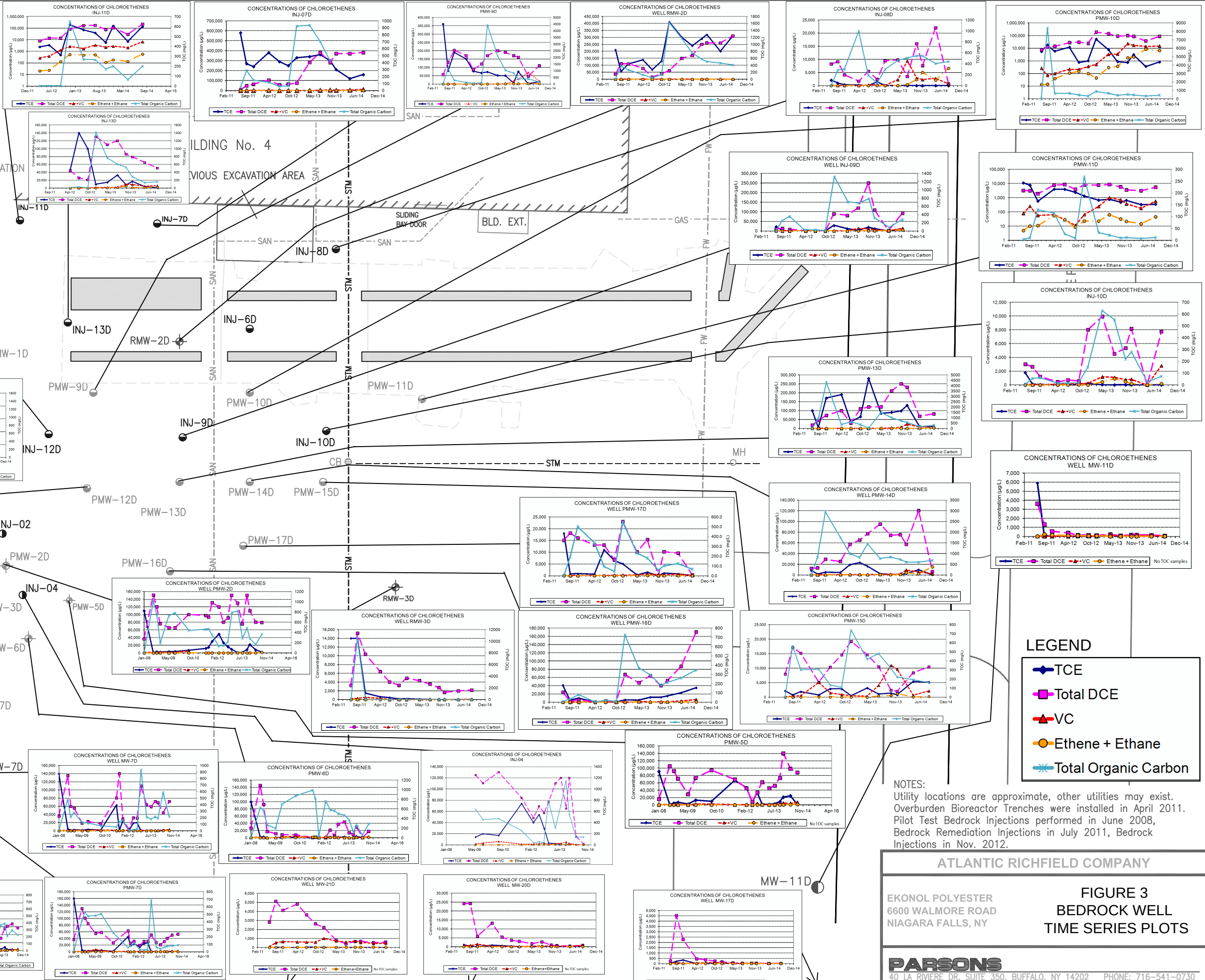




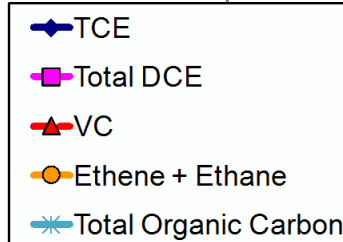
LEGEND:



RAILROAD TRACKS
NEW BORING WELL (POST 2010)
REPLACEMENT BEDROCK INVESTIGATION
OLD BORING WELL (PRE 2010)
FIRE WATER LINE
GAS LINE
SANITARY LINE
STORM LINE
CATCH BASIN
MANHOLE
MULCH AND GRAVEL BIOREACTOR
EDGE OF NEW ASPHALT



LEGEND



NOTES:
Utility locations are approximate, other utilities may exist.
Overburden Bioreactor Trenches were installed in April 2011.
Pilot Test Bedrock Injections performed in June 2008,
Bedrock Remediation Injections in July 2011, Bedrock
Injections in Nov. 2012.

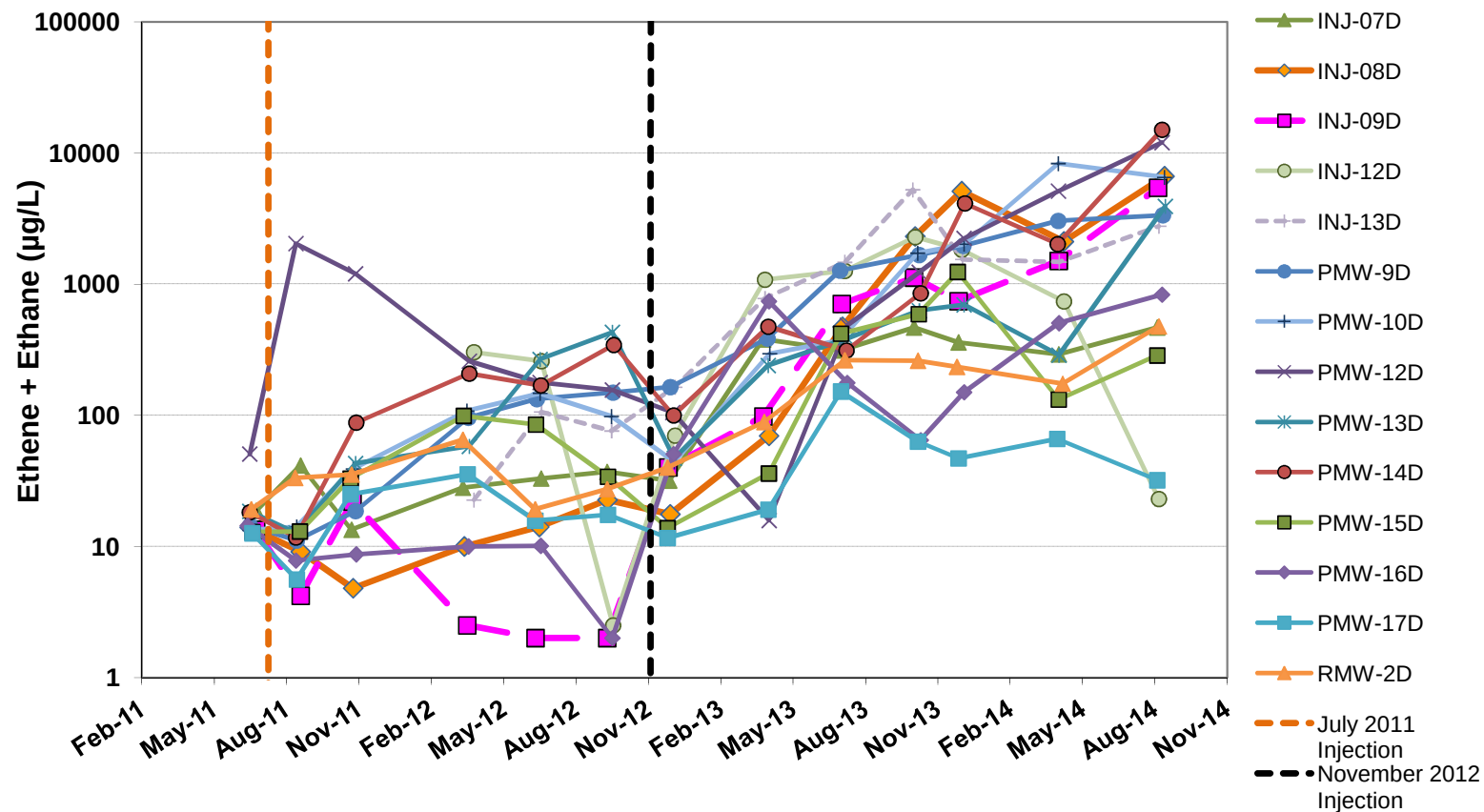
ATLANTIC RICHFIELD COMPANY

EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

FIGURE 3
BEDROCK WELL
TIME SERIES PLOTS

PARSONS

40 LA RIVIERE DR, SUITE 350, BUFFALO, NY 14202 PHONE: 716-541-0730



EKONOL POLYESTER RESINS, WHEATFIELD, NY

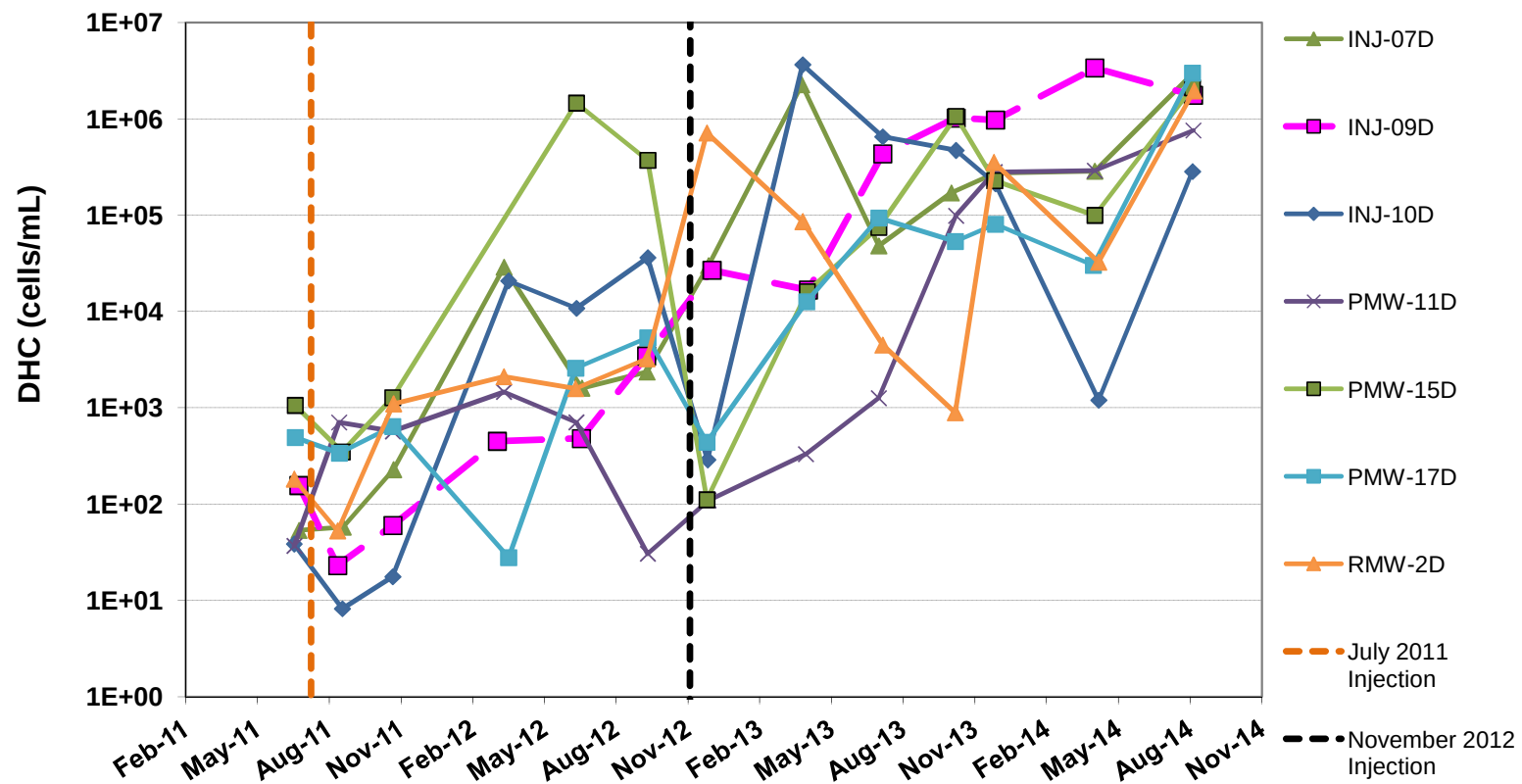
Time Series Plots
Ethene and Ethane

PARSONS

40 LA RIVIERE DRIVE · SUITE 350 · BUFFALO, NY 14202 · (716) 541-0730

August 2014

FIGURE 4



EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

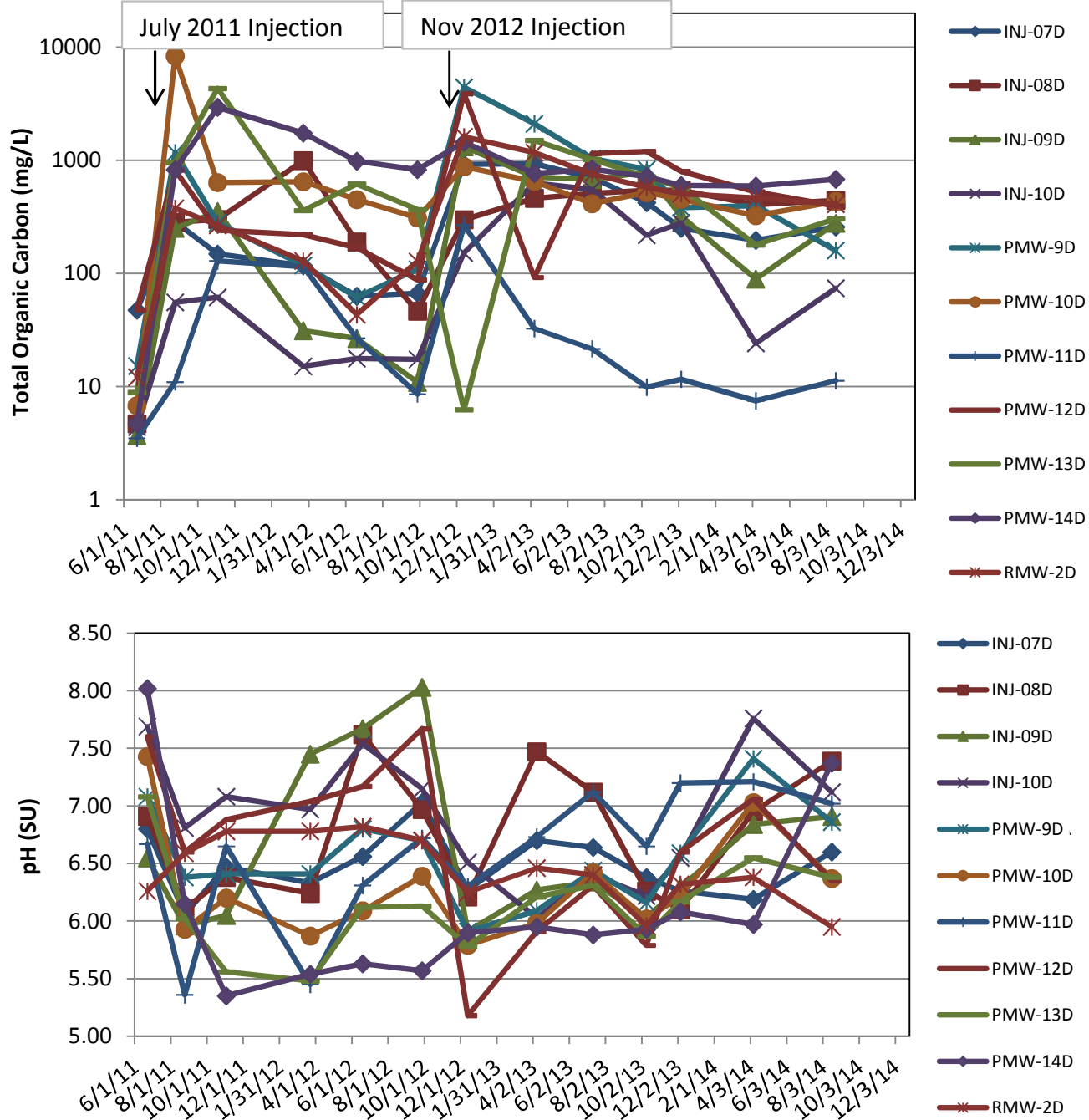
Dehalococcoides (DHC) Concentration

PARSONS

40 LA RIVIERE DRIVE · SUITE 350 · BUFFALO, NY 14202 · (716) 541-0730

August 2014

FIGURE 5



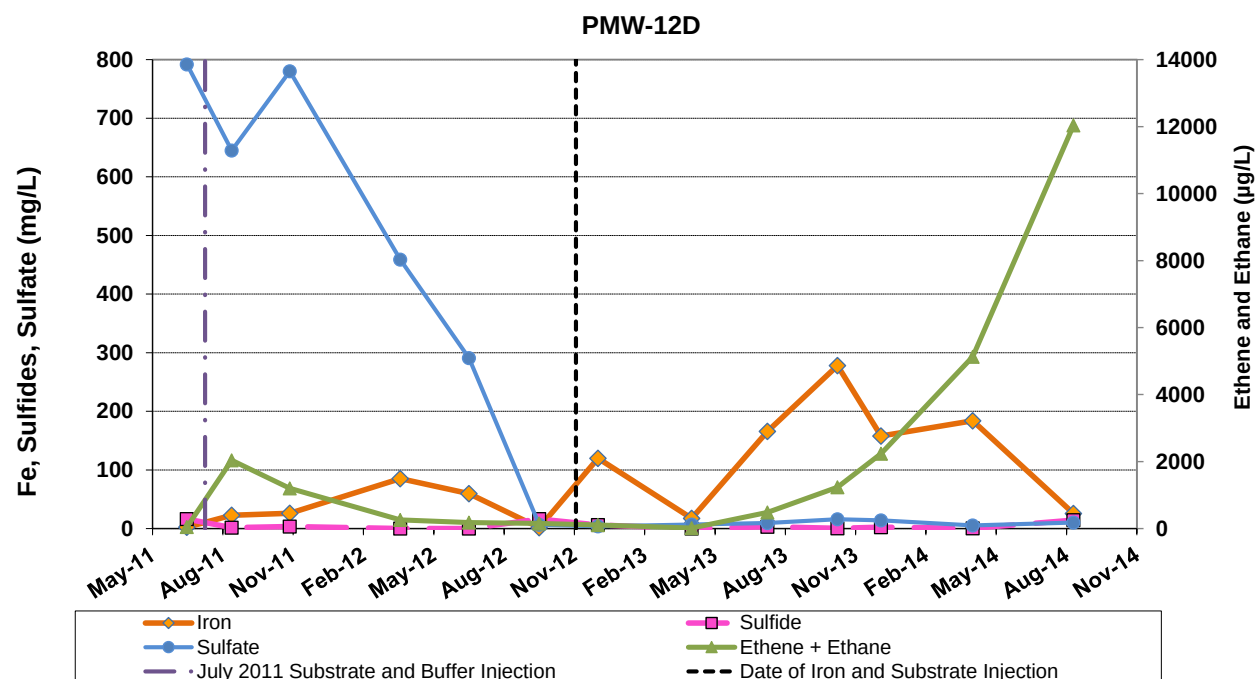
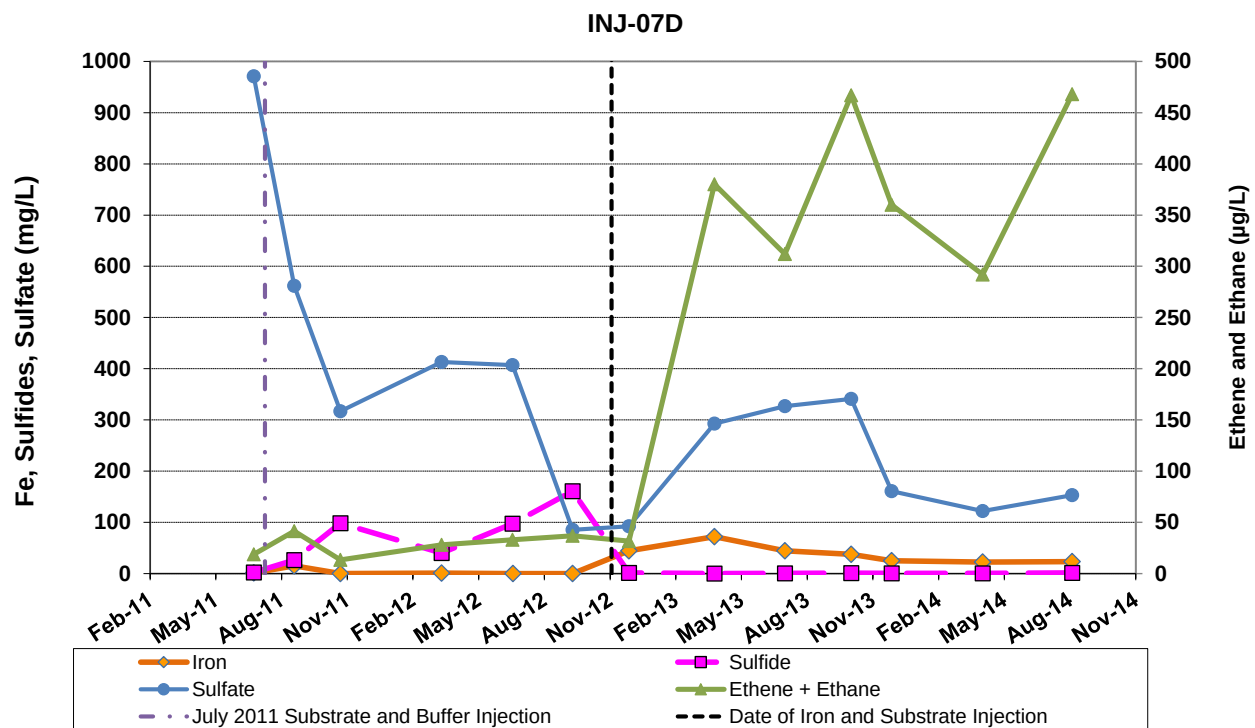
EKONOL POLYESTER, NY
TIME-SERIES PLOTS
pH and Total Organic Carbon

PARSONS

40 LA RIVEIRE DRIVE · SUITE 350 · BUFFALO, NY 14202 · (716) 541-0730

August 2014

FIGURE 6



EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

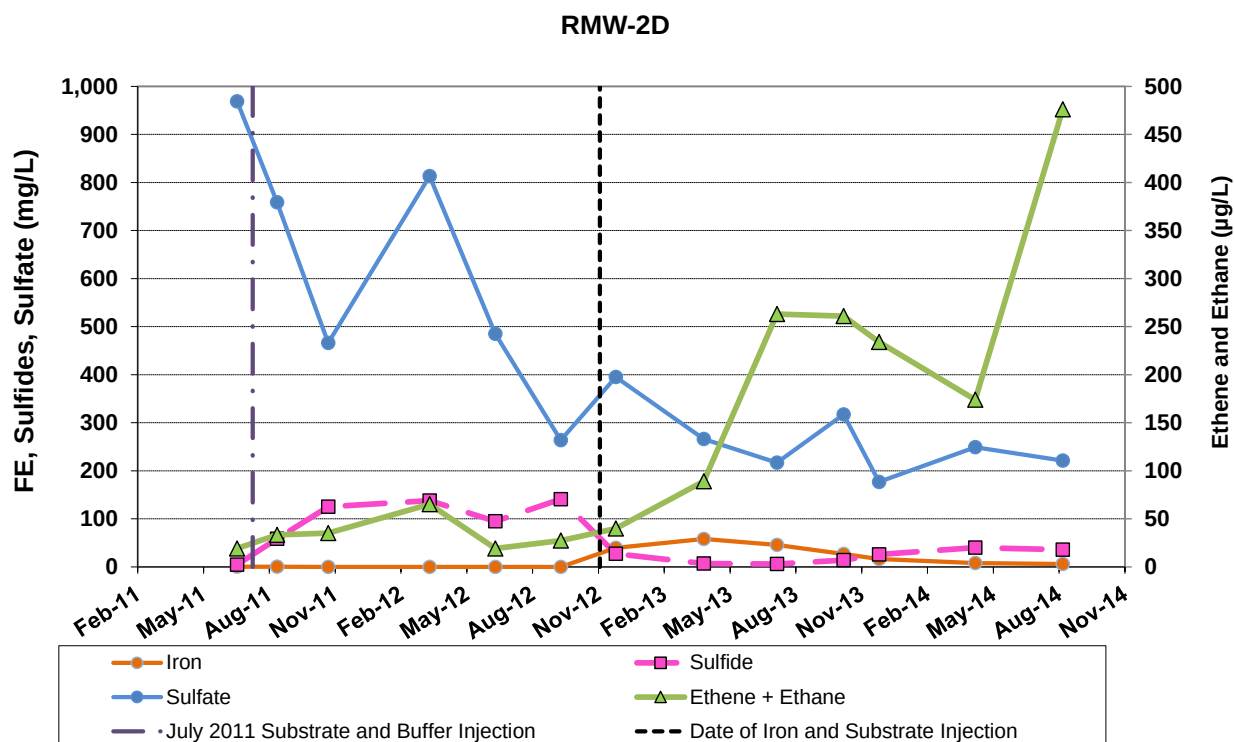
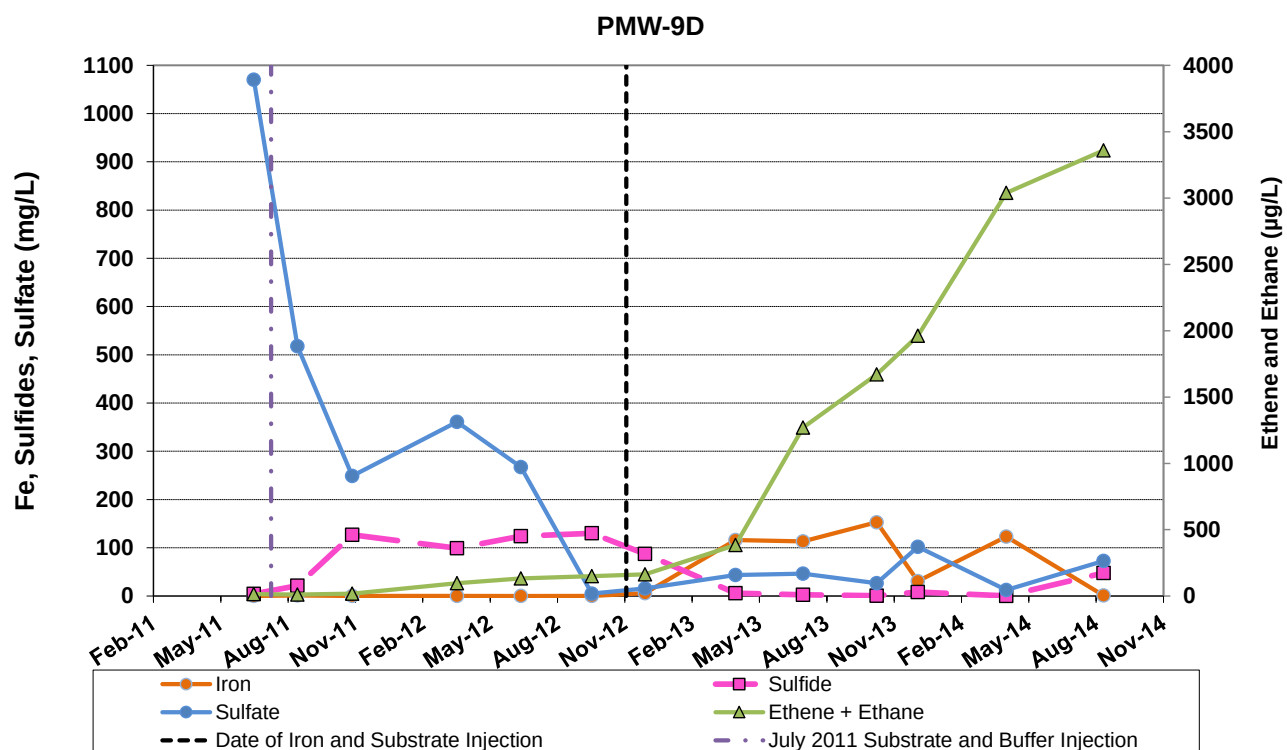
Iron, Sulfides, Sulfate, Ethene and Ethane

PARSONS

40 LA RIVIERE DRIVE · SUITE 350 · BUFFALO, NY 14202 · (716) 541-0730

August 2014

FIGURE 7A



EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

Iron, Sulfides, Sulfate, Ethene and Ethane

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August 2014

FIGURE 7B

TABLE

**TABLE 1: AVERAGE DIFFERENCE IN CVOC CONCENTRATION FROM
BASELINE SAMPLING EVENT (JULY 2011)**

TABLE 1
AVERAGE DIFFERENCE IN CHLORINATED ETHENE AND CHLORINATED ETHANE
CONCENTRATIONS
FROM BASELINE SAMPLING EVENT (JULY 2011)

Sampling Date	Group 1*	Group 2*	Group 3*	Group 4*
July 2011	0.0	0.0	0.0	0.0
August 2011	-390.4	106.3	-232.1	9.7
November 2011	-383.0	731.1	-290.8	-89.6
March 2012	-126.2	762.1	-431.8	-25.2
June 2012	-547.9	310.8	-411.4	-49.3
September 2012	-480.4	363.6	-483.0	-81.6
December 2012	601.1	411.6	-176.2	-93.6
April 2013	824.6	118.5	-287.7	-123.9
July 2013	988.9	574.8	-107.8	-119.0
October 2013	1275.1	573.8	-326.4	-135.8
December 2013	1044.2	685.9	-218.0	-140.4
April 2014	463.5	313.0	-120.1	-145.0
August 2014	1054.4	-19.3	170.8	-134.6

*Average total molar chlorinated ethene and ethane concentration in μM per liter (μM).

Notes:

Group 1 includes Source Area Wells:	<i>INJ-7D</i>	<i>INJ-10D</i>
	<i>INJ-8D</i>	<i>PMW-10D</i>
	<i>INJ-9D</i>	<i>RMW-2D</i>
Group 2 includes Downgradient wells:	<i>PMW-9D</i>	<i>PMW-13D</i>
	<i>PMW-11D</i>	<i>PMW-14D</i>
	<i>PMW-12D</i>	<i>PMW-15D</i>
Group 3 includes Further Downgradient wells:	<i>PMW-16D</i>	
	<i>PMW-17D</i>	
	<i>RMW-3D</i>	
Group 4 includes Far Downgradient wells:	<i>MW-20D</i>	
	<i>MW-21D</i>	

Negative number means a decrease in total CVOC concentrations relative to July 2011.

Positive number means an increase in total CVOC concentrations relative to July 2011.

ATTACHMENT A
INSPECTION RECORDS

EKONOL SITE PAVEMENT INSPECTION FORM
WHEATFIELD, NEW YORK

Date of Inspection: 7/10/14

Time: 12:00

Inspector(s) Name/Title: DAN CHANDERKAND - GEOLOGIST

Inspection of	Condition Present?		Action Required?		Comments/Location	Correction Date
	Yes	No	Yes	No		
1. Site Pavement						
A. Surface cracks		X		X		
B. Pits/divots		X		X		
C. Sinking		X		X		
2. Well curb boxes						
A. Cracks		X		X		
B. Loose		X		X		
C. Well caps missing		X		X		
D. Settlement		X		X		

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Date: 8/20/14

Checklist Completed By: DPC

Project Number: 448816-02000

Property Location: ST. GORDIAN OFFICE

System Installation Date: _____

The purpose of this form is to document the operation and maintenance of the sub-slab depressurization system to provide assurance that the system is functioning as designed or identify and execute any actions required to achieve the mitigation of subsurface vapor intrusion of volatile organic compounds to indoor air

1. MITIGATION SYSTEM INSPECTION

Occupant Interview

Any concerns identified by the building occupants?

YES ☒ NO

Comments / Action Items

Occupant's Initials: TR

External Piping

Vent pipes securely fastened to building

YES ☒ NO

Are there any visible openings or breaks in the pipe system

YES ☒ NO

Is the rain cap present and intact at discharge point

YES ☒ NO N/A

Inspection of the exhaust point verified that no air intakes have been located nearby

YES ☒ NO

The sealing/caulking around wall penetrations is intact

YES ☒ NO

Comments / Action Items

Mitigation Fan

Fan is mounted securely to building (no excessive vibrations during operation)

YES ☒ NO

Fan cover is installed

YES ☒ NO

No visible damage to fan or cover

YES ☒ NO

Comments / Action Items

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Internal Piping

Vertical and horizontal pipe runs are secured, including at all penetration points	<u>YES</u>	NO	
The sealing/caulking is intact around the extraction point or points through the basement floor, crawlspace floor, and/or crawlspace/basement wall interface.	YES	NO	
Vibration dampener installed and Intact (pertains to fan mount)	YES	NO	N/A
Mitigation system operation placard present and visible/legible	YES	NO	
Contains description of major components, valid contact number and instructions for occupant inquiries and/or system failure	YES	NO	
Mitigation system maintenance tag present and filled out	YES	NO	
Date of last inspection shown on tag: _____			
U-tube manometer present and intact at each extraction point	<u>YES</u>	NO	
<i>Comments / Action Items</i>			

Electrical

Electrical connections secured	<u>YES</u>	NO	
Junction boxes are closed	<u>YES</u>	NO	
Conduit is supported	<u>YES</u>	NO	
Circuit breakers controlling the mitigation fan and alarm circuits operate and are labeled "Mitigation System"	<u>YES</u>	NO	
Power switch tagged with intact tamper proof seal	<u>YES</u>	NO	
Audible alarm present	<u>YES</u>	NO	
Audible alarm switch in "on" position (light on alarm is green)	YES	NO	
<i>Comments / Action Items</i>			

2. OPERATIONAL CHECKS

Fan is operating			
Noise and Vibration within normal range	YES	NO	
Alarm sounds when fan is turned off	YES	NO	

U-Tube manometer indicating negative sub slab pressure	YES	NO	
U-Tube Manometer Reading: Location: <u>OFFICE</u> Vacuum <u>0-8</u> in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			
U-Tube Manometer Reading: Location: _____ Vacuum _____ in H ₂ O			

Smoke test performed on internal penetrations and pipe joints			
Smoke test indicated no leaks	<u>YES</u>	NO	N/A
Smoke test confirms air flow into sump	YES	NO	N/A
Back draft test confirms proper air flow at combustion appliances	YES	NO	N/A
Smoke test indicated no leaks	<u>YES</u>	NO	N/A

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

3. MAINTENANCE

Fan last replaced on (date): _____

Fan due to be replaced; _____

Additional Maintenance Action Items Performed

4. ADDITIONAL ACTION ITEMS/ COMMENTS/COMPLETION DATES

5. CERTIFICATION

I certify that the information on this form is true, accurate and complete (all blanks filled in) to the best of my knowledge and ability, and that I have the appropriate training and experience to perform this monitoring/inspection:

Name: DAN CHAMBERLAND Affiliation: PARSONS
Signature: [Signature] Date (dd/mm/yy): 20/08/14, 10:00 am/pm

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Date: 7/10/14
Checklist Completed By: DPC
Project Number: 447365.0000
Property Location: ST GOBLEN
System Installation Date: _____

The purpose of this form is to document the operation and maintenance of the sub-slab depressurization system to provide assurance that the system is functioning as designed or identify and execute any actions required to achieve the mitigation of subsurface vapor intrusion of volatile organic compounds to indoor air

1. MITIGATION SYSTEM INSPECTION *

Occupant Interview

Any concerns identified by the building occupants?

YES

☒ NO

Comments / Action Items

External Piping

Occupant's Initials: DW

Vent pipes securely fastened to building

☒ YES

NO

Are there any visible openings or breaks in the pipe system

☒ YES

NO

Is the rain cap present and intact at discharge point

☒ YES

NO

N/A

Inspection of the exhaust point verified that no air intakes have been located nearby

☒ YES

NO

The sealing/caulking around wall penetrations is intact

☒ YES

NO

Comments / Action Items

Mitigation Fan

Fan is mounted securely to building (no excessive vibrations during operation)

☒ YES

NO

Fan cover is installed

☒ YES

NO

No visible damage to fan or cover

☒ YES

NO

Comments / Action Items

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Internal Piping

Vertical and horizontal pipe runs are secured, including at all penetration points	☒ YES	☐ NO	
The sealing/caulking is intact around the extraction point or points through the basement floor, crawlspace floor, and/or crawlspace/basement wall interface.	☒ YES	☐ NO	
Vibration dampener installed and intact (pertains to fan mount)	☐ YES	☐ NO	N/A
Mitigation system operation placard present and visible/legible	☐ YES	☒ NO	
Contains description of major components, valid contact number and instructions for occupant inquiries and/or system failure	☐ YES	☒ NO	
Mitigation system maintenance tag present and filled out	☐ YES	☒ NO	
Date of last inspection shown on tag: _____			
U-tube manometer present and intact at each extraction point	☒ YES	☐ NO	

Comments / Action Items

Electrical

Electrical connections secured	☒ YES	☐ NO	
Junction boxes are closed	☒ YES	☐ NO	
Conduit is supported	☒ YES	☐ NO	
Circuit breakers controlling the mitigation fan and alarm circuits operate and are labeled "Mitigation System"	☒ YES	☐ NO	
Power switch tagged with intact tamper proof seal	☐ YES	☒ NO	
Audible alarm present	☒ YES	☐ NO	
Audible alarm switch in "on" position (light on alarm is green)	☐ YES	☒ NO	

Comments / Action Items

Water Sumps (skip this section if no sump(s) present)

Sump present	☐ YES	☐ NO	
Number of sumps and locations are all shown on as-built drawing	☐ YES	☐ NO	
Sump pit is sealed to minimize influx of conditioned air	☐ YES	☐ NO	N/A
Penetrations to sump covers to accommodate electrical wiring, water injection pipes or vent pipes are sealed	☐ YES	☐ NO	N/A
Sump pits used as suction pits are identified with a label that reads; "This cover must be properly sealed for effective operation of the mitigation system - Contact Geosyntec Consultants (toll free 1-800-695-4436) for instructions on the correct procedure for replacement and sealing if removal or modification for any reason is performed"	☐ YES	☐ NO	N/A

Comments / Action Items

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

2. OPERATIONAL CHECKS

Fan is operating

Noise and Vibration within normal range

Alarm sounds when fan is turned off

☒ YES
☒ YES

NO

NO

U-Tube manometer indicating negative sub slab pressure

YES

NO

U-Tube Manometer Reading: Location: office Vacuum 0.8 in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

U-Tube Manometer Reading: Location: _____ Vacuum _____ in H₂O

Smoke test performed on internal penetrations and pipe joints

Smoke test indicated no leaks

Smoke test confirms air flow into sump

Back draft test confirms proper air flow at combustion appliances

Smoke test indicated no leaks

☒ YES
☒ YES
☒ YES
☒ YES

NO

NO

NO

NO

N/A

N/A

N/A

N/A

3. MAINTENANCE

Fan last replaced on (date): _____

Fan due to be replaced; _____

Additional Maintenance Action Items Performed

4. ADDITIONAL ACTION ITEMS/ COMMENTS/COMPLETION DATES

5. CERTIFICATION

I certify that the information on this form is true, accurate and complete (all blanks filled in) to the best of my knowledge and ability, and that I have the appropriate training and experience to perform this monitoring/inspection:

Name: DAN CHAMBERLAIN

Affiliation: PARSONS

Signature: [Signature]

Date (dd/mm/yy): 07/10/14 11:00 am/pm

ATTACHMENT B

**WATER LEVEL MEASUREMENT, SAMPLING MATRIX AND SAMPLING
RECORDS**

Ekonomol Water Levels- 8/11/2014

WELL ID	DTW	TIME	COMMENTS
INJ-01	7.55		0.8 voc 100 lel
INJ-02	8.53		2.72 co 72.8 voc 7.09 veg oil
INJ-03	6.99		3.8 voc 19.7 o2
INJ-04	12.62		99 co 103 voc 3 h2s 14.7 o2 7.53 veg oil
INJ-05	13.40		13.3 co 185 voc 8.6 lel 19.7 o2, 7.36 veg oil
INJ-06D	7.24		1.8 voc 50 co 100 lel 4 h2s
INJ-07D	7.47		1.1 voc 20.6 o2
INJ-08D	7.39		20.4 o2
INJ-09D	7.39		20.5 o2
INJ-10D	6.06		1.6 voc 8 lel 17.1 o2 6.07
INJ-11D	7.54		2.9 voc 16 h2s
INJ-12D	7.65		25 co 2.7 voc 7.04 veg oil jplug is small
INJ-13D	7.27		2.6 voc 3 lel 12.6 o6
MW-1S	4.1		6.1 voc 18.5 o2
MW-2S	2.99		25.9 voc
MW-3S	5.00		1.2 voc 19.9 o2
MW-4S	7.46		18 coc 17.6 voc
MW-5S	7.01		1.3 voc
MW-6S	6.49		Nothing
MW-7D	7.68		33.7 voc 20.2 o2
MW-7S	5.73		Nothing
MW-8S	6.50		Nothing
MW-9S	7.27		0.3 voc 18.5 o 2
MW-10D	7.3		1.5 voc
MW-10S	6.44		0.3 voc 20.8 o2
MW-11D	10.26		Nothing
MW-11S	7.91		21.2 o2
MW-12D	7.79		0.3 voc
MW-12S	7.48		0.2 voc
MW-13D	11.48		nothing
MW-14D	9.26		Nothing
MW-15D	9.18		3.8 voc
MW-16D	12.97		Nothing
MW-17D	9.21		Nothing
MW-18D	8.67		0.3 voc
MW-19D	7.21	12:13	2.2 voc
MW-20D	8.43		76.7 voc 15.6 o2
MW-21D	8.08		0.3 voc
OR-1SI	3.83		3.5 voc 100 lel 9.8 o2
OR-2SI	3.82		0.3 voc 3 lel 20.5 o 2
OR-3SM	2.84		0.3 voc 4 lel 20.1 o2
OR-4SM	3.85		20 o2 8.5 voc tubing fell
OR-5SM	2.75		1.0 voc 8 lel 20.5 o2
OR-6SM	6.44		25.5 voc 75 co 203 h2s 17.8 o2
OR-7SI	2.80		0.4 voc 100 lel 17.6 o2

WELL ID	DTW	TIME	COMMENTS
OR-8SI	6.38		8 lel, 0.9 voc
OR-9SM	7.19		Nothing
OR-10SM	3.89		H2S 314, 27.5 voc, 100 lel, 4.8 o2, 17 co
OR-11SI	7.32		Nothing
OR-12SI	7.31		1.4 voc, 13 lel
OR-13SM	7.33		Bottom
OR-14SM	7.28		7.4 voc, 315 h2s, 100 lel, 16.9 o2, 3.5 voc, 4 lel, 4 h2s
OR-15SM	6.49		0.2 voc
OR-16SI	8.04		Some bubbling heard after J-plug removed. 257 h2s, 7.4 o2, 100 lel, 7co
OR-17SI	6.48		1.7 voc, 20.3 h2s, 100 lel
OR-18SM	6.70		40.9 voc, 20.9 o2, 100 lel
PMW-1D	6.48		2.6 voc, 9 lel, 12.7 o2
PMW-1S	6.74		7.2 voc, 3 lel
PMW-2D	7.37		100 lel, 14.2 o2, 7 h2s, voc 217, co 437
PMW-2S	3.14		1.3 voc, 20.5 o2
PMW-3D	6.98		125 co, 102 voc, 1 h2s, 12.5 o2
PMW-3S	6.98		1080 co, 25 voc, 100 lel, 20.2 o2
PMW-4D	7.50		2 h2s, 145 voc, 803 co, broken wellcap
PMW-4S	7.79		3.4 voc, 17.1 o2, 7.76 veg oil
PMW-5D	7.46		196 co, 27 voc, 11 lel, 2 h2s
PMW-5S	3.97		4.7 voc
PMW-6D	6.37		24.3 voc, 96 co, 23 lel, 18.6 o2
PMW-6S	6.20		5.0 voc, 20.7 o2
PMW-7D	7.52		53.9 voc, 18.1 o2
PMW-7S	7.04		2.6 voc, 27 h2s
PMW-8D	7.04		123 co, 320 voc, 312 h2s
PMW-8S	7.26		1.8 voc, 20.7 o2
PMW-9D	7.53		42.9 voc
PMW-9S	7.28		39.6 voc, 4 h2s
PMW-10S	6.28		2.8 voc, 3 h2s
PMW-10D	7.22		6.42 co, 2.40 voc, 27 lel
PMW-11D	7.29		4.4 voc, 16.5 o2
PMW-11S	6.41		Nothing
PMW-12D	7.61		84.1 voc, 1 co, 20.6 o2
PMW-13D	7.36		33.3 voc, 6 co
PMW-14D	7.41		7 co
PMW-15D	7.77		4.8 voc, 19.5 o2, 6.06, veg oil 7.4
PMW-16D	7.04		20.2 o2
PMW-17D	7.54		14.7 o2
RMW-1D	7.23		18.9 o2, 0.2 voc
RMW-2D	6.67		878 voc, 241 co, 20.2 o2
RMW-3D	Dry		1.5 voc, 6.6 total depth?
RMW-4D	7.32		34 co, 30 lel, 7.6 voc, 0.2 h2s, 17.9 o2
TP-1	6.30		
TP-2	6.21		

TABLE 2
SUMMARY OF PROPOSED MONITORING
EKONOL POLYESTER RESINS, WHEATFIELD, NEW YORK

Location	Synoptic Water Level Measurement ^a	VOCs ^a (SW8260B)	Methane, Ethane, Ethene (Lab SOP)	Sulfate ^b (E300.1)	Dissolved Inorganics ^{b,c} (SW6010B)	Sulfide ^b (MS 4500-S2-F)	Total Organic Carbon (SW9060)	Microbial Population ^d (Lab SOP)	Acetylene	Real time Analyses ^e	Mobile Lab Analysis ^f
Overburden Bioreactor Monitoring Wells											
OR-3SM	1	1	1	1	1	1	1			1	1
OR-4SM	1	1	1	1	1	1	1			1	1
OR-5SM	1	1	1	1	1	1	1	1	1	1	1
OR-6SM	1	1	1	1	1	1	1	1	1	1	1
OR-9SM	1	1	1	1	1	1	1			1	1
OR-10SM	1	1	1	1	1	1	1			1	1
OR-13SM	1	1	1	1	1	1	1	1	1	1	1
OR-14SM	1	1	1	1	1	1	1	1	1	1	1
OR-15SM	1	1	1	1	1	1	1			1	1
OR-18SM	1	1	1	1	1	1	1			1	1
PMW-1S	1	1	1	1	1	1	1	1	1	1	1
PMW-2S	1	1	1	1	1	1	1	1	1	1	1
PMW-3S	1	1	1	1	1	1	1	1	1	1	1
PMW-4S	1	1	1	1	1	1	1			1	1
PMW-5S	1	1	1	1	1	1	1			1	1
PMW-6S	1	1	1	1	1	1	1			1	1
PMW-7S	1	1	1	1	1	1	1			1	1
PMW-8S	1	1	1	1	1	1	1			1	1
PMW-9S	1	1	1	1	1	1	1	1	1	1	1
PMW-10S	1	1	1	1	1	1	1	1	1	1	1
PMW-11S	1	1	1	1	1	1	1			1	1
Bedrock Injection/Withdrawal Wells											
INJ-7D	1	1	1	1	1	1	1	1	1	1	1
INJ-8D	1	1	1	1	1	1	1			1	1
INJ-9D	1	1	1	1	1	1	1	1	1	1	1
INJ-10D	1	1	1	1	1	1	1			1	1
INJ-11D	1	1	1	1	1	1	1			1	1
INJ-12D	1	1	1	1	1	1	1			1	1
INJ-13D	1	1	1	1	1	1	1			1	1
Bedrock Monitoring Wells											
PMW-9D	1	1	1	1	1	1	1			1	1
PMW-10D	1	1	1	1	1	1	1			1	1
PMW-11D	1	1	1	1	1	1	1	1	1	1	1
PMW-12D	1	1	1	1	1	1	1			1	1
PMW-13D	1	1	1	1	1	1	1			1	1
PMW-14D	1	1	1	1	1	1	1			1	1
PMW-15D	1	1	1	1	1	1	1	1	1	1	1
PMW-16D	1	1	1	1	1	1	1			1	1
PMW-17D	1	1	1	1	1	1	1	1	1	1	1
Pilot Test Wells											
PMW-1D	1	1	1	1	1	1	1			1	1
INJ-01	1	1	1	1	1	1	1			1	1
PMW-2D	1	1	1	1	1	1	1	1		1	1
PMW-3D	1	1	1	1	1	1	1			1	1
PMW-4D	1	1	1	1	1	1	1			1	1
PMW-6D	1	1	1	1	1	1	1	1		1	1
RMW-4D	1	1	1	1	1	1	1			1	1
PMW-7D	1	1	1	1	1	1	1			1	1
MW-7D	1	1	1	1	1	1	1			1	1
Site Investigation Wells											
MW-1S	1	1	1	1	1	1	1			1	1
MW-2S	1	1	1	1	1	1	1	1		1	1
MW-3S	1	1	1	1	1	1	1			1	1
MW-4S	1	1	1	1	1	1	1			1	1
MW-6S	1	1	1							1	1
MW-10S	1	1	1							1	1
MW-11S	1	1	1							1	1
MW-12S	1	1	1							1	1
RMW-2D	1	1	1	1	1	1	1	1		1	1
RMW-3D	1	1	1	1	1	1	1			1	1
MW-11D	1	1	1							1	1
MW-17D	1	1	1							1	1
MW-20D	1	1	1							1	1
MW-21D	1	1	1							1	1
Investigative Monitoring Wells											
RMW-1D	1	1	1	1	1	1	1			1	
PMW-5D	1	1	1	1	1	1	1			1	
PMW-8D	1	1	1	1	1	1	1			1	
MW-15D	1	1	1	1	1	1	1			1	
MW-16D	1	1	1	1	1	1	1			1	
MW-18D	1	1	1	1	1	1	1			1	
MW-19D	1	1	1	1	1	1	1			1	
MW-12D	1	1	1	1	1	1	1			1	
MW-13D	1	1	1	1	1	1	1			1	
MW-9S	1	1	1	1	1	1	1			1	
MW-7S	1	1	1	1	1	1	1			1	
INJ-02	1	1	1	1	1	1	1			1	
INJ-04	1	1	1	1	1	1	1			1	
INJ-05	1	1	1	1	1	1	1			1	
Monitoring Subtotal	74	74	74	66	66	66	66	19	15	74	60
QA/QC											
Duplicates		4	4	4	4		4				
Matrix Spike		4									
Matrix Spike Duplicate		4									
Trip Blanks		15									
TOTAL PER SAMPLING EVENT:		101	78	70	70	66	70	19	15	74	60
^a VOCs = volatile organic compounds, including aromatic and chlorinated aliphatic hydrocarbons. If present, an oil sample will also be collected and analyzed for VOCs. ^b All metal and cation samples must be field-filtered and immediately preserved (Al, Ca, Fe, K, Mg, Mn) ^c Dissolved inorganic compounds will consist of aluminum (Al), calcium (Ca), iron (Fe), potassium (K), magnesium (Mg), and manganese(Mn). Samples will be field filtered. ^d Analysis of microbial population composition will include concentration measurements of dehalococoides (DHC) and dehalobacter (DHB) species in cells per milliliter as well as DHC functional genes ^e Well head analyses include dissolved oxygen, oxidation-reduction potential, pH, temperature, electrical conductivity, and visual appearance. ^f Mobile lab analyses include carbon dioxide, alkalinity, sulfide, ferrous iron, and manganese. ^g For the baseline monitoring round, all Site Water Levels will be recorded											

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: OR-3SM Manual Entry: 		Well Diameter: inches									
						Purging Data Method: (i.e. low flow) Low flow						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 2.89			Depth to Well Bottom (ft): 														
Date: 08/20/2014		Time: 0925 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
0930	3.80	100	0.15	6.38	0.00	25.2	13.2	22.84	8.21	-109							
0935	3.80	100	0.30	6.41	0.00	22.9	13.3	22.25	8.27	-121							
0940	3.82	100	0.60	6.42	0.00	18.3	13.3	21.89	8.26	-128							
0945	3.85	100	0.80	6.42	0.00	11.1	13.1	21.10	8.12	-135							
0950	4.01	100	1.00	6.42	0.00	11.2	13.0	21.08	8.06	-136							
0955	4.02	100	1.25	6.41	0.00	10.35	12.9	20.85	8.02	-141							
1000	4.01	100	1.50	6.40	0.00	8.53	13.0	20.83	8.03	-142							
1005	4.00	100	1.75	6.40	0.00	9.37	13.0	20.79	8.04	-144							
1010	4.00	100	2.00	6.39	0.00	8.72	12.9	20.88	8.00	-147							
1015	4.00	100	2.25	6.38	0.00	9.18	12.8	20.78	7.94	-148							
1020	4.02	100	2.50	6.39	0.00	10.7	12.8	20.71	7.90	-151							
1025	4.03	100	2.75	6.37	0.00	9.32	12.7	20.69	7.89	-153							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/20/2014		Time: (hhmm) 1025		Total Volume of Water Purged: 2.75 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.37	Alkalinity (mg/L)	840	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	12.7	Carbon Dioxide (mg/L)	202	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	9.32	Ferrous Iron (mg/L)	2.4	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	20.69	Hydrogen Sulfide (mg/L)	0.3	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-153	DTW (ft)	4.03	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	7.89	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: Water turned orange for manganese test																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Select...						Well ID: OR-4SM		Well Diameter: 2 inches									
						Manual Entry:											
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 3.7			Depth to Well Bottom (ft): 														
Date: 08/20/2014		Time: 11:40 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
11:40	3.7	200	0.0	6.86	3.73	21.6	0.441	26.96	0.513	14	Clear						
11:50	3.76	200	0.5	6.18	0.0	1.12	2.83	23.18	1.82	-105	No						
12:00	3.80	200	1.0	6.18	0.0	1.77	2.83	22.26	1.81	-106	Odor						
12:10	3.83	200	1.5	6.18	0.0	1.25	2.81	22.37	1.79	-108	Same						
12:15	3.84	200	1.7	6.18	0.0	3.74	2.79	22.37	1.79	-108	Very						
12:20	3.85	200	1.9	6.18	0.0	4.89	2.78	22.38	1.78	-108	Slight						
12:25	3.86	200	2.2	6.17	0.0	4.14	2.78	22.64	1.78	-109	Odor						
12:30	3.87	200	2.4	6.16	0.0	4.98	2.77	22.83	1.77	-109	Same						
12:35	3.88	200	2.6	6.16	0.0	5.05	2.76	22.99	1.77	-109	Same						
12:40	3.89	200	2.8	6.16	0.0	4.17	2.75	23.12	1.76	-109	Same						
Sampling Data																	
Method: (i.e. low flow)				Date:		Time: (hhmm)		Total Volume of Water Purged:									
				08/20/2014		12:40		2.8 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.16	Alkalinity (mg/L)	1,420	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	2.75	Carbon Dioxide (mg/L)	876	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	4.17	Ferrous Iron (mg/L)	2.4	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	23.12	Hydrogen Sulfide (mg/L)	0.1	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-109	DTW (ft)	3.89	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	1.76	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
Comments:				Microbial Census	☐												
				Hydrogen Acetylene	☐												
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: OR-5SM		Well Diameter: 2 inches									
						Manual Entry:											
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 2.58			Depth to Well Bottom (ft):														
Date: 08/13/2014		Time: 13:40 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
13:40	2.58	200	0.0	7.21	1.57	70.4	7.21	26.90	4.46	-93	Clear						
13:50	2.60	200	0.5	6.25	0.0	44.7	6.21	24.92	3.92	-122	No						
14:00	2.60	200	1.0	6.21	0.0	2.40	6.26	24.53	3.95	-134	Odor						
14:10	2.60	200	1.5	6.18	0.0	1.87	6.20	25.16	3.90	-146	Same						
14:15	2.60	200	1.7	6.18	0.0	2.50	6.18	25.12	3.89	-150	Same						
14:20	2.60	200	2.0	6.18	0.0	2.55	6.15	25.13	3.88	-155	Turning black						
14:25	2.60	200	2.2	6.18	0.0	3.26	56.15	25.07	3.88	-162	Same						
14:30	2.60	200	2.4	6.17	0.0	3.74	6.15	24.85	3.88	-169	Same						
14:35	2.60	200	2.7	6.16	0.0	1.97	6.15	24.63	3.87	-174	Same						
14:40	2.60	200	2.9	6.15	0.0	2.03	6.14	24.48	3.87	-181	Same						
14:45	2.61	200	3.1	6.15	0.0	1.99	6.17	24.46	3.89	-183	Same						
Sampling Data																	
Method: (i.e. low flow) Dedicated tubing				Date: 08/13/2014		Time: (hhmm) 14:45		Total Volume of Water Purged: 3.1 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.15	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	6.17	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	1.99	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	24.46	Hydrogen Sulfide (mg/L)	0.5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-183	DTW (ft)	2.61	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	3.89	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☒	1 filter											
				Hydrogen Acetylene	☒												
Comments: Collect dup OR-50SM_2015-08-13. At 12:01																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: OR-6SM Manual Entry:		Well Diameter: 2 inches									
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 6.67			Depth to Well Bottom (ft): 														
Date: 08/14/2014		Time: 08:10 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
08:10	6.67	200	0.0	6.06	0.86	11.1	3.97	19.86	2.54	-71	Clear,veggie oil						
08:20	6.85	200	0.5	6.28	0.0	3.0	2.84	19.61	1.82	-188	Same						
08:30	7.27	200	1.0	6.34	0.0	0.56	3.17	19.99	2.03	-252	Same						
08:40	7.43	200	1.5	6.34	0.0	8.34	3.49	20.79	2.24	-306	Slighttint						
08:45	7.46	150	1.6	6.34	0.0	7.68	3.55	20.90	2.31	-317	Same						
08:50	7.50	150	1.8	6.34	0.0	4.53	3.70	21.04	2.37	-327	Same						
08:55	7.51	150	2.0	6.34	0.0	5.47	3.73	21.27	2.39	-331	Same						
09:00	7.58	100	2.2	6.35	0.0	5.13	3.75	21.86	2.41	-339							
09:05	7.65	100	2.3	6.36	0.0	1.63	3.77	22.04	2.43	-348							
09:10	7.68	100	2.4	6.36	0.0	3.47	3.79	21.91	2.43	-349	Wateroxidizing						
09:15	7.63	100	2.5	6.37	0.0	2.09	3.93	21.98	2.51	-360	Same						
09:10	7.64	100	2.6	6.38	0.0	4.66	3.90	22.00	2.51	-368	Same						
09:25	7.65	100	2.7	6.39	0.0	3.67	3.88	22.04	2.51	-374	Same						
09:30	7.66	100	2.8	6.39	0.0	5.22	3.91	22.08	2.50	-378	Oxidizing						
09:35	7.67	100	2.9	6.39	0.0	4.88	3.92	22.12	2.52	-380	Odor						
09:40	7.69	100	3.0	6.39	0.0	6.89	3.94	22.16	2.53	-382	Same						
09:45	7.71	100	3.1	6.40	0.0	6.37	3.95	22.18	2.54	-385	Same						
09:50	7.72	100	3.2	6.41	0.0	5.51	3.96	22.19	2.56	-390	Same						
Sampling Data																	
Method: (i.e. low flow)				Date:		Time: (hhmm)		Total Volume of Water Purged:									
				08/14/2014		09:50		3.2 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.41	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	3.96	Carbon Dioxide (mg/L)		Select VOCs	✓	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	5.51	Ferrous Iron (mg/L)		MEE	✓	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)		Dissolved Inorganics	✓	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	22.19	Hydrogen Sulfide (mg/L)	1.5	Chloride / Nitrate / Sulfate	✓	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-390	DTW (ft)	7.72	Sulfide	✓	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	2.56	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	✓	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	✓	1 filter											
				Hydrogen Acetylene	✓												
Comments:																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: OR-9SM Manual Entry: 		Well Diameter: inches									
						Purging Data Method: (i.e. low flow) Low flow						WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
												Initial Depth to Water (ft): 7.37			Depth to Well Bottom (ft): 		
Date: 08/20/2014		Time: 1505 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1510	7.65	100	0.25	6.75	0.00	14.4	2.37	24.96	1.51	-322							
1515	7.67	100	0.50	6.73	0.00	11.7	2.28	24.63	1.46	-323							
1520	7.68	100	0.75	6.72	0.00	18.5	2.28	24.79	1.46	-322							
1525	7.67	100	1.00	6.73	0.00	11.8	2.32	24.68	1.48	-322							
1530	7.67	100	1.25	6.72	0.00	9.41	2.32	24.68	1.49	-322							
1535	7.67	100	1.50	6.73	0.00	10.3	2.34	24.71	1.50	-322							
1540	7.67	100	1.75	6.72	0.00	8.68	2.36	24.48	1.51	-322							
1545	7.67	100	2.00	6.71	0.00	6.55	2.38	24.40	1.52	-323							
1550	7.67	100	2.25	6.71	0.00	7.42	2.38	24.37	1.52	-323							
1555	7.67	100	2.50	6.70	0.00	5.79	2.38	24.32	1.53	-323							
1600	7.67	100	2.75	6.71	0.00	3.42	2.40	24.30	1.53	-324							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/20/2014		Time: (hhmm) 1600		Total Volume of Water Purged: 2.75 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.71	Alkalinity (mg/L)	720	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	2.40	Carbon Dioxide (mg/L)	368	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	3.42	Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	24.30	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-324	DTW (ft)	7.67	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	1.53	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: 																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: OR-10SM		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.42			Depth to Well Bottom (ft): 														
Method: (i.e. low flow) Low flow		Date: 08/20/2014		Time: 1225 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16							
						4-inch=0.64		6-inch=1.4		8-inch=2.5							
										10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1230	7.91	100	0.20	6.54	0.00	9.39	3.23	23.34	2.06	-242							
1235	7.93	100	0.40	6.52	0.00	8.36	3.30	22.93	2.11	-253							
1240	7.99	100	0.60	6.55	0.00	5.57	3.43	22.72	2.20	-258							
1245	8.04	100	0.80	6.56	0.00	3.41	3.51	22.61	2.25	-266							
1250	8.03	100	1.00	6.58	0.00	4.39	3.76	22.80	2.42	-268							
1255	8.01	100	1.25	6.59	0.00	6.49	3.67	22.91	2.35	-285							
1300	8.02	100	1.40	6.60	0.00	3.17	3.75	22.87	2.39	-295							
1305	8.03	100	1.60	6.61	0.00	2.98	3.84	22.70	2.46	-303							
1310	8.04	100	1.80	6.62	0.00	0.67	3.89	22.68	2.49	-307							
1315	8.02	100	2.05	6.63	0.00	1.28	3.93	22.58	2.51	-314							
1320	8.03	100	2.25	6.62	0.00	0.90	3.90	22.59	2.50	-315							
1325	8.02	100	2.45	6.63	0.00	0.62	3.95	22.50	2.53	-317							
1330	8.02	100	2.70	6.64	0.00	1.09	4.02	22.27	2.58	-318							
1335	8.04	100	2.90	6.65	0.00	4.31	4.02	22.32	2.64	-320							
1340	8.03	100	3.10	6.64	0.00	2.58	4.20	22.17	2.69	-321							
1345	8.03	100	3.30	6.64	0.00	0.82	4.19	22.14	2.68	-323							
1350	8.04	100	3.60	6.65	0.00	0.88	4.24	22.12	2.72	-323							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/20/2014		Time: (hhmm) 1350		Total Volume of Water Purged: 3.6 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.65	Alkalinity (mg/L)	1,220	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	4.24	Carbon Dioxide (mg/L)	394	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	0.88	Ferrous Iron (mg/L)	0.4	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	22.12	Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-323	DTW (ft)	8.04	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	2.72	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: Water turned orange for manganese test.																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: OR-13SM							
						Manual Entry: 							
												Well Diameter: 2 inches	
						Purging Data						WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 6.32			Depth to Well Bottom (ft): 										
Method: (i.e. low flow) Low flow		Date: 08/13/2014		Time: 1440 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16			
						4-inch=0.64		6-inch=1.4		8-inch=2.5			
10-inch=4													
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
1445	6.95	100	0.15	6.31	1.43	6.50	4.60	25.17	2.94	-106			
1450	6.93	100	0.30	6.27	0.00	5.58	4.58	24.13	2.93	-138			
1455	6.94	100	0.45	6.29	0.00	4.47	4.55	23.00	2.91	-199			
1500	6.94	100	0.65	6.25	0.00	3.95	4.53	22.64	2.90	-228			
1505	6.94	100	0.90	6.28	0.00	4.16	4.51	22.37	2.89	-261			
1510	6.93	100	1.15	6.29	0.00	4.49	4.50	22.28	2.88	-278			
1515	6.94	100	1.30	6.26	0.00	4.87	4.50	25.50	2.88	-290			
1520	6.95	100	1.50	6.27	0.00	4.70	4.50	22.30	2.88	-308			
1525	6.96	100	1.85	6.29	0.00	4.35	4.51	21.54	2.89	-336			
1530	6.98	100	2.15	6.29	0.00	4.33	4.53	21.36	2.90	-354			
1535	6.98	100	2.35	6.26	0.00	4.16	4.57	21.51	2.92	-379			
1540	6.99	100	2.65	6.27	0.00	4.43	4.61	21.46	2.95	-389			
1545	6.98	100	2.90	6.25	0.00	4.35	4.58	21.44	3.00	-398			
Sampling Data													
Method: (i.e. low flow) Low flow				Date: 08/13/2014				Time: (hhmm) 1545		Total Volume of Water Purged: 2.9 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	6.25	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	4.58	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	4.35	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	21.44	Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-398	DTW (ft)	6.98	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	3.00	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
Comments: Black particles in water, water is grayish colored.				Microbial Census	☒	2 filters, 1 - 250 ml, 1 - 200 ml							
				Hydrogen Acetylene	☒								
PARSONS													

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: OR-14SM									
						Manual Entry: 									
										Well Diameter: 2 inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 6.62			Depth to Well Bottom (ft): 												
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/14/2014		Time: 0810 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
0820	6.62	100	0.25	5.97	0.00	12.2	2.30	18.99	1.48	-163					
0825	6.66	100	0.35	6.42	0.00	5.30	2.67	18.43	1.72	-234					
0830	6.66	100	0.50	6.46	0.00	4.49	2.78	18.28	1.78	-248					
0835	6.68	100	0.75	6.43	0.00	3.37	2.88	18.12	1.85	-282					
0840	6.70	100	1.00	6.37	0.00	2.38	2.92	18.01	1.87	-303					
0845	6.71	100	1.25	6.29	0.00	2.82	2.95	17.91	1.89	-308					
0850	6.73	100	1.50	6.24	0.00	3.90	2.96	17.88	1.90	-312					
0855	6.74	100	1.75	6.22	0.00	10.90	3.03	17.81	1.94	-318					
0900	6.75	100	2.00	6.20	0.00	2.78	3.08	17.77	1.97	-329					
0905	6.77	100	2.25	6.19	0.00	2.65	3.10	17.78	1.99	-335					
0910	6.78	100	2.50	6.19	0.00	2.25	3.13	17.74	2.01	-338					
0915	6.79	100	2.70	6.19	0.00	2.08	3.13	17.74	2.01	-340					
Sampling Data															
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:					
Low flow				08/14/2014				0915		2.7 (gal)					
HORIBA				HACH TEST KITS				SAMPLE SET							
pH	6.19			Alkalinity (mg/L)				Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	3.13			Carbon Dioxide (mg/L)				Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	2.08			Ferrous Iron (mg/L)				MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00			Manganese (mg/L)				Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	17.74			Hydrogen Sulfide (mg/L)	5			Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-340			DTW (ft)	6.79			Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	2.01			* NOTE * HACH test kits are only required for MNA analysis wells.				Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
								Microbial Census	☒	1 filter, 1000 ml					
								Hydrogen Acetylene	☒						
Comments: Grayish colored water. Collected MS/MSD. Water too dark for HACH kits.															
PARSONS															

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: OR-15SM									
						Manual Entry:									
												Well Diameter: 2 inches			
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 6.51			Depth to Well Bottom (ft):												
Purging Data		Method: (i.e. low flow) Geopump		Date: 08/20/2014		Time: 15:20 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
15:20	6.51	200	0.0	7.01	2.77	76.3	2.58	29.53	1.91	-103	Clear				
15:30	6.75	200	0.5	6.28	0.0	4.50	3.28	23.21	2.10	-139	No odor				
15:40	6.80	200	1.0	6.30	0.0	3.74	3.29	22.53	2.10	-145	Same				
15:50	6.86	200	1.5	6.35	0.0	9.14	3.30	21.89	2.11	-148	Yellow				
15:55	6.88	200	1.7	6.35	0.0	16.6	3.30	21.85	2.11	-148	Tint				
16:00	6.91	200	1.9	6.36	0.0	20.2	3.31	21.83	2.12	-149	Same				
16:05	6.93	200	2.2	6.35	0.0	11.8	3.30	21.84	2.11	-149					
16:10	6.95	200	2.4	6.35	0.0	11.2	3.28	21.83	2.10	-149					
16:15	6.97	200	2.6	6.34	0.0	5.97	3.27	21.67	2.09	-148					
16:20	7.01	200	2.8	6.34	0.0	10.35	3.28	21.73	2.10	-148					
Sampling Data															
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:					
				08/20/2014				16:20		2.8 (gal)					
HORIBA				HACH TEST KITS				SAMPLE SET							
pH	6.34			Alkalinity (mg/L)	1,880			Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	3.28			Carbon Dioxide (mg/L)	796			Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	10.35			Ferrous Iron (mg/L)	2.6			MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.0			Manganese (mg/L)	0			Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	21.73			Hydrogen Sulfide (mg/L)	0			Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-148			DTW (ft)	7.01			Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	2.10			* NOTE * HACH test kits are only required for MNA analysis wells.				Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
Comments:								Microbial Census	☐						
								Hydrogen Acetylene	☐						
PARSONS															

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: OR-18SM		Well Diameter: 2 inches									
						Manual Entry: 											
												WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 6.29			Depth to Well Bottom (ft): 														
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/19/2014		Time: 1245 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36			
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1250	6.34	100	0.15	7.41	0.14	17.8	1.30	27.28	0.836	-295							
1255	6.34	100	0.40	7.41	0.00	8.09	1.33	24.55	0.855	-308							
1300	6.35	100	0.60	7.31	0.00	2.79	1.40	23.15	0.894	-318							
1305	6.35	100	0.75	7.22	0.00	3.38	1.46	22.69	0.934	-323							
1310	6.35	100	0.95	7.14	0.00	4.19	1.48	22.53	0.945	-325							
1315	6.35	100	1.10	7.09	0.00	5.12	1.48	22.57	0.948	-328							
1320	6.34	100	1.25	7.05	0.00	4.42	1.51	22.56	0.968	-329							
1325	6.34	100	1.40	7.03	0.00	5.03	1.54	22.69	0.984	-329							
1330	6.35	100	1.55	7.02	0.00	4.52	1.54	22.95	0.985	-330							
1335	6.35	100	1.75	6.99	0.00	4.21	1.61	23.58	1.03	-328							
1340	6.34	100	1.95	6.98	0.00	3.78	1.76	24.05	1.12	-328							
1345	6.35	100	2.10	6.98	0.00	4.01	1.59	23.92	1.01	-329							
1350	6.35	100	2.25	6.97	0.00	5.05	1.52	24.40	0.976	-330							
1355	6.33	100	2.40	6.97	0.00	5.27	1.52	24.17	0.971	-328							
1400	6.34	100	2.55	6.97	0.00	3.54	1.50	23.48	0.962	-329							
1405	6.33	100	2.70	6.97	0.00	4.63	1.49	23.47	0.955	-330							
1410	6.33	100	2.80	6.97	0.00	2.86	1.49	23.51	0.951	-330							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/19/2014				Time: (hhmm) 1410		Total Volume of Water Purged: 2.8 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.97	Alkalinity (mg/L)	520	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	1.49	Carbon Dioxide (mg/L)	290	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	2.86	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	23.51	Hydrogen Sulfide (mg/L)	0.3	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-330	DTW (ft)	6.33	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	0.951	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: 																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: PMW-1S									
						Manual Entry: 									
										Well Diameter: 2 inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 2.61			Depth to Well Bottom (ft): 												
Purging Data		Method: (i.e. low flow) Geopump		Date: 08/13/2014		Time: 11:10 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
11:10	2.61	200	0	7.75	1.39	13.2	5.34	22.63	3.34	-219	Clear				
11:20	3.00	200	0.5	7.67	0.0	0.98	4.90	21.94	3.14	-316	Veg oil				
11:30	2.96	200	1.0	7.62	0.0	0.40	5.03	21.84	3.17	-328					
11:40	2.96	200	1.5	7.54	0.0	0.80	5.13	21.99	3.24	-333	Same				
11:45	2.94	200	1.7	7.52	0.0	1.06	5.15	21.97	3.25	-335					
11:50	2.93	200	1.9	7.51	0.0	1.52	5.18	21.94	3.26	-336	Same				
11:55	2.92	200	2.1	7.46	0.0	1.89	5.14	22.37	3.23	-336					
12:00	2.91	200	2.4	7.44	0.0	2.20	5.09	22.50	3.21	-336					
12:05	2.90	200	2.6	7.43	0.0	0.35	5.15	22.25	3.24	-339	Same				
12:10	2.90	200	2.9	7.40	0.0	1.4	5.20	22.23	3.28	-339					
12:15	2.91	200	3.2	7.40	0.0	0.57	5.23	22.27	3.31	-339					
Sampling Data															
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:					
Dedicated tubing				08/13/2014				12:15		3.2 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	7.4	Alkalinity (mg/L)	140	Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	5.23	Carbon Dioxide (mg/L)	106	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	0.57	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	22.27	Hydrogen Sulfide (mg/L)	0.6	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-339	DTW (ft)		Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	3.31	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060							
				Microbial Census	☒	1 filterw									
				Hydrogen Acetylene	☒										
Comments:															
PARSONS															

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-2S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Low flow						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 3			Depth to Well Bottom (ft): 														
Date: 08/12/2014		Time: 1300 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1305	4.44	125	0.5	7.26	2.23	30.1	3.14	24.06	2.03	-235							
1310	5.40	100	0.75	7.15	0.24	30.2	3.56	24.29	2.18	-237							
1315	5.62	100	1.00	7.04	0.00	35.7	5.13	24.53	3.25	-251							
1320	5.76	100	1.25	7.10	0.00	31.8	5.41	23.63	3.40	-269							
1325	5.73	100	1.50	7.08	0.00	20.9	5.84	23.47	3.69	-282							
1330	5.73	100	1.75	7.08	0.00	17.9	5.99	22.71	3.77	-289							
1335	5.72	100	2.00	7.05	0.00	11.2	6.07	22.20	3.83	-287							
1340	5.74	100	2.25	7.03	0.00	10.2	6.11	21.94	3.84	-289							
1345	5.75	100	2.5	7.00	0.00	12.0	6.07	21.97	3.80	-290							
1350	5.75	100	2.75	7.01	0.00	14.5	6.09	22.02	3.84	-286							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/12/2014		Time: (hhmm) 1350		Total Volume of Water Purged: 2.75 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	7.01	Alkalinity (mg/L)	300	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	6.09	Carbon Dioxide (mg/L)	172	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	14.5	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	22.02	Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-16	DTW (ft)	5.75	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	3.84	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
Comments: 				Microbial Census	☒	1 filter, 1000 ml											
				Hydrogen Acetylene	☒												
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: Ekonol Facility Samplers: Caryn Moore						Well ID: PMW-3S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 6.03			Depth to Well Bottom (ft): 														
Method: (i.e. low flow) Low flow		Date: 08/13/2014		Time: 0850 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16							
						4-inch=0.64		6-inch=1.4		8-inch=2.5							
10-inch=4																	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
0855	7.10	100	0.30	6.14	0.00	27.7	3.22	20.46	2.05	-2							
0900	7.23	100	0.45	6.14	0.00	21.9	3.27	20.33	2.10	-6							
0905	7.28	100	0.60	6.17	0.00	21.7	3.41	20.13	2.18	-17							
0910	7.37	100	0.75	6.21	0.00	18.4	3.63	19.95	2.32	-87							
0915	7.43	100	0.90	6.25	0.00	13.9	3.87	19.86	2.49	-111							
0920	7.47	100	1.10	6.28	0.00	8.62	4.15	19.73	2.67	-144							
0925	7.53	100	1.35	6.32	0.00	6.14	4.44	19.69	2.85	-180							
0930	7.56	100	1.55	6.36	0.00	7.14	4.70	19.64	3.01	-218							
0935	7.53	100	1.75	6.36	0.00	12.0	4.51	19.73	2.89	-244							
0940	7.54	100	2.00	6.36	0.00	3.99	5.12	19.68	3.21	-260							
0945	7.53	100	2.25	6.35	0.00	3.59	5.31	19.66	3.35	-273							
0950	7.52	100	2.45	6.36	0.00	4.21	5.46	19.66	3.43	-280							
0955	7.53	100	2.65	6.36	0.00	3.76	5.58	19.73	3.51	-287							
1000	7.54	100	2.8	6.36	0.00	4.02	5.47	19.74	3.23	-293							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/13/2014			Time: (hhmm) 1000		Total Volume of Water Purged: 2.8 (gal)								
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.36	Alkalinity (mg/L)	760	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	5.47	Carbon Dioxide (mg/L)	462	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	4.02	Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	19.74	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-293	DTW (ft)	7.54	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	3.23	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☒	2 filters 1- 600 ml, 1 - 400 ml											
				Hydrogen Acetylene	☒												
Comments:																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: PMW-4S							
						Manual Entry: 							
										Well Diameter: inches			
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 6.15			Depth to Well Bottom (ft): 										
Purging Data		Method: (i.e. low flow)		Date:		Time:		1-inch=0.041		1.5-inch=0.092			
Geopump		08/20/2014		09:20		(hhmm)		4-inch=0.64		6-inch=1.4			
								2-inch=0.16		3-inch=0.36			
								8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
09:20	6.15	200	0	7.12	0.51	0.9	1.07	21.00	0.670	-21			
09:30	7.25	200	0.5	6.60	0.0	3.41	0.394	21.36	0.257	2	Clear		
09:40	7.60	200	1.0	6.23	0.0	2.48	0.778	21.73	0.509	-6	Light		
09:50	8.06	150	1.5	6.23	0.0	4.41	1.58	21.63	1.01	-27	Odor		
09:55	8.41	150	1.7	6.27	0.0	2.47	1.68	21.62	1.10	-31			
10:00	8.52	100	1.8	6.31	0.0	1.23	1.88	21.62	1.20	-35	Same		
10:05	8.70	100	1.9	6.34	0.0	1.01	1.99	21.70	1.27	-38			
10:10	8.72	100	2.0	6.33	0.0	1.23	1.97	21.70	1.27	-36			
10:15	8.73	100	2.1	6.36	0.0	5.68	2.17	21.85	1.39	-38			
10:20	8.82	100	2.2	6.37	0.0	4.40	2.20	21.88	1.46	-39			
10:25	8.90	100	2.3	6.39	0.0	1.84	2.24	21.92	1.57	-41			
10:30	9.00	100	2.5	6.42	0.0	2.27	2.36	21.91	1.65	-43			
10:35	9.06	100	2.6	6.44	0.0	1.78	2.45	21.94	1.71	-44			
10:40	9.11	100	2.7	6.45	0.0	3.31	2.51	21.97	1.77	-43			
Sampling Data													
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:			
				08/20/2014				10:40		2.7 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	6.45	Alkalinity (mg/L)	240	Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	2.51	Carbon Dioxide (mg/L)	290	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	3.31	Ferrous Iron (mg/L)	3.8	MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	21.97	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-43	DTW (ft)	9.11	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	1.77	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☐								
				Hydrogen Acetylene	☐								
Comments:													
PARSONS													

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-5S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Low flow						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 3.24			Depth to Well Bottom (ft): 														
Date: 08/12/2014		Time: 0932 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
0940	6.65	175	0.5	6.76	0.00	11.9	1.98	23.65	1.26	75							
0945	7.20	150	1.00	6.75	0.15	15.8	1.87	23.93	1.20	86							
0950	7.72	125	1.25	6.68	0.18	15.2	3.03	24.85	1.98	80							
0955	8.02	100	1.50	6.69	0.11	10.01	3.44	24.96	2.21	76							
1000	8.13	100	1.75	6.69	0.37	10.7	3.67	24.70	2.35	78							
1005	8.41	100	2.00	6.69	0.01	50.1	3.75	24.44	2.40	81							
1010	8.66	100	2.25	6.69	0.01	95.5	3.76	24.43	2.41	80							
1015	8.79	100	2.50	6.65	0.03	102.1	3.88	22.96	2.48	75							
1020	8.78	100	2.75	6.73	4.59	34.6	3.96	22.30	2.53	76							
1025	8.78	100	3.00	6.71	6.16	27.2	3.91	22.33	2.53	73							
1030	8.78	100	3.25	6.83	6.40	23.9	4.00	22.37	2.57	70							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/12/2014		Time: (hhmm) 1030		Total Volume of Water Purged: 3.25 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.83	Alkalinity (mg/L)	580	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	4.00	Carbon Dioxide (mg/L)	364	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	23.9	Ferrous Iron (mg/L)	1.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	6.40	Manganese (mg/L)	0.1	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	22.37	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	70	DTW (ft)	8.78	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	2.57	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: MS/MSD Collected VOCs only. Manbox full of water, bailed out water prior to removing well cap.																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: PMW-6S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 6.71			Depth to Well Bottom (ft): 														
Date: 08/20/2014		Time: 13:35				1-inch=0.041		1.5-inch=0.092		2-inch=0.16							
		(hhmm)				4-inch=0.64		6-inch=1.4		8-inch=2.5							
								10-inch=4									
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
13:35	6.71	200	0	7.05	2.83	25.3	2.56	28.58	1.66	-55	Clear						
13:45	8.20	200	0.5	6.24	0.0	6.18	2.33	23.01	1.49	-83	No						
13:55	8.60	200	1.0	6.23	0.0	4.27	2.40	22.73	1.54	-82	Odor						
14:05	9.0	200	1.5	6.22	0.0	8.03	2.77	22.00	1.78	-85	Same						
14:10	9.18	200	1.7	6.21	0.0	7.62	2.83	21.64	1.80	-85	Clear						
14:15	9.30	200	1.9	6.20	0.0	6.10	2.87	21.39	1.83	-86	No odor						
14:20	9.40	200	2.2	6.20	0.0	5.85	2.86	21.29	1.83	-88	Yellow						
14:25	9.46	200	2.4	6.20	0.0	6.67	2.85	21.14	1.86	-89	Tint						
14:30	9.51	200	2.7	6.19	0.0	6.28	2.84	21.05	1.89	-90							
Sampling Data																	
Method: (i.e. low flow)				Date: 08/20/2014				Time: (hhmm) 14:30		Total Volume of Water Purged: 2.7 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.19	Alkalinity (mg/L)	1,340	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	2.84	Carbon Dioxide (mg/L)	1,150	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	6.28	Ferrous Iron (mg/L)	4.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	21.05	Hydrogen Sulfide (mg/L)	0.2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-90	DTW (ft)	9.51	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	1.89	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments:																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-7S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Low flow						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.01			Depth to Well Bottom (ft): 														
Date: 08/19/2014		Time: 1100 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1110	7.91	100	0.40	6.64	0.13	4.59	0.732	24.77	0.466	-7							
1115	8.22	100	0.60	6.65	0.00	2.16	0.709	24.54	0.456	15							
1120	8.54	100	0.80	6.69	0.00	1.53	0.793	24.49	0.527	27							
1125	8.57	100	0.95	6.72	0.00	1.26	0.934	24.17	0.602	33							
1130	9.05	100	1.15	6.77	0.00	1.19	1.24	23.94	0.800	33							
Sampling Data																	
Method: (i.e. low flow) Low flowx				Date: 08/20/2014		Time: (hhmm) 0815		Total Volume of Water Purged: 1.15 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH		Alkalinity (mg/L)	260	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	166	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)		Ferrous Iron (mg/L)	0.6	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)		Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)		Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)		DTW (ft)	7.45	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: Dry at 1133																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-8S		Well Diameter: 2 inches									
						Manual Entry: 											
												WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.09			Depth to Well Bottom (ft): 														
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/18/2014		Time: 1440 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36			
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1445	7.53	100	0.15	6.99	1.30	19.9	0.391	24.61	0.254	-25							
1450	7.71	100	0.35	6.86	0.17	15.9	0.230	24.57	0.143	-9							
1455	7.85	100	0.45	6.77	0.00	13.3	0.190	24.38	0.123	-4							
1500	7.99	100	0.60	6.73	0.00	10.44	0.218	24.27	0.142	-14							
1505	8.09	100	0.85	6.82	0.00	6.84	0.292	24.30	0.193	-129							
1510	8.24	100	1.00	6.85	0.00	5.49	0.360	24.50	0.236	-40							
1515	8.36	100	1.20	6.93	0.00	4.31	0.442	24.12	0.292	-49							
1520	8.51	100	1.45	6.92	0.00	3.21	0.542	24.21	0.359	-65							
1525	8.58	100	1.60	6.99	0.00	2.46	0.677	24.01	0.435	-95							
1530	8.69	100	1.75	6.93	0.00	4.27	0.817	23.92	0.526	-147							
1535	8.80	100	1.90	6.95	0.00	3.65	0.920	23.61	0.591	-180							
1540	8.85	100	2.05	6.93	0.00	2.43	1.00	23.56	0.639	-211							
1545	8.91	100	2.25	6.86	0.00	2.97	1.25	23.72	0.796	-248							
1550	9.03	100	2.45	6.86	0.00	2.48	1.32	23.63	0.840	-268							
1555	9.09	100	2.60	6.82	0.00	2.23	1.46	23.64	0.933	-284							
1600	9.20	100	2.75	6.82	0.00	1.37	1.54	24.32	0.992	-293							
1605	9.25	100	2.90	6.77	0.00	0.54	1.60	23.82	1.02	-303							
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/19/2014				Time: (hhmm) 0955		Total Volume of Water Purged: 3 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH		Alkalinity (mg/L)	500	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	170	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)		Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)		Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)		Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)		DTW (ft)	7.03	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: Dry at 9.28'																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-9S		Well Diameter: inches									
						Manual Entry: 											
						Purging Data						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 6.53			Depth to Well Bottom (ft): 														
Method: (i.e. low flow) Low flow		Date: 08/13/2014		Time: 1210 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16							
						4-inch=0.64		6-inch=1.4		8-inch=2.5							
										10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1215	7.28	100	0.10	6.78	0.00	6.55	7.87	21.41	4.93	6							
1220	7.73	100	0.30	6.70	0.00	7.81	7.31	21.16	4.59	9							
1225	8.04	100	0.50	6.66	0.00	4.67	7.03	20.77	4.42	10							
1230	8.10	100	0.70	6.65	0.00	5.11	6.86	20.86	4.31	13							
1235	8.09	100	1.0	6.62	0.00	3.36	6.77	20.67	4.25	18							
1240	8.11	100	1.25	6.59	0.00	2.05	6.67	20.45	4.20	25							
1245	8.06	100	1.50	6.56	0.00	1.26	6.70	20.52	4.22	28							
1250	8.08	100	1.70	6.55	0.00	1.14	6.70	20.48	4.22	29							
1255	8.06	100	1.95	6.55	0.00	0.55	6.70	20.47	4.22	29							
1300	8.05	100	2.15	6.54	0.00	0.37	6.70	20.64	4.22	28							
1305	8.06	100	2.35	6.54	0.00	0.11	6.72	20.67	4.23	29							
1310	8.04	100	2.60	6.57	0.00	0.07	6.72	20.74	4.23	27							
1315	8.08	100	2.85	6.58	0.00	0.12	6.72	20.66	4.23	26							
1320	8.09	100	3.0	6.58	0.00	0.10	6.74	20.61	4.24	27							
Sampling Data																	
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:							
				08/13/2014				1320		3 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.58	Alkalinity (mg/L)	480	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	6.74	Carbon Dioxide (mg/L)	334	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	0.1	Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	20.61	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	27	DTW (ft)	8.09	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	4.24	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☒	1 filter, 1000 ml											
				Hydrogen Acetylene	☒												
Comments: Replaced tubing in well.																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Caryn Moore

Well ID:

PMW-10S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

6.23

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Low flow

Date:

08/12/2014

Time:

1540

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1545	7.87	100	0.40	6.99	1.15	22.1	6.33	23.53	3.99	34	
1550	8.23	100	0.80	6.95	1.59	19.4	4.72	22.86	3.02	43	
1555	8.88	100	1.10	6.91	1.62	19.6	6.09	22.40	3.87	54	
1600	9.07	100	1.25	6.95	1.28	21.8	6.60	24.14	4.17	57	
1605	9.30	100	1.60	6.96	1.20	20.9	6.82	24.12	4.29	59	
1610	9.53	100	2.00	6.98	1.48	19.1	6.96	23.74	4.39	59	
1615	9.50	100	2.40	6.97	1.35	16.9	7.02	23.83	4.46	54	
1620	9.52	100	2.80	6.98	1.28	14.3	7.07	23.76	4.58	56	

Sampling Data

Method: (i.e. low flow)

Low flow

Date:

08/12/2014

Time: (hhmm)

1620

Total Volume of Water Purged:

2.8

(gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
Parameter		Parameter		Parameter		Bottle	Pres.	Method
pH	6.98	Alkalinity (mg/L)	300	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Spec. Cond. (mS/cm)	7.07	Carbon Dioxide (mg/L)	214	MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Turbidity (NTU)	14.3	Ferrous Iron (mg/L)	1	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
DO (mg/L)	1.28	Manganese (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Temp.(°C)	23.76	Hydrogen Sulfide (mg/L)	0	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
ORP (mv)	56	DTW (ft)	9.52	Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
TDS (g/L)	4.58	* NOTE * HACH test kits are only required for MNA analysis wells.		Microbial Census	☒	1filter, 1000 ml		
				Hydrogen Acetylene	☒			

Comments:

Replaced tubing in well

PARSONS

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-11S									
						Manual Entry: 									
														Well Diameter: 2 inches	
												WATER VOLUME CALCULATION			
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot									
Purging Data						Initial Depth to Water (ft): 6.36		Depth to Well Bottom (ft): 							
Method: (i.e. low flow) Low flow		Date: 08/19/2014		Time: 1515 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16					
						4-inch=0.64		6-inch=1.4		8-inch=2.5					
										10-inch=4					
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
1520	7.76	100	0.15	6.95	0.38	8.80	3.84	24.36	2.45	-64					
1525	7.82	100	0.35	6.93	4.74	9.32	3.54	23.34	2.23	-56					
1530	8.00	100	0.50	6.85	4.50	14.8	3.04	23.32	1.95	-42					
1535	8.18	100	0.70	6.81	4.05	12.6	3.15	23.77	2.01	-37					
1540	8.31	100	0.90	6.79	3.67	7.70	3.29	23.71	2.10	-34					
1545	8.48	100	1.10	6.79	3.25	3.57	3.52	23.33	2.27	-33					
1550	8.59	100	1.25	6.77	2.98	2.41	3.73	22.83	2.39	-33					
1555	8.77	100	1.50	6.77	2.62	1.23	3.87	22.76	2.47	-37					
1600	8.90	100	1.75	6.78	2.34	0.99	3.92	22.84	2.51	-33					
1605	9.04	100	1.90	6.78	2.10	1.42	3.97	22.71	2.54	-30					
1610	9.15	100	2.10	6.79	1.87	0.75	4.03	22.66	2.58	-30					
1615	9.30	100	2.25	6.81	1.67	1.13	4.06	22.53	2.60	-31					
1620	9.34	100	2.45	6.81	1.52	1.32	4.07	22.51	2.60	-32					
1625	9.39	190	2.65	6.82	1.33	2.85	4.09	22.49	2.61	-32					
Sampling Data															
Method: (i.e. low flow) Low flow				Date: 08/19/2014		Time: (hhmm) 1625		Total Volume of Water Purged: 2.65 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	6.82	Alkalinity (mg/L)	540	Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	4.09	Carbon Dioxide (mg/L)	382	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	2.85	Ferrous Iron (mg/L)	1.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	1.33	Manganese (mg/L)	0.5	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	22.49	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-32	DTW (ft)	9.39	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	2.61	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060							
				Microbial Census	☐										
				Hydrogen Acetylene	☐										
Comments: 															
PARSONS															

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-7D		Well Diameter: inches									
						Manual Entry:											
						Purging Data Method: (i.e. low flow) low flow Date:08/12/2014Time:0835(hhmm)						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.15			Depth to Well Bottom (ft):														
1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36											
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4											
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
0835	7.37	300	0.39	6.62	3.01	9	2.35	19.50	1.48	-113							
0940	7.46	300	0.66	6.89	0.00	53.9	1.96	19.43	1.23	-131							
0945	7.60	200	0.92	6.74	0.00	25.9	1.44	19.51	1.05	-116							
0950	7.71	200	1.19	6.61	0.00	10.12	1.55	19.57	0.994	-90							
0955	7.71	200	1.39	6.58	0.00	9.3	1.67	19.69	1.04	-96							
1500	7.71	150	1.59	6.56	0.00	8.6	1.71	19.96	1.10	-101							
1505	7.74	150	1.79	6.56	0.00	22.4	1.76	19.99	1.14	-105							
1019	7.76	150	1.99	6.56	0.00	46	1.82	20.03	1.17	-108							
1015	7.77	150	2.19	6.56	0.00	40.8	1.91	19.93	1.22	-114							
1020	7.78	150	2.39	6.57	0.00	35.6	1.96	20.00	1.25	-119							
1025	7.78	150	2.60	6.57	0.00	22.1	2.01	19.98	1.30	-132							
1030	7.79	150	2.78	6.57	0.00	20.3	2.07	19.96	1.34	-131							
1035	7.82	150	2.98	6.58	0.00	24.5	2.13	19.87	1.37	-136							
1040	7.85	150	3.18	6.58	0.00	19.0	2.20	20.00	1.41	-143							
1045	7.87	150	3.38	6.59	0.0	13.3	2.25	19.89	1.45	-149							
1050	7.87	150	3.58	6.59	0.0	18.0	2.3	19.91	1.48	-152							
1055	7.88	150	3.78	6.60	0.0	16.[	2.3	20.04	1.46	-156							
1150	7.89	150	3.98	6.60	0.0	14.5	2.33	20.08	1.49	-160							
Sampling Data																	
Method: (i.e. low flow)					Date:08/12/2014			Time: (hhmm) 1150		Total Volume of Water Purged: 3.98 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.60	Alkalinity (mg/L)	530	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	2.33	Carbon Dioxide (mg/L)	520	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	14.5	Ferrous Iron (mg/L)	3	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	20.08	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-160	DTW (ft)	7.89	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	1.49	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
Comments:				Microbial Census	☒												
				Hydrogen Acetylene	☒												
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																			
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-8D		Well Diameter: inches											
						Manual Entry:													
						Purging Data Method: (i.e. low flow)						Date: 08/21/2014		Time: 0900 (hhmm)		WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
												Initial Depth to Water (ft): 7.82		Depth to Well Bottom (ft):					
1-inch=0.041		1.5-inch=0.092		2-inch=0.16								3-inch=0.36							
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4													
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments								
0905	8.05	200	0.27	7.65	0.00	16.4	2.41	19.77	1.54	-288									
0915	8.50	200	0.53	8.17	0.00	10.65	2.44	19.79	1.56	-316									
0920	8.56	200	0.80	8.38	0.00	8.92	2.46	19.89	1.57	-317									
0930	8.57	200	1.07	8.32	0.00	8.32	2.46	19.90	1.85	-324									
0935	8.58	200	1.34	8.33	0.00	7.97	2.51	19.83	1.60	-323									
0940	8.61	200	1.61	8.32	0.00	0.00	2.52	19.83	1.61	-322									
0945	8.63	200	1.88	8.31	0.00	0.00	2.52	19.59	1.62	-317									
0950	8.63	200	2.15	8.25	0.00	0.00	2.54	19.75	1.63	-306									
0955	8.63	200	2.42	8.13	0.00	0.00	2.59	19.73	1.67	-300									
1000	8.64	200	2.68	7.98	0.00	0.00	2.64	19.72	1.69	-292									
1005	8.64	200	2.95	7.79	0.00	0.00	2.65	19.74	1.70	-236									
1010	8.64	200	3.32	7.61	0.00	0.00	2.66	19.78	1.71	-219									
1015	8.64	200	3.59	7.46	0.00	0.00	2.76	19.81	1.77	-233									
1020	8.65	200	3.86	7.41	0.00	0.00	2.68	21.43	1.72	-244									
1025	8.65	200	4.13	7.39	0.00	6.43	2.72	21.25	1.74	-248									
Sampling Data																			
Method: (i.e. low flow)				Date: 08/21/2014				Time: (hhmm) 1025		Total Volume of Water Purged: 4.13 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET															
pH	7.39	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method											
Spec. Cond. (mS/cm)	2.72	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260											
Turbidity (NTU)	6.43	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP											
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B											
Temp.(°C)	21.25	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified											
ORP (mv)	-248	DTW (ft)	8.65	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F											
TDS (g/L)	1.74	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060											
				Microbial Census	☐														
				Hydrogen Acetylene	☐														
Comments: Water too dark for hach																			
PARSONS																			

LOW FLOW WELL SAMPLING RECORD

Site Name:

Ekonol Facility

Samplers:

Doruk Ucak

Well ID:

INJ-9D

Manual Entry:

Well Diameter:

4

 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.10

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Date:

08/13/2014

Time:

0915

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0920	7.38	300	0.4	6.76	9.47	375	0.304	17.89	0.139	-70	
0925	7.66	300	0.8	7.07	8.52	59.0	0.226	17.73	0.147	-103	
0935	7.78	300	1.2	7.02	11.25	85.1	0.215	17.67	0.140	-115	
0940	7.89	300	1.6	7.16	9.18	336	0.216	17.26	0.141	-128	
0945	8.03	300	2.0	7.23	7.56	556	0.217	16.98	0.141	-144	
0950	8.16	300	2.4	7.30	7.27	737	0.217	16.96	0.141	-152	CLOUDY
0955	8.23	300	2.8	7.26	6.96	893	0.271	16.92	0.188	-128	
1000	8.26	300	3.2	6.93	6.59	263	1.09	16.89	0.699	-136	
1005	8.31	300	3.6	6.67	6.48	10.4	1.06	16.86	0.681	-159	clear
1010	8.40	300	4.0	6.10	5.78	8.5	1.12	16.88	0.716	-182	
1015	8.45	300	4.4	6.70	5.63	7.5	1.14	16.86	0.730	--189	
1020	8.46	300	4.8	6.71	5.25	5.7	1.18	16.87	0.761	-207	
1025	8.51	300	5.2	6.73	4.88	5.5	1.35	16.86	0.863	-235	
1030	8.55	300	5.6	6.78	4.60	5.1	1.38	16.91	0.884	-235	
1035	8.56	200	5.87	6.82	4.40	5.5	1.42	17.01	0.914	-232	
1040	8.55	200	6.14	6.86	4.39	6	1.50	17.33	0.962	-246	
1045	8.55	200	6.41	6.89	3.94	8.3	1.56	17.48	1.01	-263	
1050	8.55	200	6.68	6.90	3.69	8.2	1.60	1.50	1.03	-276	
1055	8.55	200	6.95	6.91	3.41	8.7	1.63	17.61	1.04	-283	
1100	8.55	200	7.22	6.91	3.32	9.0	1.64	17.63	1.05	-294	

Sampling Data

Method: (i.e. low flow)

Date:

08/13/2014

Time: (hhmm)

1100

Total Volume of Water Purged:

7.22

 (gal)

HORIBA

pH	6.91
Spec. Cond. (mS/cm)	1.64
Turbidity (NTU)	9.0
DO (mg/L)	3.32
Temp.(°C)	17.63
ORP (mv)	-294
TDS (g/L)	1.05

HACH TEST KITS

Alkalinity (mg/L)	
Carbon Dioxide (mg/L)	
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	5
DTW (ft)	8.55
* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☒			
Hydrogen Acetylene	☒			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Doruk Ucak Purging Data Method: (i.e. low flow) Date:08/12/2014Time:1415(hhmm)						Well ID: INJ-10D Manual Entry:		Well Diameter: 4 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
						Initial Depth to Water (ft): 5.94			Depth to Well Bottom (ft): 		
1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36					
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4					
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1415	6.22	300	0	8.39	0.0	-71	0.985	22.25	0.626	-309	black
1420	7.09	300	0.4	8.56	0.00	611	0.921	21.27	0.588	-323	
1425	7.96	300	0.8	8.54	0.00	634	0.855	21.30	0.545	-329	
1430	8.39	300	1.2	8.41	0.00	655	0.771	21.30	0.497	-333	
1335	8.61	300	1.6	8.13	0.00	666	0.767	21.37	0.493	-278	
1440	8.81	300	2.0	8.01	0.00	718	0.764	21.40	0.491	-263	
1445	8.93	300	2.4	7.85	0.00	763	0.763	21.44	0.489	-245	
1450	9.03	309	2.6	7.65	0.00	1080	1.22	21.25	0.561	-307	
1455	9.16	300	3.0	7.36	0.00	-67	1.39	21.12	0.903	-328	clear with parts
1500	9.17	300	3.4	7.16	0.00	4.16	1.85	21.03	1.19	-343	clear
1505	9.20	300	3.8	7.16	0.00	4.28	1.89	21.05	1.22	-343	
1510	9.22	300	4.2	7.16	0.00	4.19	1.93	21.03	1.24	-343	
1515	9.22	300	4.6	7.15	0.00	4.12	2.03	21.01	1.30	-343	
1520	9.22	300	5.0	7.12	0.00	4.16	2.07	20.48	1.33	-340	
1525	9.22	300	5.4	7.12	0.00	3.98	2.12	20.45	1.36	-340	
1530	9.22	300	5.8	7.12	0.00	4.02	2.13	20.37	1.36	-340	
1535	9.22	300	6.2	7.12	0.00	4.05	2.15	20.52	1.38	-340	
Sampling Data											
Method: (i.e. low flow)			Date:08/12/2014			Time: (hhmm)1535		Total Volume of Water Purged:6.2 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	7.12	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	2.15	Carbon Dioxide (mg/L)		Select VOCs	✓	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	4.05	Ferrous Iron (mg/L)		MEE	✓	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	✓	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	20.52	Hydrogen Sulfide (mg/L)	5.0	Chloride / Nitrate / Sulfate	✓	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-340	DTW (ft)	9.22	Sulfide	✓	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	1.38	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	✓	2-40 mL amber glass vial	H3PO4	SW9060			
				Microbial Census	✓	400 mL 200 mL					
				Hydrogen Acetylene	✓						
Comments:											
PARSONS											

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-11D							
						Manual Entry:							
										Well Diameter: inches			
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 7.20			Depth to Well Bottom (ft):										
Purging Data Method: (i.e. low flow)		Date: 08/13/2014		Time: (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16			
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
1405	7.51	300	0.4	8.10	1.10	49.3	0.452	22.64	0.284	-208			
1415T	7.76	300	1.2	8.79	0.00	16.2	0.272	20.90	0.178	-251			
1430	7.75	300	2.4	8.66	0.00	13.9	0.286	20.30	0.186	-262			
1435	7.75	300	2.8	8.57	0.00	14.9	0.308	19.76	0.201	-276			
1445	7.75	300	3.6	8.31	0.00	14.1	0.368	20.36	0.240	-283			
1455	7.75	300	4.4	8.31	0.00	14.2	0.470	19.77	0.306	-292			
1505	7.75	300	5.6	7.92	0.00	12.1	0.601	20.16	0.383	-321			
1510	7.75	300	6.0	7.80	0.00	10.9	0.660	20.02	0.424	-326			
1525	7.75	300	7.2	7.48	0.00	8.1	1.09	19.28	0.697	-336			
1530	7.75	300	7.6	7.38	0.00	8.6	1.33	19.94	0.869	-339			
1545	7.76	300	8.8	7.24	0.00	6.7	1.69	19.15	1.08	-344			
1550	7.74	200	9.2	7.19	0.00	6.6	1.78	19.37	1.14	-346			
1555	7.74	200	9.4	7.1E	0.00	6.9	2.00	19.70	1.28	-347	PUMP SHUT		
1620	7.74	200	9.6	5.93	0.00	12.6	2.23	25.61	1.28	-341			
1625	7.46	200	9.8	6.26	0.00	37.8	2.29	21.65	1.46	-340			
1630	7.46	200	1.0	6.29	0.00	38.8	2.26	21.60	1.45	-344			
1635	7.46	200	10.2	6.28	0.00	32.7	2.31	21.5W	1.49	-347			
Sampling Data													
Method: (i.e. low flow)				Date: 08/13/2014		Time: (hhmm) 1635		Total Volume of Water Purged: 10.2 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	6.28	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	2.31	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	32.7	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	21.5	Hydrogen Sulfide (mg/L)	5.0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-347	DTW (ft)	7.46	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	1.49	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☐								
				Hydrogen Acetylene	☐								
Comments:													
PARSONS													

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-12D		Well Diameter: inches									
						Manual Entry:											
						Purging Data Method: (i.e. low flow)						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.31			Depth to Well Bottom (ft):														
Date: 08/14/2014		Time: 0835 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
0830	7.56	200	0.27	6.05	0.00	121	0.209	17.60	0.132	-55	cloudy						
0835	7.71	200	0.53	6.57	0.00	105	0.124	16.89	0.081	-97							
0840	7.78	200	0.80	6.69	0.00	105	0.120	16.92	0.078	-108							
0845	7.83	200	1.07	6.77	0.00	103	0.119	16.91	0.077	-115							
0850	7.86	200	1.34	6.85	0.00	104	0.118	16.90	0.077	-120							
0855	7.89	200	1.61	6.96	0.00	107	0.119	17.14	0.077	-130							
0900	7.91	200	1.88	7.98	0.00	103	0.119	17.28	0.077	-132							
0905	7.92	200	2.15	7.62	0.00	54.4	0.119	17.26	0.077	-133	clear						
0910	7.98	200	2.45	7.21	0.00	25.8	0.119	17.24	0.077	-136							
0915	8.01	200	2.72	7.03	0.00	12.1	0.119	17.22	0.077	-138							
0920	8.01	200	2.99	7.04	0.00	4.3	0.119	17.37	0.078	-141							
0925	8.02	200	3.28	7.05	0.00	2.8	0.122	17.49	0.079	-142							
Sampling Data																	
Method: (i.e. low flow)				Date: 08/14/2014		Time: (hhmm) 0925		Total Volume of Water Purged: 3.28 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	7.05	Alkalinity (mg/L)	120	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	0.122	Carbon Dioxide (mg/L)	100	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	2.8	Ferrous Iron (mg/L)	2.6	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	17.49	Hydrogen Sulfide (mg/L)	1	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-142	DTW (ft)	8.02	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	0.079	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: water at 7.25																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-13D									
						Manual Entry: 									
										Well Diameter: inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 7.21			Depth to Well Bottom (ft): 												
Purging Data		Method: (i.e. low flow) 		Date: 08/14/2014		Time: 1120 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
1120	7.52	300	0.40	7.81	0.00	221	0.926	17.52	0.590	-308					
1125	7.79	300	0.8	7.68	0.00	186	1.45	17.58	0.782	-305					
1130	8.49	200	1.07	7.42	0.00	156	1.68	17.63	1.09	-304					
1135	8.51	150	1.27	7.12	0.00	150	2.62	17.78	1.69	-307					
1140	8.62	150	1.47	7.01	0.00	141	3.01	17.80	1.88	-319					
1145	8.71	150	1.67	6.93	0.00	135	3.33	17.82	2.13	-330					
1150	8.76	150	1.87	6.92	0.00	121	3.37	17.85	2.15	-331					
1155	8.86	150	2.07	6.91	0.00	6.57	3.45	17.81	2.21	-337					
1200	8.95	150	2.27	6.88	0.00	4.32	3.52	18.07	2.25	-340					
1210	8.97	150	2.67	6.83	00.00	6.2	3.53	18.00	2.25	-340					
1225	9.01	150	3.27	6.63	0.00	3.7	3.54	17.87	2.26	-341					
1230	9.01	150	3.47	6.83	0.00	3.6	3.55	17.87	2.28	--341					
1235	9.02	150	3.67	6.86	0.00	4.2	3.55	17.86	2.29	-341					
1240	9.02	150	3.87	6.85	0.00	3.6	3.57	17.66	2.29	-342					
Sampling Data															
Method: (i.e. low flow) 				Date: 08/14/2014				Time: (hhmm) 1240		Total Volume of Water Purged: 3.87 (gal)					
HORIBA				HACH TEST KITS				SAMPLE SET							
pH	6.85			Alkalinity (mg/L)	460			Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	3.57			Carbon Dioxide (mg/L)	400			Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	3.6			Ferrous Iron (mg/L)	0			MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00			Manganese (mg/L)				Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	17.66			Hydrogen Sulfide (mg/L)				Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-342			DTW (ft)	9.02			Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	2.29			* NOTE * HACH test kits are only required for MNA analysis wells.											
Comments: 															
PARSONS															

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: PMW-9D							
						Manual Entry:							
												Well Diameter: 4 inches	
						Purging Data						WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 7.76			Depth to Well Bottom (ft):										
Method: (i.e. low flow)		Date: 08/19/2014		Time: 1010 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16			
						4-inch=0.64		6-inch=1.4		8-inch=2.5			
								10-inch=4					
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
1010	8.03	150	0.20	7.12	2.82	8.12	2.77	18.45	1.77	-157			
1015	8.61	150	0.40	7.45	0.00	6.81	2.70	18.08	1.73	-180			
1020	9.19	150	0.60	7.51	0.00	6.92	2.69	17.87	1.72	-185			
1025	9.42	150	0.80	7.51	0.00	7.21	2.69	17.99	1.71	-171			
1030	9.65	150	1.00	7.51	0.00	6.77	2.68	18.08	1.71	-162			
1035	9.89	150	1.20	7.50	0.00	8.72	2.67	18.26	1.71	-180			
1040	10.10	150	1.40	7.49	0.00	7.72	2.66	18.42	1.70	-179			
1045	10.26	150	1.60	7.48	0.0	7.48	2.66	18.52	1.70	-176			
1050	10.41	150	1.80	7.48	0.00	12.81	2.65	18.52	1.70	-176			
1055	10.55	150	2.00	7.47	0.00	11.45	2.65	18.53	1.70	-174			
1100	10.62	150	2.20	7.46	0.00	13.82	2.65	18.61	1.70	-172			
1105	10.82	150	2.40	7.46	0.00	12.21	2.66	18.27	1.70	-172			
1110	10.97	150	2.60	7.48	0.00	14.72	2.65	18.19	1.70	-173			
1115	11.13	150	2.80	7.47	0.00	15.21	2.65	18.14	1.70	-171			
1120	11.27	150	3.00	7.46	0.00	14.12	2.65	18.30	1.69	-168			
1130	11.30	100	3.20	7.45	0.00	18.41	2.65	18.44	1.70	-167			
1140	11.32	100	3.47	7.40	0.00	2.71	2.64	19.33	1.69	-167			
1150	11.40	100	3.60	7.39	0.00	2.65	2.65	20.11	1.69	-167			
1200	11.41	200	4.13	7.39	0.00	2.11	2.67	20.06	1.72	-165			
1205	11.41	200	4.40	7.39	0.00	2.39	2.68	20.05	1.73	-161			
1215	11.41	200	4.93	7.37	0.00	2.72	2.67	19.86	1.71	-156			
1220	11.41	200	5.20	7.31	0.00	1.80	2.67	19.73	1.71	-157			
1225	11.41	200	5.47	7.31	0.00	1.93	2.78	20.25	1.79	-159			
1230	11.41	200	5.74	6.99	0.00	3.03	3.12	20.37	2.10	-198			
1235	11.41	200	6.01	6.86	0.00	3.27	3.33	20.29	2.15	-337			
1240	11.41	200	6.28	6.80	0.000	3.58	3.53	20.33	2.30	-415			
1245	11.41	200	6.55	6.82	0.00	7.78	3.68	20.38	2.29	-425			
1250	11.41	200	6.79	6.83	0.00	6.69	3.71	20.52	2.38	-417			
1255	11.42	200	7.07	6.84	0.00	5.54	4.18	21.14	2.70	-391			
1300	11.42	200	7.34	6.85	0.00	7.82	4.19	21.03	2.78	-381			
1305	11.42	200	7.61	6.86	0.00	6.85	4.22	20.74	2.67	-369			

Sampling Data

Method: <i>(i.e. low flow)</i>	Date:	Time: <i>(hhmm)</i>	Total Volume of Water Purged:
	08/19/2014	1305	7.61 (gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
pH	6.86	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method
Spec. Cond. (mS/cm)	4.22	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Turbidity (NTU)	6.85	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Temp.(°C)	20.74	Hydrogen Sulfide (mg/L)	4	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
ORP (mv)	-369	DTW (ft)	11.42	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
TDS (g/L)	2.67	<u>* NOTE * HACH test kits are only required for MNA analysis wells.</u>		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
				Microbial Census	☐			
				Hydrogen Acetylene	☐			

Comments:

☐OK



LOW FLOW WELL SAMPLING RECORD

Site Name:

Ekonol Facility

Samplers:

Caryn Moore

Well ID:

PMW-10D

Manual Entry:

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.73

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Low flow

Date:

08/21/2014

Time:

0825

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0830	8.48	200	0.40	6.81	0.00	1114	2.18	20.13	1.39	-156	
0835	8.72	200	0.75	6.85	0.00	1728	2.14	19.87	1.37	-178	
0840	8.90	150	0.90	6.74	0.00	766	2.22	19.74	1.42	-162	
0845	8.97	125	1.10	6.64	0.00	51	2.24	19.81	1.43	-164	
0850	9.05	125	1.25	6.62	0.00	17.8	2.27	20.08	1.46	-176	
0855	9.15	125	1.50	6.61	0.00	18.6	2.31	20.08	1.47	-184	
0900	9.17	125	1.75	6.60	0.00	11.46	2.30	20.14	1.47	-200	
0905	9.18	100	1.95	6.79	0.00	14.7	2.09	20.10	1.33	-214	
0910	9.15	100	2.05	6.73	0.00	12.3	2.24	20.08	1.43	-225	
0915	9.15	100	2.25	6.70	0.00	14.2	2.23	20.28	1.43	-227	
0920	9.14	100	2.40	6.57	0.00	8.51	2.17	20.42	1.39	-235	
0925	9.15	100	2.65	6.63	0.00	10.4	2.14	20.10	1.39	-250	
0930	9.15	100	2.80	6.56	0.00	9.23	2.11	19.89	1.35	-261	
0935	9.15	100	3.00	6.49	0.00	10.08	2.09	19.78	1.34	-271	
0940	9.17	100	3.20	6.51	0.00	9.85	2.10	19.81	1.35	-291	
0945	9.16	100	3.30	6.49	0.00	5.32	2.12	20.15	1.36	-315	
0950	9.17	100	3.55	6.46	0.00	7.41	2.09	20.17	1.34	-341	
0955	9.15	100	3.70	6.43	0.00	3.75	2.11	20.03	1.35	-359	
1000	9.15	100	3.90	6.41	0.00	5.42	2.11	20.00	1.35	-370	
1005	9.16	100	4.15	6.37	0.00	2.47	2.11	20.09	1.36	-380	

Sampling Data

Method: (i.e. low flow)

Low flow

Date:

08/21/2014

Time: (hhmm)

1005

Total Volume of Water Purged:

4.15

 (gal)

HORIBA

pH

6.37

Spec. Cond. (mS/cm)

2.11

Turbidity (NTU)

2.47

DO (mg/L)

0.00

Temp.(°C)

20.09

ORP (mv)

-380

TDS (g/L)

1.36

HACH TEST KITS

Alkalinity (mg/L)

Carbon Dioxide (mg/L)

Ferrous Iron (mg/L)

Manganese (mg/L)

Hydrogen Sulfide (mg/L)

0.7

DTW (ft)

9.16

* NOTE * HACH test kits are only required for MNA analysis wells.

SAMPLE SET

Parameter

Bottle

Pres.

Method

Select VOCs

☒

3-40 mL glass vial

HCl

EPA 8260

MEE

☒

2-40 mL glass vial

HCl

Lab SOP

Dissolved Inorganics

☒

1-250 mL plastic (Field Filtered)

HNO3

SW6010B

Chloride / Nitrate / Sulfate

☒

2-40 mL glass (Field Filtered)

None

lab specified

Sulfide

☒

1-250 mL plastic (Field filtered)

NaOH/Zn Acetate

MS-45000-S2-F

Total Organic Carbon

☒

2-40 mL amber glass vial

H3PO4

SW9060

Microbial Census

☐

Hydrogen Acetylene

☐

Comments:

Water black, no HACH KITS EXCEPT hydrogen sulfide.

PARSONS

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: PMW-11D									
						Manual Entry:									
										Well Diameter: 4 inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 7.07			Depth to Well Bottom (ft):												
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/13/2014		Time: 08:35 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
08:45	7.07	200	0	7.05	0.0	365	1.86	18.03	1.19	-307	Blacksolids				
08:55	7.11	200	0.5	7.13	0.0	3.91	1.84	17.28	1.18	-342					
09:05	7.11	200	1.0	7.09	0.0	3.00	1.86	17.44	1.19	-347					
09:15	7.12	200	1.5	7.06	0.0	0.85	1.90	17.43	1.21	-350	Solids,h2s odor				
09:20	7.12	200	1.7	7.05	0.0	0.65	1.89	17.45	1.20	-351					
09:25	7.12	200	1.9	7.04	0.0	1.05	1.88	17.49	1.20	-352	Same				
09:30	7.12	200	2.1	7.04	0.0	0.95	1.85	17.49	1.20	-354					
09:35	7.12	200	2.3	7.03	0.0	0.65	1.83	17.50	1.20	-355	Same				
09:40	7.12	200	2.5	7.03	0.0	1.56	1.81	17.50	1.19	-356					
09:45	7.12	200	2.7	7.02	0.0	1.24	1.80	17.52	1.18	-356					
Sampling Data															
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:					
Edicated tubing				08/13/2014				09:45		2.7 (gal)					
HORIBA				HACH TEST KITS				SAMPLE SET							
pH	7.02			Alkalinity (mg/L)				Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	1.80			Carbon Dioxide (mg/L)				Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	1.24			Ferrous Iron (mg/L)				MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.0			Manganese (mg/L)				Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	17.52			Hydrogen Sulfide (mg/L)	4			Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-356			DTW (ft)	7.12			Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	1.18			* NOTE * HACH test kits are only required for MNA analysis wells.				Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
								Microbial Census	☒	580ml and 220ml					
								Hydrogen Acetylene	☒						
Comments:															
PARSONS															

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: PMW-12D							
						Manual Entry:							
										Well Diameter: inches			
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 7.75			Depth to Well Bottom (ft):										
Purging Data Method: (i.e. low flow)		Date: 08/18/2014		Time: 0945 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16			
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
0945	8.15	250	0	6.45	0.00	237	3.17	21.95	2.02	-165			
0955	8.55	250	0.34	7.00	0.00	223	3.12	20.58	2.00	-234			
1000	9.01	200	0.68	7.16	0.00	199	3.16	19.36	2.02	-245			
1010	9.19	200	1.02	7.30	0.00	189	3.14	19.47	2.02	-261			
1015	9.24	200	1.36	7.32	0.00	185	3.14	19.25	2.01	-251			
1020	9.28	200	1.70	7.33	0.00	181	3.14	19.15	2.01	-242			
1025	9.29	200	2.04	7.21	0.00	195	3.14	18.99	2.01	-190			
1030	9.31	200	2.38	6.86	0.00	196	3.12	18.77	2.00	-191			
1035	9.35	250	2.72	6.66	0.00	225	3.09	18.38	1.98	-216			
1040	9.36	250	3.06	6.57	0.00	11.9	3.03	18.57	1.93	-248			
1045	9.37	250	3.42	6.51	0.00	12.4	2.95	18.96	1.88	-291			
1050	9.38	250	3.76	6.50	0.00	8.7	2.92	18.93	1.87	-305			
1055	9.39	250	4.10	6.47	0.00	6.3	2.90	18.94	1.85	-333			
1105	9.40	250	4.44	6.42	0.00	6.8	2.80	17.27	1.79	-369			
1110	9.40	250	4.78	6.40	0.00	7.2	2.78	18.12	1.78	-377			
1115	9.40	250	5.12	6.39	0.00	6.3	2.76	19.11	1.76	-388			
1120	9.40	250	5.46	6.37	0.00	4.8	2.73	18.72	1.75	-384			
1125	9.40	250	5.80	6.35	0.00	6.7	2.70	18.53	1.73	-382			
Sampling Data													
Method: (i.e. low flow)				Date: 08/18/2014		Time: (hhmm) 1125		Total Volume of Water Purged: 5.8 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	6.35	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	2.70	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	6.7	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	18.53	Hydrogen Sulfide (mg/L)	4	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-382	DTW (ft)	9.4	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	1.73	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☐								
				Hydrogen Acetylene	☐								
Comments: Water too dark													
PARSONS													

LOW FLOW WELL SAMPLING RECORD

Site Name:

Ekonol Facility

Samplers:

Doruk Ucak

Well ID:

PMW-13D

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.91

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Date:

08/22/2014

Time:

0855

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0855	8.30	200	0.27	6.32	0.00	1816	0.637	19.04	0.408	-142	
0900	8.79	200	0.53	6.60	0.00	1678	0.618	18.55	0.387	-170	
0905	9.00	200	0.80	6.71	0.00	1483	0.782	18.67	0.371	-180	
0910	9.20	200	1.07	6.97	0.00	1264	0.863	18.93	0.358	-188	
0915	9.61	200	1.34	7.04	0.00	945	0.508	18.04	0.325	-194	
0920	9.75	200	1.61	7.06	0.00	926	0.541	18.44	0.347	-196	
0925	9.91	150	1.81	6.97	0.00	863	0.719	19.00	0.466	-192	
0930	9.97	150	2.01	6.54	0.00	729	0.716	19.00	0.720	-155	
0935	10.03	150	2.21	6.33	0.00	21.8	1.44	19.05	0.925	-149	
0940	10.12	150	2.41	6.52	0.00	24.2	1.59	19.67	1.02	-155	
0945	10.21	150	2.61	6.53	0.00	20.2	1.59	20.08	1.01	-164	
0950	10.23	150	2.81	6.58	0.00	11.2	1.58	20.14	1.02	-171	
0955	10.29	150	3.01	6.54	0.00	9.83	1.85	20.26	1.19	-195	
1000	10.34	150	3.22	6.63	0.00	10.2	1.79	20.55	1.15	-207	
1005	10.37	150	3.42	6.58	0.00	9.89	1.90	20.57	1.21	-222	
1010	10.40	150	3.62	6.55	0.00	8.87	1.91	20.84	1.22	-232	
1015	10.44	150	3.82	6.53	0.00	8.93	1.91	20.94	1.22	-239	
1020	10.48	150	4.02	6.46	0.00	7.93	1.98	20.89	1.27	-255	
1025	10.52	150	4.22	6.42	0.00	8.19	2.00	21.04	1.28	-272	
1030	10.55	150	4.42	6.38	0.00	7.19	2.06	20.98	1.32	-289	

Sampling Data

Method: (i.e. low flow)

Date:

08/22/2014

Time: (hhmm)

1030

Total Volume of Water Purged:

4.42

 (gal)

HORIBA

pH	6.38
Spec. Cond. (mS/cm)	2.06
Turbidity (NTU)	7.19
DO (mg/L)	0.00
Temp.(°C)	20.98
ORP (mv)	-289
TDS (g/L)	1.32

HACH TEST KITS

Alkalinity (mg/L)	
Carbon Dioxide (mg/L)	
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	4
DTW (ft)	10.55
* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

Comments:

Water too dark

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Dan Chamberland

Well ID:

PMW-14D

Manual Entry:

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.62

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Geopump

Date:

08/18/2014

Time:

12:55

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12:55	7.62	200	0.0	7.67	1.85	78.1	2.23	29.04	1.45	-180	Gassy
13:05	8.18	200	0.5	7.55	0.0	39.4	3.22	24.00	2.06	-229	Black
13:15	8.30	200	1.0	7.53	0.0	20.2	3.31	25.70	2.11	-234	Sheen
13:25	8.55	200	1.5	7.69	0.0	28.1	3.11	21.90	1.99	-233	In bucket
13:30	8 tt	200	1.7	7.70	0.0	13.5	3.10	22.20	1.99	-232	H2s and
13:35	8.55	200	2.0	7.70	0.0	8.3	3.10	22.43	1.98	-232	Veggie
13:40	8.61	200	2.2	7.68	0.0	5.45	3.11	22.18	1.99	-227	Oil
13:45	8.67	200	2.4	7.66	0.0	3.74	3.12	22.06	1.99	-223	Odor
13:50	8.70	200	2.6	7.62	0.0	4.80	3.12	22.01	1.99	-223	Clear
13:55	8.60	200	2.8	7.45	0.0	3.47	3.13	21.96	2.0	-224	
14:00	8.65	200	3.1	7.42	0.0	4.34	3.11	21.86	1.97	-232	
14:05	8.72	200	3.3	7.37	0.0	6.61	3.07	21.71	1.97	-235	

Sampling Data

Method: (i.e. low flow)

Date:

08/18/2014

Time: (hhmm)

14:05

Total Volume of Water Purged:

3.3

 (gal)

HORIBA

pH	7.37
Spec. Cond. (mS/cm)	3.07
Turbidity (NTU)	6.61
DO (mg/L)	0.0
Temp.(°C)	21.71
ORP (mv)	-235
TDS (g/L)	1.97

HACH TEST KITS

Alkalinity (mg/L)	
Carbon Dioxide (mg/L)	
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	0.4
DTW (ft)	8.72
* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: PMW-15D		Well Diameter: inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Low flow						Date: 08/12/2014		Time: 12:25 (hhmm)		WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot	
												Initial Depth to Water (ft): 7.36		Depth to Well Bottom (ft): 			
1-inch=0.041		1.5-inch=0.092		2-inch=0.16								3-inch=0.36					
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4											
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
12:25	7.36	200	0	7.01	2.92	58.1	2.01	21.52	1.34	-100	Clear,vegetable						
12:35	7.72	200	0.5	7.05	0.0	0.6	2.52	18.85	1.61	-147	Same						
12:45	7.76	200	1.0	7.05	0.0	4.20	2.56	18.52	1.64	-155	Same						
12:55	7.77	200	1.5	7.22	0.0	2.91	2.56	18.58	1.64	-162							
13:00	7.77	200	1.7	7.06	0.0	4.63	2.55	18.75	1.64	-159	Waterturning						
13:05	7.76	200	1.9	7.04	0.0	3.6	2.55	18.98	1.63	-155	Same						
13:10	7.76	200	2.2	7.03	0.0	3.91	2.56	18.90	1.64	-160	Same						
13:15	7.76	200	2.5	7.04	0.0	3.74	2.56	18.95	1.64	-173	Same						
13:20	7.75	200	2.7	7.04	0.0	2.78	2.57	18.98	1.64	-192	Same						
13:25	7.75	200	2.9	7.07	0.0	3.15	2.56	18.92	1.64	-202							
13:30	7.74	200	3.1	7.08	0.0	4.55	2.57	18.89	1.64	-210							
13:35	7.74	200	3.3	7.10	0.0	3.75	2.56	18.97	1.64	-215							
13:40	7.73	200	3.6	7.13	0.0	3.61	2.55	19.00	1.63	-219							
Sampling Data																	
Method: (i.e. low flow) Dedicated tubing				Date: 08/12/2014		Time: (hhmm) 13:40		Total Volume of Water Purged: 3.6 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	7.13	Alkalinity (mg/L)	680	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	2.55	Carbon Dioxide (mg/L)	476	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	3.61	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	19	Hydrogen Sulfide (mg/L)	3	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-219	DTW (ft)		Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	1.63	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
Comments: Sulfide sample bottle broke. Collected replacement sulfide sample at 13:40.				Microbial Census	☒	1 filter at 1000 mL											
				Hydrogen Acetylene	☒	2-40 mL glass vial											
PARSONS																	

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Dan Chamberland

Well ID:

PMW-16D

Manual Entry:

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.25

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Geopump

Date:

08/18/2014

Time:

10:45

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:45	7.25	200	0.0	8.17	0.09	13.6	0.925	22.00	0.594	-239	Gray
10:55	7.75	200	0.5	8.62	0.00	61.9	0.860	20.28	0.565	-283	Odor
11:05	7.76	200	1.0	8.69	0.0	45	0.958	20.04	0.614	-277	Clearing
11:15	7.78	200	1.5	6.46	0.0	9.48	2.67	19.26	1.71	-330	Same
11:20	7.79	200	1.7	6.46	0.0	10.22	2.74	19.09	1.75	-332	Clear
11:25	7.80	200	1.9	6.46	0.0	4.26	2.81	18.92	1.79	-335	Strong odor
11:30	7.81	200	2.3	6.48	0.0	8.80	2.66	18.99	1.74	-336	Same
11:35	7.82	200	2.4	6.50	0.0	6.93	2.57	19.05	1.64	-337	
11:40	7.81	200	2.7	6.53	0.0	5.45	2.52	19.16	1.62	-336	
11:45	7.79	200	3.0	6.55	0.0	6.06	2.48	19.21	1.60	-335	

Sampling Data

Method: (i.e. low flow)

Date:

08/18/2014

Time: (hhmm)

11:45

Total Volume of Water Purged:

3

 (gal)

HORIBA

pH	6.55
Spec. Cond. (mS/cm)	2.48
Turbidity (NTU)	6.06
DO (mg/L)	0.0
Temp.(°C)	19.21
ORP (mv)	-335
TDS (g/L)	1.60

HACH TEST KITS

Alkalinity (mg/L)	580
Carbon Dioxide (mg/L)	840
Ferrous Iron (mg/L)	0
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	5
DTW (ft)	7.79
* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Dan Chamberland

Well ID:

PMW-17D

Manual Entry:

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.36

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Low flow geopump

Date:

08/12/2014

Time:

09:25

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
09:25	7.36	200	0	5.94	0.25	10	0.308	19.47	0.191	22	Clear,vegetable
09:35	7.48	200	0.5	7.30	0.0	3.9	0.222	19.27	0.145	-112	Same
9:45	7.45	200	1.0	7.72	0.0	3.3	0.221	19.48	0.144	-169	Same
09:55	7.46	200	1.5	7.91	0.0	2.8	0.224	19.13	0.146	-197	Same
10:00	7.47	200	1.7	7.96	0.0	3.4	0.225	18.96	0.146	-205	Clear,odor
10:05	7.48	200	1.9	8.04	0.0	4.0	0.226	18.78	0.147	-214	Same
10:10	7.48	200	2.2	8.06	0.0	3.6	0.227	18.90	0.147	-218	Same
10:15	7.48	200	2.4	8.07	0.0	2.97	0.228	19.04	0.148	-222	Same
10:20	7.49	200	2.6	8.07	0.0	2.6	0.230	19.06	0.149	-228	H2s odor
10:25	7.49	200	2.8	8.06	0.0	2.4	0.231	19.06	0.150	-232	Same
10:30	7.50	200	3.1	8.05	0.0	3.2	0.232	19.07	0.150	-236	Same

Sampling Data

Method: (i.e. low flow)

Dedicated tubing

Date:

08/12/2014

Time: (hhmm)

10:30

Total Volume of Water Purged:

3.1

(gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
Parameter		Parameter		Parameter		Bottle	Pres.	Method
pH	8.05	Alkalinity (mg/L)	360	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Spec. Cond. (mS/cm)	0.232	Carbon Dioxide (mg/L)	300	MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Turbidity (NTU)	3.2	Ferrous Iron (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
DO (mg/L)	0.0	Manganese (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Temp.(°C)	19.07	Hydrogen Sulfide (mg/L)	5	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
ORP (mv)	-236	DTW (ft)		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
TDS (g/L)	0.150	* NOTE * HACH test kits are only required for MNA analysis wells.			Microbial Census	☒	1@1l	
				Hydrogen Acetylene	☒			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: PMW-1D					
						Manual Entry:					
									Well Diameter: inches		
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot											
Initial Depth to Water (ft): 6.94			Depth to Well Bottom (ft):								
Purging Data Method: (i.e. low flow)		Date: 08/21/2014		Time: 1205 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16	
						4-inch=0.64		6-inch=1.4		8-inch=2.5	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1205	7.13	150	0.2	7.21	0.00	221	2.09	21.30	1.35	-185	
1210	7.45	150	0.4	7.32	0.00	89.5	2.07	21.12	1.34	-194	
1215	7.74	150	0.8	7.38	0.00	32.5	2.04	20.54	1.32	-216	
1220	7.93	150	1.0	7.45	0.00	16.9	2.03	20.48	1.30	-257	
1225	8.35	150	1.2	7.45	0.00	14.3	2.04	20.37	1.30	-259	
1230	8.72	150	1.4	7.46	0.00	17.8	2.03	20.26	1.30	-260	
1235	9.00	150	1.6	7.48	0.00	12.5	2.01	20.29	1.28	-245	
1240	9.38	150	1.8	7.47	0.00	10.8	1.99	20.02	1.27	-250	
1245	9.55	150	2.0	7.48	0.00	19.8	1.98	19.78	1.28	-259	
1250	9.85	150	2.2	7.46	0.00	12.4	1.95	19.91	1.24	-271	
1255	10.12	150	2.4	7.44	0.00	13.7	1.96	19.55	1.25	-292	
1300	10.38	150	2.6	7.38	0.00	15.8	1.94	19.39	1.24	-254	
1306	10.75	150	2.8	7.26	0.00	14.3	1.96	19.01	1.26	-217	
1310	10.91	150	3.0	7.24	0.00	16.8	1.98	18.41	1.27	-198	
1315	11.28	150	3.2	7.18	0.00	25.7	1.94	18.38	1.24	-187	
1320	11.62	150	3.4	7.05	0.00	26.8	1.91	18.37	1.22	-176	
1325	11.92	150	3.6	6.90	0.00	27.8	1.87	18.34	1.20	-170	
1330	11.15	150	3.8	6.80	0.00	26.8	1.84	18.05	1.18	-164	
1335	12.41	150	4.0	6.74	0.00	26.9	1.84	18.17	1.18	-163	
1340	12.58	150	4.2	6.71	0.00	18.9	1.83	18.22	1.17	-162	
1345	12.76	150	4.4	6.63	0.00	16.4	1.79	18.86	1.14	-158	
1350	12.96	150	4.6	6.60	0.00	16.9	1.79	18.24	1.14	-157	
1355	13.02	150	4.8	6.56	.00	12.6	1.79	17.95	1.15	-158	
1400	13.42	150	5.0	6.61	0.00	11.8	1.93	18.22	1.23	-159	
1405	13.91	150	5.2	6.66	0.00	11.8	2.01	18.89	1.30	-160	
1410	14.09	150	5.4	7.13	0.00	10.0	2.29	18.79	1.47	-204	
1415	14.50	150	5.6	7.21	0.00	15.8	2.26	18.87	1.45	-204	
1420	14.62	150	5.8	7.18	0.00	26.9	2.17	18.80	1.40	-200	
1425	14.71	150	6.0	7.15	0.00	25.2	2.10	18.71	1.34	-188	
1430	14.91	150	6.2	6.96	0.00	27.6	1.91	18.77	1.17	-168	
1435	15.26	150	6.4	na	na	na	na	na	1.17	-168	Water stopped
1510	15.42	150	6.4	7.09	0.90	940	1.85	20.49	1.18	-174	
1515	15.72	150	6.6	7.14	0.00	920	1.83	20.40	1.15	-182	
1520	15.91	150	6.8	7.16	0.00	780	1.83	19.23	1.17	-185	
1525	16.37	150	7.00	7.13	0.00	760	1.79	19.42	1.19	-183	
1530	16.46	100	7.13	7.11	0.00	740	1.78	20.06	1.14	-181	
1535	16.55	100	7.27	7.06	0.00	620	1.77	20.42	1.14	-173	
1540	16.71	100	7.40	7.07	0.00	680	1.77	20.72	1.13	-173	

Sampling Data

Method: <i>(i.e. low flow)</i>	Date:	Time: <i>(hhmm)</i>	Total Volume of Water Purged:
	08/21/2014	1540	7.4 (gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
pH	7.07	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method
Spec. Cond. (mS/cm)	1.77	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Turbidity (NTU)	680	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Temp.(°C)	20.72	Hydrogen Sulfide (mg/L)	0.2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
ORP (mv)	-173	DTW (ft)	16.71	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
TDS (g/L)	1.13	<u>* NOTE * HACH test kits are only required for MNA analysis wells.</u>		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
				Microbial Census	☐			
				Hydrogen Acetylene	☐			
Comments: water too dark								



LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-01		Well Diameter: inches									
						Manual Entry:											
						Purging Data Method: (i.e. low flow)						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 8.12			Depth to Well Bottom (ft):														
Date: 08/22/2014		Time: 1230 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1230	8.61	200	0.27	6.78	1.06	2048	1.65	25.52	1.06	-101							
1240	9.21	2000	0.53	6.70	0.00	-28	1.54	23.26	0.993	-115							
1245	9.38	200	0.80	6.80	0.00	-36	1.64	22.83	1.02	-138							
1250	9.51	200	1.07	6.87	0.00	784	1.79	22.24	1.15	-162							
1300	9.77	200	1.34	6.40	0.00	653	2.17	20.53	1.37	-274							
1305	9.86	200	1.61	6.94	0.00	521	2.33	19.33	1.50	-353							
1310	9.90	200	1.86	6.35	0.00	149	2.43	19.59	1.56	-395							
1315	9.97	200	2.13	6.37	0.00	93.7	2.50	19.37	1.60	-407							
1320	10.01	200	2.30	6.38	0.00	89.4	2.60	19.22	1.67	-428							
1325	10.03	200	2.57	6.39	0.00	80.6	2.73	18.90	1.73	-444							
1330	10.04	200	2.84	6.40	0.00	55.4	2.75	19.98	1.74	-450							
1335	10.07	200	3.11	6.41	0.00	20.1	2.76	19.07	1.76	-455							
1340	10.10	200	3.38	6.43	0.00	21.3	2.84	19.05	1.82	-457							
1345	10.14	200	3.64	6.44	0.00	20.8	2.89	18.94	1.84	-456							
1350	11.17	200	3.91	6.45	0.00	16.9	2.96	18.34	1.88	-453							
1355	11.20	200	4.18	6.45	0.00	15.8	3.03	18.37	1.93	-448							
1400	11.23	200	4.35	6.45	0.00	13.8	3.09	18.43	1.98	-441							
1405	11.24	200	4.62	6.48	0.00	12.8	3.12	18.26	2.00	-431							
Sampling Data																	
Method: (i.e. low flow)				Date: 08/22/2014		Time: (hhmm) 1405		Total Volume of Water Purged: 4.62 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.48	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	3.12	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	12.8	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	18.26	Hydrogen Sulfide (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-431	DTW (ft)	11.24	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	2.00	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments:																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: PMW-2D							
						Manual Entry: 		Well Diameter: inches					
						WATER VOLUME CALCULATION							
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot							
Purging Data						Initial Depth to Water (ft): 7.35		Depth to Well Bottom (ft): 					
						Method: (i.e. low flow) 		Date: 08/15/2014		Time: 0850 (hhmm)		1-inch=0.041	
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
0850	8.04	150	0.20	6.22	0.00	92.4	3.81	18.30	2.43	-317			
0855	8.19	150	0.40	6.32	0.00	147	3.86	17.87	2.48	-329			
0900	9.87	150	0.60	6.34	0.00	104	3.91	17.81	2.51	-344			
0905	10.46	150	0.80	6.36	0.00	94	3.97	17.77	2.54	-355			
0910	11.03	150	1.2	6.36	0.00	53	4.01	17.76	2.57	-356			
0915	11.36	150	1.4	6.36	0.00	23	4.02	17.72	2.57	-357			
0920	11.76	150	1.6	6.36	0.00	24	3.99	17.69	2.56	-356			
0925	12.00	150	1.8	6.36	0.00	6.35	3.98	17.68	2.55	-356			
0930	12.32	150	2.0	6.36	0.00	4.13	3.97	17.54	2.54	-357			
0935	12.56	150	2.4	6.36	0.00	4.6	3.94	17.56	2.52	-356			
0940	13.65	300	2.8	6.35	0.00	6.7	3.90	17.07	2.50	-356			
0945	14.49	300	3.2	6.35	0.00	6.9	3.88	16.66	2.48	-356			
0950	14.66	150	3.4	6.35	0.00	5.3	3.86	17.23	2.46	-353			
0955	14.74	150	3.6	6.35	0.00	4.1	3.85	17.40	2.46	-351			
1000	14.96	150	3.8	6.34	0.00	6.3	3.81	17.61	2.44	-353			
1005	15.12	150	4.00	6.33	0.00	5.7	3.79	17.79	2.43	-352			
Sampling Data													
Method: (i.e. low flow) 				Date: 08/15/2014				Time: (hhmm) 1005		Total Volume of Water Purged: 4 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	6.33	Alkalinity (mg/L)	600	Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	3.79	Carbon Dioxide (mg/L)	500	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	5.7	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	17.79	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-352	DTW (ft)	15.12	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	2.43	* NOTE * HACH test kits are only required for MNA analysis wells.							Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
				Microbial Census	☒								
				Hydrogen Acetylene	☐								
Comments: 													
PARSONS													

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-3D									
						Manual Entry: 									
												Well Diameter: 2 inches			
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 7.38		Depth to Well Bottom (ft): 													
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/22/2014		Time: 0830 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
0835	9.11	100	0.10	6.82	0.00	3.55	4.01	21.15	2.57	-330					
0840	9.67	100	0.25	6.76	0.00	2.36	4.00	20.93	2.46	-330					
0845	10.15	100	0.45	6.75	0.00	2.37	3.98	20.88	2.55	-330					
0850	10.71	100	0.60	6.76	0.00	2.22	3.95	20.82	2.53	-332					
0855	11.04	100	0.75	6.78	0.00	2.00	3.96	20.57	2.53	-333					
0900	11.37	100	0.90	6.79	0.00	1.36	3.97	20.51	2.54	-335					
0905	11.65	100	1.15	6.81	0.00	1.42	3.97	20.53	2.54	-338					
0910	11.75	100	1.30	6.81	0.00	2.76	3.96	20.43	2.53	-339					
0915	11.85	100	1.45	6.80	0.00	2.31	3.93	20.24	2.52	-339					
0920	11.94	100	1.60	6.78	0.00	2.46	3.90	20.31	2.49	-339					
0925	12.02	100	1.75	6.76	0.00	1.92	3.86	20.29	2.47	-339					
0930	12.08	100	1.90	6.73	0.00	2.44	3.82	20.25	2.45	-338					
0935	12.12	100	2.05	6.71	0.00	2.19	3.80	20.40	2.43	-338					
0940	12.14	100	2.20	6.68	0.00	2.63	3.80	20.28	2.43	-337					
0945	12.15	100	2.35	6.66	0.00	1.84	3.79	20.39	2.42	-337					
0950	12.15	100	2.55	6.65	0.00	1.62	3.76	20.32	2.41	-337					
0955	12.16	100	2.70	6.62	0.00	2.61	3.74	20.40	2.40	-336					
Sampling Data															
Method: (i.e. low flow) Low flow				Date: 08/22/2014				Time: (hhmm) 0950		Total Volume of Water Purged: 2.55 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	6.65	Alkalinity (mg/L)	700	Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	3.76	Carbon Dioxide (mg/L)	450	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	1.62	Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	20.32	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-337	DTW (ft)	12.15	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	2.41	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060							
				Microbial Census	☐										
				Hydrogen Acetylene	☐										
Comments: Water turned orange for manganese test.															
PARSONS															

LOW FLOW WELL SAMPLING RECORD													
Site Name: Ekonol Facility Samplers: Dan Chamberland						Well ID: PMW-4D							
						Manual Entry: 							
										Well Diameter: 2 inches			
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 7.15			Depth to Well Bottom (ft): 										
Purging Data		Method: (i.e. low flow)		Date:		Time:							
Geopump				08/21/2014		14:50		1-inch=0.041		1.5-inch=0.092			
						(hhmm)		4-inch=0.64		6-inch=1.4			
								2-inch=0.16		3-inch=0.36			
								8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
14:50	7.15	200	0.0	6.91	0.0	12.18	4.81	18.64	3.07	-349	Clear		
15:00	9.40	200	0.5	6.93	0.0	6.16	4.67	18.32	2.98	-355	Black		
15:10	9.48	200	1.0	6.81	0.0	2.12	4.46	18.30	2.85	-351	Solids		
15:20	9.48	200	1.5	6.68	0.0	2.25	4.13	18.07	2.64	-343	Strong		
15:25	9.46	200	1.7	6.68	0.0	3.08	4.10	18.10	2.62	-340	H2S		
15:30	9.45	200	1.9	6.69	0.0	5.55	4.07	18.13	2.60	-337	Odor		
15:35	9.45	200	2.2	6.68	0.0	3.74	4.06	18.04	2.60	-338	Same		
15:40	9.44	200	2.4	6.74	0.0	2.49	4.09	17.79	2.62	-339	Same		
15:45	9.43	200	2.6	6.73	0.0	2.90	4.06	18.09	2.60	-341	Same		
15:50	9.44	200	2.8	6.75	0.0	3.86	4.05	18.10	2.60	-342	Same		
15:55	9.44	200	3.1	6.78	0.0	4.04	4.04	18.12	2.59	-344	Same		
16:00	9.44	200	3.4	6.83	0.0	1.49	4.04	18.05	2.59	-347			
Sampling Data													
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:			
				08/21/2014				16:00		3.4 (gal)			
HORIBA				HACH TEST KITS				SAMPLE SET					
pH	6.83			Alkalinity (mg/L)	900			Parameter		Bottle	Pres.	Method	
Spec. Cond. (mS/cm)	4.04			Carbon Dioxide (mg/L)	562			Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260	
Turbidity (NTU)	1.49			Ferrous Iron (mg/L)	0			MEE	☒	2-40 mL glass vial	HCl	Lab SOP	
DO (mg/L)	0.0			Manganese (mg/L)	0			Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B	
Temp.(°C)	18.05			Hydrogen Sulfide (mg/L)	5			Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified	
ORP (mv)	-347			DTW (ft)	9.44			Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F	
TDS (g/L)	2.59			* NOTE * HACH test kits are only required for MNA analysis wells.				Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060	
								Microbial Census	☐				
								Hydrogen Acetylene	☐				
Comments:													
PARSONS													

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: PMW-6D							
						Manual Entry: 							
												Well Diameter: 2 inches	
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 6.39		Depth to Well Bottom (ft): 											
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/14/2014		Time: 1145 (hhmm)		1-inch=0.041		1.5-inch=0.092			
								4-inch=0.64		6-inch=1.4			
								8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
1150	8.22	100	0.25	9.09	0.00	12.0	5.27	19.39	3.30	-379			
1155	9.32	100	0.50	9.04	0.00	8.44	4.92	19.18	3.12	-378			
1200	10.42	100	0.75	8.90	0.00	4.78	4.33	18.94	2.77	-373			
1205	11.30	100	0.90	8.79	0.00	4.61	4.09	18.88	2.60	-373			
1210	12.29	100	1.15	8.64	0.00	4.47	3.76	18.81	2.40	-375			
1215	13.31	100	1.30	8.44	0.00	4.34	3.49	18.71	2.22	-375			
1220	14.29	100	1.50	8.15	0.00	4.78	3.25	18.55	2.07	-372			
1225	15.24	100	1.75	7.81	0.00	5.57	3.12	18.51	1.99	-369			
1230	16.28	100	2.00	7.57	0.00	9.97	3.04	18.55	1.94	-366			
1235	17.43	100	2.10	7.42	0.00	8.47	2.86	18.24	1.83	-366			
1240	18.15	100	2.25	7.32	0.00	8.93	2.80	18.21	1.79	-365			
1245	19.09	100	2.50	7.26	0.00	7.99	2.74	18.12	1.75	-364			
1250	20.09	100	2.75	7.23	0.00	8.03	2.72	18.02	1.74	-361			
1255	20.63	100	3.00	7.21	0.00	8.26	2.77	18.09	1.78	-361			
1300	21.41	100	3.25	7.23	0.00	8.92	2.80	18.17	1.79	-361			
1305	22.18	100	3.50	7.25	0.00	8.61	2.86	18.20	1.83	-360			
1310	22.91	100	3.75	7.28	0.00	11.7	3.03	18.15	1.94	-358			
1315	23.42	100	4.00	7.32	0.00	10.4	3.10	18.11	1.99	-358			
Sampling Data													
Method: (i.e. low flow) Low flow				Date: 08/19/2014		Time: (hhmm) 0830		Total Volume of Water Purged: 4 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET									
pH		Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)		Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)		Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)		Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)		DTW (ft)		Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☒	1 filter 1000 ml							
				Hydrogen Acetylene	☐								
Comments: Water in man box. Pumped well dry at 1317, 4.15 gallons. Sampled the next day at 0830. HACH sample water turned black.													
PARSONS													

LOW FLOW WELL SAMPLING RECORD

Site Name:

Ekonomi Facility

Well ID:

RMW-4D

Manual Entry:

Well Diameter: 2 inches

Samplers:

Dan Chamberland

WATER VOLUME CALCULATION

$$= (\text{Total Depth of Well} - \text{Depth To Water}) \times \text{Casing Volume per Foot}$$

Initial Depth to Water (ft):

7.9

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Date:

Time:

Geopump

08/21/2014

12:35

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12:35	7.90	200	0	7.37	0.75	20.1	7.93	19.72	5.05	-340	Clear
12:45	10.17	200	0.5	7.18	0.0	12.7	2.19	18.83	1.39	-362	No
12:55	10.92	200	1.0	6.90	0.0	6.37	1.08	18.30	0.687	-346	Odor
13:05	11.15	200	1.5	7.02	0.0	2.16	1.13	18.02	0.728	-352	Same
13:10	11.19	200	1.7	6.99	0.0	4.14	1.27	17.99	0.901	-351	Same
13:15	11.20	200	1.9	6.94	0.0	3.89	1.55	17.96	1.01	-350	H2S
13:20	11.21	200	2.2	6.88	0.0	1.25	1.83	17.75	1.20	-348	Odor
13:25	11.22	200	2.4	6.81	0.0	2.60	2.03	17.63	1.31	-343	Clear
13:30	11.24	200	2.6	6.74	0.0	3.12	2.32	17.50	1.43	-338	Same
13:35	11.25	200	2.8	6.83	0.0	1.33	2.41	17.47	1.54	-343	Same
13:40	11.26	200	3.1	6.80	0.0	0.87	2.49	17.56	1.60	-340	Same
13:45	11.25	200	3.3	6.76	0.0	1.99	2.66	17.48	1.69	-338	Strong
13:50	11.26	200	3.5	6.74	0.0	2.13	2.72	17.49	1.76	-336	Odor
13:55	11.26	200	3.7	6.77	0.0	2.38	2.78	17.50	1.79	-338	

Sampling DataMethod: (*i.e. low flow*)

Date:

08/21/2014

Time: (*hhmm*)

13:55

Total Volume of Water Purged:

3.7 (gal)

HORIBA

pH	6.77
Spec. Cond. (mS/cm)	2.78
Turbidity (NTU)	2.38
DO (mg/L)	0.0
Temp.(°C)	17.50
ORP (mv)	-338
TDS (g/L)	1.79

HACH TEST KITS

Alkalinity (mg/L)	580
Carbon Dioxide (mg/L)	510
Ferrous Iron (mg/L)	0
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	5
DTW (ft)	11.26
<u>* NOTE * HACH test kits are only required for MNA analysis wells.</u>	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD																	
Site Name: Ekonol Facility Samplers: Select...						Well ID: PMW-7D			Well Diameter: 2 inches								
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.8			Depth to Well Bottom (ft): 														
Date: 08/21/2014						Time: 10:15		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36			
						(hhmm)		4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
10:15	7.80	200	0	7.66	3.27	16.0	4.85	21.90	3.16	-325	Clear						
10:25	8.47	200	0.5	7.81	0.0	3.94	5.84	19.32	3.69	-342	Veggie						
10:35	8.50	200	1.0	7.24	0.0	2.95	5.68	19.40	3.58	-346	Odor						
10:45	8.50	200	1.5	7.01	0.0	2.17	5.38	18.86	3.39	-343	Same						
10:50	8.50	200	1.7	6.97	0.0	1.86	5.27	18.77	3.35	-341	H2S odor						
10:55	8.51	200	1.9	6.94	0.0	1.03	5.19	18.66	3.26	-340	Same						
11:00	8.51	200	2.2	6.89	0.0	2.73	5.02	18.92	3.16	-340	Same						
11:05	8.53	200	2.4	6.86	0.0	0.53	5.01	18.39	3.19	-339	Same						
11:10	8.53	200	2.6	6.84	0.0	0.99	4.98	18.50	3.14	-338	Same						
11:15	8.54	200	2.9	6.82	0.0	1.29	4.96	18.62	3.08	-337	Same						
Sampling Data																	
Method: (i.e. low flow)					Date: 08/21/2014			Time: (hhmm) 11:15		Total Volume of Water Purged: 2.9 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.82	Alkalinity (mg/L)	740	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	4.96	Carbon Dioxide (mg/L)	562	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	1.29	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	18.62	Hydrogen Sulfide (mg/L)	3	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-337	DTW (ft)	8.54	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	3.08	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments:																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-7D							
						Manual Entry: 							
										Well Diameter: 4 inches			
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 7.8			Depth to Well Bottom (ft): 										
Purging Data Method: (i.e. low flow) Geopump		Date: 08/18/2014		Time: 15:05 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16			
						4-inch=0.64		6-inch=1.4		8-inch=2.5			
										3-inch=0.36			
										10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
15:05	7.80	200	0.0	7.42	3.94	56.1	1.43	30.32	1.45	-163	Black		
15:15	7.89	200	0.5	7.81	0.0	16.4	3.26	22.00	2.09	-392	Solids		
15:25	7.91	200	1.0	7.63	0.0	13.6	3.34	21.19	2.13	-393	H2S		
15:35	7.91	200	1.5	7.30	0.0	9.06	3.10	20.46	1.98	-380	Odor		
15:40	7.90	200	1.7	7.13	0.0	9.34	3.09	20.87	1.98	-375			
15:45	7.88	200	1.9	6.94	0.0	8.76	3.08	21.34	1.97	-371			
15:50	7.88	200	2.1	6.94	0.0	5.45	3.08	20.46	1.97	-369			
15:55	7.89	200	2.4	6.93	0.0	4.82	3.07	20.02	1.96	-367			
14:00	7.90	200	2.6	6.89	0.0	4.90	3.03	20.11	1.94	-363			
Sampling Data													
Method: (i.e. low flow)				Date:				Time: (hhmm)		Total Volume of Water Purged:			
				08/18/2014				14:00		2.6 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	6.89	Alkalinity (mg/L)	860	Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	3.03	Carbon Dioxide (mg/L)	562	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	4.9	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	20.11	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-363	DTW (ft)	7.9	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	1.94	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☐								
				Hydrogen Acetylene	☐								
Comments:													
PARSONS													

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Caryn Moore Purging Data Method: (i.e. low flow) Low flow						Well ID: MW-1S Manual Entry: 		Well Diameter: 2 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
						Initial Depth to Water (ft): 6.23		Depth to Well Bottom (ft): 			
Date: 08/15/2014		Time: 1035 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1040	5.75	100	0.25	8.29	0.00	8.91	1.79	17.81	1.13	-244	
1045	5.74	100	0.50	8.29	0.00	3.37	1.26	17.62	0.796	-248	
1050	5.74	100	0.75	8.24	0.00	1.94	1.08	17.59	0.693	-249	
1055	5.75	100	1.00	8.18	0.00	0.35	0.876	17.90	0.558	-250	
1100	5.74	100	1.25	8.16	0.00	1.29	0.836	18.04	0.533	-248	
1105	5.73	100	1.50	8.10	0.00	0.84	0.764	18.30	0.487	-245	
1110	5.74	100	1.75	8.00	0.00	1.12	0.727	18.54	0.465	-235	
1115	5.74	100	2.00	7.91	0.00	1.08	0.735	18.68	0.471	-232	
1120	5.74	100	2.25	7.87	0.00	0.93	0.749	18.61	0.481	-229	
1125	5.74	100	2.50	7.84	0.00	0.32	0.750	18.63	0.499	-229	
1130	5.74	100	2.75	7.87	0.00	0.65	0.748	18.70	0.523	-226	
Sampling Data											
Method: (i.e. low flow) 				Date: 08/15/2014		Time: (hhmm) 1130		Total Volume of Water Purged: 2.75 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	7.87	Alkalinity (mg/L)	200	Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	0.748	Carbon Dioxide (mg/L)	78	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	0.65	Ferrous Iron (mg/L)	1.8	MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	18.70	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-226	DTW (ft)	5.74	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	0.523	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
				Microbial Census	☐						
				Hydrogen Acetylene	☐						
Comments: 											
PARSONS											

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-2S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 3.05			Depth to Well Bottom (ft): 														
Date: 08/18/2014		Time: 08:35				1-inch=0.041		1.5-inch=0.092		2-inch=0.16							
		(hhmm)				4-inch=0.64		6-inch=1.4		8-inch=2.5							
								10-inch=4									
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
08:35	3.05	200	0.0	6.70	0.0	1.4	4.67	19.96	2.99	-95	Clear						
08:45	7.70	200	0.5	6.91	0.0	0.67	3.02	20.64	1.85	-122	Slightodor						
08:55	7.65	200	1.0	6.88	0.0	1.14	2.09	21.20	1.36	-90	Same						
09:05	7.66	200	1.5	6.90	0.0	1.12	3.82	21.10	2.46	-70	Same						
09:10	7.67	200	1.7	6.92	0.0	0.99	4.22	21.25	2.65	-63							
09:15	7.71	200	1.9	6.95	0.0	0.96	4.41	21.31	2.82	-58							
09:20	7.73	200	2.2	6.93	0.0	2.59	4.46	21.31	2.87	-55							
09:25	7.75	200	2.4	6.92	0.0	3.74	4.53	21.32	2.90	-51							
09:30	7.78	200	2.7	6.93	0.0	3.26	4.56	21.26	2.92	-56							
Sampling Data																	
Method: (i.e. low flow) Dedicated tubing				Date: 08/18/2014				Time: (hhmm) 09:30		Total Volume of Water Purged: 2.7 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.93	Alkalinity (mg/L)	440	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	4.56	Carbon Dioxide (mg/L)	254	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	3.26	Ferrous Iron (mg/L)	3.6	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	21.26	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-56	DTW (ft)	7.78	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	2.92	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☒	1 filter											
				Hydrogen Acetylene	☐												
Comments: 																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: MW-3S							
						Manual Entry:		Well Diameter: inches					
						WATER VOLUME CALCULATION							
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot							
Purging Data						Initial Depth to Water (ft): 5.1		Depth to Well Bottom (ft):					
						Method: (i.e. low flow)		Date: 08/15/2014		Time: 1215 (hhmm)		1-inch=0.041	
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
1230	7.61	150	0.20	7.07	0.00	22.8	16.1	21.31	9.98	-216			
1235	7.79	150	0.40	7.04	0.00	13.1	15.7	21.47	9.45	-209			
1240	8.00	150	0.60	6.98	0.00	6.8	14.8	21.71	9.17	-207			
1245	8.21	150	0.80	6.95	0.00	4.7	13.7	21.63	8.45	-204			
1255	8.55	150	1.00	6.91	0.00	5.9	13.0	21.85	8.07	-202			
1305	8.81	100	1.13	6.87	0.00	3.4	13.6	22.05	8.44	-198			
1310	9.04	100	1.26	6.88	0.00	3.8	13.7	21.81	8.49	-201			
1315	9.28	100	1.40	6.89	0.00	4.6	14.8	21.69	8.94	-202			
1325	9.59	100	1.53	6.91	0.00	8.7	15.4	21.55	9.23	-203			
1335	10.16	100	1.66	6.97	0.00	6.6	17.5	21.34	10.3	-206			
1345	10.59	100	1.80	7.07	0.00	6.4	18.7	21.48	11.6	-207			
1350	10.65	100	1.93	7.10	0.00	6.1	19.2	21.54	11.9	-207	Dry		
Sampling Data													
Method: (i.e. low flow)				Date: 08/19/2014		Time: (hhmm) 1350		Total Volume of Water Purged: 1.93 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET									
pH		Alkalinity (mg/L)	200	Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	140	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)		Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)		Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)		Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)		DTW (ft)	10.65	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☐								
				Hydrogen Acetylene	☐								
Comments: Purged dry again on 8/18.													
PARSONS													

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: MW-6S Manual Entry: 		Well Diameter: inches									
						Purging Data Method: (i.e. low flow) 						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.75			Depth to Well Bottom (ft): 														
Date: 08/20/2014		Time: 1450 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1450	8.20	230	0.30	7.41	0.00	1.81	7.15	23.89	4.57	-144							
1500	8.52	230	0.60	7.17	0.00	0.72	6.85	23.24	4.30	-124							
1505	8.74	230	0.90	7.15	0.00	0.92	6.50	23.36	4.09	-121							
1510	8.91	230	1.20	7.13	0.00	0.87	6.08	23.82	3.82	-119							
1520	9.18	230	1.50	7.10	0.00	0.81	5.83	24.05	3.67	-115							
1525	9.50	230	1.80	7.09	0.00	0.64	5.74	24.22	3.60	-113							
1540	9.78	230	2.10	7.14	0.00	0.73	3.12	21.86	2.12	-100							
1545	9.93	230	2.40	7.16	0.00	0.59	2.77	20.95	1.78	-97							
1550	10.20	230	2.70	7.09	0.00	0.65	1.97	20.88	1.98	-93							
1555	10.61	100	2.83	7.06	0.00	0.27	3.25	20.80	2.09	-90							
1600	10.71	100	2.96	7.04	0.00	0.22	3.43	21.32	2.20	-90							
1605	10.82	100	3.09	7.03	0.00	0.08	3.53	21.43	2.26	-89							
1610	10.91	100	3.22	7.03	0.00	0.17	3.60	21.53	2.30	-88							
1615	11.01	100	3.45	7.02	0.00	0.22	3.73	21.57	2.39	-87							
1620	11.25	100	3.58	7.04	0.00	0.44	3.92	21.63	2.55	-88							
1625	11.40	100	3.71	7.05	0.00	1.09	4.07	21.76	2.61	-89							
1630	11.50	100	3.84	7.05	0.00	3.41	4.25	21.71	2.73	-87							
1635	12.60	100	3.97	7.04	0.00	2.82	4.36	21.67	2.80	-86							
1640	13.60	100	4.10	7.04	0.00	27.8	4.44	21.56	2.99	-87	Running dry.						
Sampling Data																	
Method: (i.e. low flow) 				Date: 08/21/2014		Time: (hhmm) 0810		Total Volume of Water Purged: (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH		Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)		Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)		Manganese (mg/L)		Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)		Hydrogen Sulfide (mg/L)	0.3	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)		DTW (ft)		Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060									
Comments: Dry. Water too dark.				Microbial Census	☐												
				Hydrogen Acetylene	☐												
PARSONS																	

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Doruk Ucak

Well ID:

MW-10S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

6.11

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Date:

08/18/2014

Time:

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1400	6.40	300	0.40	7.20	1.55	22.6	2.32	23.33	1.48	-177	
1405	6.40	300	0.80	7.01	0.00	13.8	2.41	19.76	1.54	-185	
1415	6.40	300	1.20	6.93	0.00	17.6	1.94	18.73	1.24	-179	
1420	6.40	300	1.40	6.92	0.00	15.8	1.87	18.58	1.18	-174	
1425	6.40	300	1.80	6.92	0.00	14.3	1.79	18.41	1.14	-171	
1430	6.40	300	2.20	6.93	0.00	8.9	1.70	18.31	1.09	-171	
1435	6.40	300	2.60	6.95	0.00	9.3	1.65	18.22	1.05	-171	
1440	6.40	300	3.0	6.95	0.00	8.2	1.61	18.12	1.03	-171	
1445	6.40	300	3.4	6.97	0.00	10.3	1.56	18.47	0.998	-170	
1450	6.40	300	3.8	6.97	0.00	9.5	1.55	18.77	0.987	-168	

Sampling Data

Method: (i.e. low flow)

Date:

08/18/2014

Time: (hhmm)

1450

Total Volume of Water Purged:

3.8

 (gal)

HORIBA

pH	6.97
Spec. Cond. (mS/cm)	1.55
Turbidity (NTU)	9.5
DO (mg/L)	0.00
Temp.(°C)	18.77
ORP (mv)	-168
TDS (g/L)	0.987

HACH TEST KITS

Alkalinity (mg/L)	240
Carbon Dioxide (mg/L)	200
Ferrous Iron (mg/L)	2.2
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0
DTW (ft)	6.4
* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: MW-11S					
						Manual Entry: 		Well Diameter: 2 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data						Initial Depth to Water (ft): 8.25		Depth to Well Bottom (ft): 			
Method: (i.e. low flow) Low flow		Date: 08/21/2014		Time: 1200 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16	
						4-inch=0.64		6-inch=1.4		8-inch=2.5	
										10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1205	8.33	100	0.15	7.24	0.84	89.1	4.39	28.87	2.80	-2.81	
1215	8.33	100	0.30	7.16	0.00	41.9	4.65	27.43	2.98	-23	
1220	8.32	100	0.50	7.14	0.00	20.8	4.71	25.97	3.01	-34	
1225	8.33	100	0.65	7.14	0.00	21.9	4.82	24.83	3.09	-64	
1230	8.33	100	0.80	7.12	0.00	18.8	4.82	24.52	3.08	-79	
1235	8.34	100	1.00	7.12	0.00	19.0	4.78	24.48	3.06	-95	
1240	8.33	100	1.20	7.12	0.00	17.6	4.71	24.36	3.01	-104	
1245	8.32	100	1.40	7.16	0.00	11.36	4.61	24.35	2.95	-120	
1250	8.32	100	1.60	7.13	0.00	4.38	4.57	24.14	2.92	-124	
1255	8.33	100	1.75	7.17	0.00	7.05	4.50	23.98	2.88	-137	
1300	8.32	100	1.95	7.16	0.00	8.29	4.44	23.78	2.84	-145	
1305	8.32	100	2.20	7.19	0.00	5.32	4.44	23.54	2.85	-153	
1310	8.33	100	2.45	7.17	0.00	4.07	4.38	23.49	2.80	-163	
1315	8.33	100	2.70	7.13	0.00	2.31	4.32	23.43	2.76	-170	
1320	8.33	100	2.90	7.18	0.00	5.27	4.30	23.41	2.75	-175	
Sampling Data											
Method: (i.e. low flow) Low flow				Date: 08/21/2014		Time: (hhmm) 1320		Total Volume of Water Purged: 2.9 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	7.18	Alkalinity (mg/L)	320	Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	4.30	Carbon Dioxide (mg/L)	138	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	5.27	Ferrous Iron (mg/L)	0.6	MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	23.41	Hydrogen Sulfide (mg/L)	0.7	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-175	DTW (ft)	8.33	Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	2.75	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060			
				Microbial Census	☐						
				Hydrogen Acetylene	☐						
Comments: 											
PARSONS											

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Rob Piurek						Well ID: MW-12S		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Low flow						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.58			Depth to Well Bottom (ft): 13.18														
Date: 08/19/2014		Time: 12:00 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
12:00	7.58	200	0	7.17	8.41	80	8.05	22.22	5.08	-69	Brown, turbid						
12:10	8.06	200	0.5	7.31	7.97	60.5	7.49	20.8	4.7	-210	Brown						
12:20	8.04	200	1.0	7.25	7.58	20.9	6.6	20.99	4.14	-264	Clear						
12:30	8.04	200	1.5	7	7.39	26.3	6.03	21.17	3.79	-281	Clear						
12:40	8.04	200	2	6.88	7.36	6.38	5.72	21.22	3.6	-289	Clear						
12:45	8.06	200	2.4	6.89	7.09	21.8	5.57	21.14	3.51	-299	Clear						
12:50	8.11	200	2.6	6.83	7.02	10.04	5.52	21	3.48	-304	Clear						
12:55	8.11	200	2.9	6.83	6.32	6.59	5.34	20.83	3.37	-307	Clear						
13:00	8.11	200	3.1	6.80	6.17	5.50	5.32	20.73	3.35	-307	Clear						
13:05	8.11	200	3.3	6.84	6.08	6.7	5.29	20.73	3.33	-304	Clear						
Sampling Data																	
Method: (i.e. low flow) Low flow				Date: 08/19/2014		Time: (hhmm) 13:05		Total Volume of Water Purged: 3.3 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.84	Alkalinity (mg/L)	540	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	5.29	Carbon Dioxide (mg/L)	432	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	6.7	Ferrous Iron (mg/L)	0.1	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	6.08	Manganese (mg/L)	0.1	Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	20.73	Hydrogen Sulfide (mg/L)	4	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-304	DTW (ft)	7.58	Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	3.33	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060									
Comments: 				Microbial Census	☐												
				Hydrogen Acetylene	☐												
PARSONS																	

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: RMW-2D							
						Manual Entry: 		Well Diameter: 2 inches					
						WATER VOLUME CALCULATION							
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot							
Purging Data						Initial Depth to Water (ft): 7.07		Depth to Well Bottom (ft): 					
						Method: (i.e. low flow) Low flow		Date: 08/14/2014		Time: 1355 (hhmm)		1-inch=0.041	
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
1400	8.58	100	0.25	6.08	1.59	12.9	2.37	18.97	1.52	-301			
1405	8.91	100	0.50	5.95	0.00	11.8	2.40	18.73	1.54	-313			
1410	9.21	100	0.75	5.87	0.00	11.15	2.38	18.54	1.53	-315			
1415	9.43	100	1.00	5.85	0.00	10.74	2.38	18.35	1.53	-317			
1420	NA	100	1.25	5.90	0.00	10.42	2.41	18.35	1.54	-320			
1425	NA	100	1.50	5.97	0.00	8.47	2.57	18.33	1.65	-325			
1430	NA	100	1.75	6.04	0.00	6.59	2.70	18.87	1.76	-335			
1435	NA	100	2.00	6.09	0.00	4.52	2.69	18.97	1.73	-335			
1440	NA	100	2.25	6.09	0.00	3.76	2.70	18.29	1.73	-337			
1445	NA	100	2.50	6.04	0.00	6.68	2.72	18.02	1.74	-339			
1450	NA	100	2.75	6.01	0.00	5.73	2.72	18.04	1.74	-342			
1455	NA	100	3.00	5.99	0.00	6.12	2.71	18.18	1.74	-344			
1500	NA	100	3.25	5.97	0.00	5.91	2.71	18.24	1.73	-346			
1505	NA	100	3.50	5.97	0.00	6.38	2.68	18.23	1.72	-350			
1510	NA	100	3.75	5.95	0.00	4.21	2.67	18.19	1.70	-353			
Sampling Data													
Method: (i.e. low flow) Low flow				Date: 08/14/2014		Time: (hhmm) 1510		Total Volume of Water Purged: 3.75 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	5.95	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	2.67	Carbon Dioxide (mg/L)		Select VOCs	☑	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	4.21	Ferrous Iron (mg/L)		MEE	☑	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	18.19	Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-353	DTW (ft)		Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	1.70	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060					
				Microbial Census	☑	2 filters, 1- 650 ml, 1 - 500 ml							
				Hydrogen Acetylene	☐								
Comments: Substrate in well, unable to get accurate water level. Water too dark for HACH kits													
PARSONS													

LOW FLOW WELL SAMPLING RECORD																		
Site Name: Ekonol Facility Samplers: Caryn Moore						Well ID: RMW-3D		Well Diameter: 2 inches										
						Manual Entry: 												
						Purging Data Method: (i.e. low flow) Low flow						Date: 08/21/2014		Time: 1432		WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot		
												(hhmm)				Initial Depth to Water (ft): 8.01		Depth to Well Bottom (ft):
				1-inch=0.041								1.5-inch=0.092		2-inch=0.16		3-inch=0.36		
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4						
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments							
1437	8.04	175	0.35	7.34	0.00	3.24	2.59	20.58	1.62	-360								
1442	8.03	175	0.60	7.32	0.00	0.95	2.00	20.74	1.28	-354								
1447	8.04	175	0.85	7.38	0.00	0.66	1.88	20.31	1.20	-348								
1452	8.05	175	1.15	7.30	0.00	0.24	1.86	20.03	1.19	-344								
1457	8.03	175	1.35	7.26	0.00	0.62	1.85	20.16	1.18	-343								
1502	8.04	175	1.60	7.30	0.00	0.53	1.83	20.02	1.17	-344								
1507	8.04	175	1.85	7.35	0.00	0.49	1.83	20.01	1.17	-346								
1512	8.04	175	2.00	7.29	0.00	0.69	1.82	20.23	1.16	-342								
1517	8.03	175	2.30	7.28	0.00	0.16	1.81	20.40	1.15	-345								
1522	8.04	175	2.65	7.34	0.00	0.27	1.79	20.84	1.15	-344								
1527	8.05	175	2.90	7.39	0.00	0.12	1.77	20.79	1.13	-345								
1532	8.05	175	3.20	7.34	0.00	0.07	1.77	20.75	1.13	-344								
Sampling Data																		
Method: (i.e. low flow) Low flow					Date: 08/21/2014			Time: (hhmm) 1532		Total Volume of Water Purged: 3.2 (gal)								
HORIBA		HACH TEST KITS		SAMPLE SET														
pH	7.34	Alkalinity (mg/L)	340	Parameter		Bottle	Pres.	Method										
Spec. Cond. (mS/cm)	1.77	Carbon Dioxide (mg/L)	218	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260										
Turbidity (NTU)	0.07	Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP										
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B										
Temp.(°C)	20.75	Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified										
ORP (mv)	-344	DTW (ft)	8.05	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F										
TDS (g/L)	1.13	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060										
				Microbial Census	☐													
				Hydrogen Acetylene	☐													
Comments: 																		
PARSONS																		

LOW FLOW WELL SAMPLING RECORD													
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-11D							
						Manual Entry: 							
										Well Diameter: 2 inches			
												WATER VOLUME CALCULATION	
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot													
Initial Depth to Water (ft): 10			Depth to Well Bottom (ft): 										
Purging Data Method: (i.e. low flow) Geopump		Date: 08/14/2014		Time: 15:00 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16			
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments		
15:00	10.00	200	0	8.22	2.32	37.3	1.98	22.36	1.27	-157	Clear		
15:10	10.02	200	0.5	7.30	0.0	12.7	2.11	16.58	1.35	-282	No		
15:20	10.02	200	1.0	7.24	0.0	4.65	1.94	16.62	1.25	-284	Odor		
15:30	10.02	200	1.5	7.18	0.0	5.45	1.96	16.26	1.25	-288	Same		
15:35	10.02	200	1.7	7.15	0.0	3.64	1.96	15.99	1.25	-290	Same		
15:40	10.02	200	1.9	7.13	0.0	1.15	1.95	15.85	1.25	-291	Same		
15:45	10.02	200	2.1	7.13	0.0	1.20	1.95	15.74	1.25	-292	Same		
15:50	10.03	200	2.3	7.12	0.0	1.24	1.95	15.62	1.24	-294	Same		
15:55	10.03	200	2.6	7.11	0.0	1.75	1.95	15.42	1.25	-295			
16:00	10.03	200	2.8	7.11	0.0	0.66	1.95	15.36	1.24	-295			
Sampling Data													
Method: (i.e. low flow) Dedicated tubing				Date: 08/14/2014		Time: (hhmm) 16:00		Total Volume of Water Purged: 2.8 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET									
pH	7.11	Alkalinity (mg/L)	260	Parameter		Bottle	Pres.	Method					
Spec. Cond. (mS/cm)	1.95	Carbon Dioxide (mg/L)	178	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260					
Turbidity (NTU)	0.66	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP					
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B					
Temp.(°C)	15.36	Hydrogen Sulfide (mg/L)	1.5	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified					
ORP (mv)	-295	DTW (ft)	10.03	Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F					
TDS (g/L)	1.24	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060					
Comments: 				Microbial Census	☐								
				Hydrogen Acetylene	☐								
PARSONS													

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-17D									
						Manual Entry: 									
										Well Diameter: 2 inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 9.16			Depth to Well Bottom (ft): 												
Purging Data		Method: (i.e. low flow) Geopump		Date: 08/15/2014		Time: 11:50 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
11:50	9.16	250	0	7.49	2.23	11.7	1.24	18.44	0.801	-194	Clear				
12:00	9.30	250	0.6	6.97	0.0	9.90	2.20	15.93	1.42	-242	No				
12:10	9.31	250	1.2	6.87	0.0	6.85	2.45	15.71	1.57	-267	Odor				
12:20	9.32	250	1.7	6.83	0.0	6.76	2.47	15.81	1.58	-273	Same				
12:25	9.32	250	1.9	6.82	0.0	8.29	2.47	15.76	1.58	-274	Clear				
12:30	9.32	250	2.2	6.81	0.0	7.43	2.48	15.70	1.58	-276	No				
12:35	9.32	250	2.4	6.80	0.0	7.18	2.48	15.73	1.58	-279	Odor				
12:40	9.32	250	2.7	6.80	0.0	8.99	2.50	15.71	1.58	-281	Same				
Sampling Data															
Method: (i.e. low flow) Dedicated tubing				Date: 08/15/2014				Time: (hhmm) 12:40		Total Volume of Water Purged: 2.7 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	6.8	Alkalinity (mg/L)	280	Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	2.50	Carbon Dioxide (mg/L)	256	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	8.99	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	15.71	Hydrogen Sulfide (mg/L)	1	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-281	DTW (ft)	9.32	Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	1.58	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060							
Comments: 				Microbial Census	☐										
				Hydrogen Acetylene	☐										
PARSONS															

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Caryn Moore

Well ID:

MW-20D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

8.67

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Low flow

Date:

08/18/2014

Time:

1040

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1045	8.88	100	0.25	6.96	0.00	0.48	1.82	19.91	1.16	-231	
1050	8.88	150	0.50	7.03	0.00	0.76	1.81	19.65	1.16	-262	
1055	8.87	200	0.75	7.04	1.47	0.21	1.77	19.29	1.13	-275	
1100	8.89	250	1.15	7.04	1.18	0.15	1.79	19.11	1.15	-282	
1105	8.91	250	1.50	7.05	0.29	0.24	1.79	19.22	1.15	-286	
1110	8.93	250	1.85	7.03	0.00	0.37	1.79	19.02	1.14	-288	
1115	8.93	250	2.25	7.04	0.00	0.18	1.77	19.07	1.13	-290	
1120	8.93	250	2.70	7.03	0.00	0.21	1.77	19.04	1.13	-294	

Sampling Data

Method: (i.e. low flow)

Low flow

Date:

08/18/2014

Time: (hhmm)

1120

Total Volume of Water Purged:

2.7

 (gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
Parameter		Parameter		Parameter		Bottle	Pres.	Method
pH	7.03	Alkalinity (mg/L)	380	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Spec. Cond. (mS/cm)	1.77	Carbon Dioxide (mg/L)	170	MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Turbidity (NTU)	0.21	Ferrous Iron (mg/L)	0	Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
DO (mg/L)	0.00	Manganese (mg/L)	0	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Temp.(°C)	19.04	Hydrogen Sulfide (mg/L)	2	Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
ORP (mv)	-294	DTW (ft)	8.93	Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
TDS (g/L)	1.13	* NOTE * HACH test kits are only required for MNA analysis wells.		Microbial Census	☐			
				Hydrogen Acetylene	☐			

Comments:

Collect MS/MSD

PARSONS

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Caryn Moore Purging Data Method: (i.e. low flow) Low flow Date: 08/15/2014 Time: 1320 (hhmm)						Well ID: MW-21D Manual Entry: 		Well Diameter: 4 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
						Initial Depth to Water (ft): 8.05			Depth to Well Bottom (ft): 		
1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36					
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4					
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1325	8.15	300	0.40	8.26	0.00	9.95	1.25	19.40	0.802	-313	
1330	8.15	300	0.65	8.15	0.00	9.02	1.33	19.25	0.849	-307	
1335	8.15	300	1.00	8.06	0.00	7.54	1.38	19.14	0.888	-273	
1340	8.15	300	1.45	7.98	0.00	6.42	1.44	18.83	0.922	-226	
1345	8.15	300	1.75	7.92	0.00	4.98	1.45	18.83	0.930	-213	
1350	8.15	300	2.10	7.87	0.00	3.47	1.47	18.83	0.943	-202	
1355	8.15	300	2.60	7.84	0.00	2.75	1.50	18.73	0.961	-193	
1400	8.15	300	2.85	7.80	0.00	3.16	1.51	18.73	0.969	-188	
Sampling Data											
Method: (i.e. low flow) 				Date: 08/15/2014		Time: (hhmm) 1400		Total Volume of Water Purged: 2.85 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	7.8	Alkalinity (mg/L)	220	Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	1.51	Carbon Dioxide (mg/L)	90	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	3.16	Ferrous Iron (mg/L)	1.6	MEE	☐	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	18.73	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-188	DTW (ft)	8.15	Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	0.969	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060			
Comments: Black particles in water.				Microbial Census	☐						
				Hydrogen Acetylene	☐						
PARSONS											

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Caryn Moore						Well ID: RMW-1D					
						Manual Entry: 		Well Diameter: 2 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data						Initial Depth to Water (ft): 7.22		Depth to Well Bottom (ft): 			
Method: (i.e. low flow) Low flow		Date: 08/15/2014		Time: 0850 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16	
						4-inch=0.64		6-inch=1.4		8-inch=2.5	
										10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0855	7.27	100	0.15	6.61	0.08	9.26	0.473	17.65	0.317	-38	
0900	7.27	200	0.35	7.16	0.00	3.05	0.840	16.92	0.545	-164	
0905	7.27	250	0.60	7.16	0.00	2.53	1.12	16.66	0.879	-160	
0910	7.29	300	0.90	7.60	0.00	1.78	2.39	16.22	1.53	-298	
0915	7.29	300	1.15	7.68	0.00	0.79	2.30	15.89	1.46	-306	
0920	7.27	300	1.55	7.73	0.00	0.42	2.18	15.73	1.40	-310	
0925	7.28	300	1.80	7.71	0.00	0.75	2.11	15.60	1.35	-311	
0930	7.29	300	2.15	7.72	0.00	1.07	2.08	15.33	1.33	-311	
0935	7.29	300	2.65	7.58	0.00	1.86	2.04	15.30	1.31	-312	
0940	7.30	300	3.00	7.65	0.00	1.48	2.01	15.34	1.29	-314	
0945	7.29	300	3.35	7.63	0.00	1.09	2.01	15.3	1.28	-315	
Sampling Data											
Method: (i.e. low flow) Low flow				Date: 08/15/2014		Time: (hhmm) 0945		Total Volume of Water Purged: 3.35 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	7.63	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	2.01	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	1.09	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	15.3	Hydrogen Sulfide (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-315	DTW (ft)	7.29	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	1.28	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
				Microbial Census	☐						
				Hydrogen Acetylene	☐						
Comments: 											
PARSONS											

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: PMW-5D		Well Diameter: inches									
						Manual Entry:											
						Purging Data Method: (i.e. low flow)						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 7.50			Depth to Well Bottom (ft):														
Date: 08/14/2014		Time: 1415 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1415	8.37	200	0.27	7.92	0.00	9.33	1.41	19.74	0.891	-240							
1420	9.04	200	0.53	7.72	0.00	9.01	1.36	19.27	0.892	-251							
1425	9.60	200	0.80	7.68	0.00	8.61	1.34	19.02	0.892	-257							
1435	10.28	200	1.33	7.33	0.00	3.61	1.65	18.15	1.07	-329							
1455	10.67	200	1.88	7.06	0.00	10.8	3.75	18.33	2.41	-376							
1500	10.69	200	2.15	7.02	0.00	9.52	3.93	18.76	2.51	-374							
1505	10.74	200	2.42	7.01	0.00	4.2	4.11	18.28	2.51	-371							
1510	10.77	200	2.69	7.01	0.00	6.3	4.15	18.24	2.65	-369							
1515	10.78	200	2.96	7.02	0.00	3.2	4.17	18.47	2.67	-368							
Sampling Data																	
Method: (i.e. low flow)				Date: 08/14/2014		Time: (hhmm) 1515		Total Volume of Water Purged: 2.96 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	7.02	Alkalinity (mg/L)	640	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	4.17	Carbon Dioxide (mg/L)	460	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	3.2	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	18.47	Hydrogen Sulfide (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-368	DTW (ft)	10.78	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	2.67	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: 0.01 ft oil																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Dan Chamberland

Well ID:

PMW-8D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.8

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Geopump

Date:

08/22/2014

Time:

09:25

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
09:25	7.80	200	0.0	7.19	0.00	57.3	4.58	20.54	2.93	-338	
09:35	8.60	200	0.5	7.18	0.0	2.43	4.18	19.47	2.68	-362	Clear
09:45	8.63	200	1.0	7.11	0.0	5.12	4.38	19.03	2.80	-362	Oxidizing
09:55	8.59	200	1.5	7.03	0.0	4.98	4.54	19.04	2.91	-360	Slight
10:00	8.63	200	1.7	7.02	0.0	2.90	4.60	18.79	2.95	-360	Odor
10:05	8.66	200	1.9	7.01	0.0	3.63	4.65	18.52	2.98	-359	Same
10:10	8.70	200	2.2	6.97	0.0	4.14	4.71	18.33	3.01	-356	Same
10:15	8.74	200	2.4	6.95	0.0	5.56	4.74	18.27	3.04	-356	H2S
10:20	8.76	200	2.6	6.93	0.0	3.74	4.76	18.23	3.04	-355	Same
10:25	8.77	200	2.9	6.93	0.0	1.12	4.75	18.23	3.04	-355	
10:30	8.78	200	3.2	6.93	0.0	4.17	4.72	18.26	3.02	-355	

Sampling Data

Method: (i.e. low flow)

Date:

08/22/2014

Time: (hhmm)

10:30

Total Volume of Water Purged:

3.2

 (gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
Parameter		Parameter		Parameter		Bottle	Pres.	Method
pH	6.93	Alkalinity (mg/L)	800	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Spec. Cond. (mS/cm)	4.72	Carbon Dioxide (mg/L)	568	MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Turbidity (NTU)	4.17	Ferrous Iron (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
DO (mg/L)	0.0	Manganese (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Temp.(°C)	18.26	Hydrogen Sulfide (mg/L)	2	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
ORP (mv)	-355	DTW (ft)	8.78	Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
TDS (g/L)	3.02	* NOTE * HACH test kits are only required for MNA analysis wells.		Microbial Census	☐			
				Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Caryn Moore Purging Data Method: <i>(i.e. low flow)</i> Low flow Date: 08/18/2014 Time: 1255 (hhmm)						Well ID: MW-15D Manual Entry: 		Well Diameter: 2 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
						Initial Depth to Water (ft): 9.43			Depth to Well Bottom (ft): 		
1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36					
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4					
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1300	9.85	200	0.45	7.63	1.46	1.83	1.35	19.83	0.864	-162	
1305	9.95	300	0.75	7.53	0.35	1.78	1.34	19.01	0.857	-172	
1310	9.97	300	1.15	7.49	0.00	0.76	1.35	18.80	0.864	-173	
1315	9.98	300	1.40	7.47	0.00	0.46	1.36	18.81	0.865	-175	
1320	10.00	300	1.75	7.43	1.98	0.53	1.40	18.72	0.896	-176	
1325	10.00	300	2.10	7.40	3.76	0.11	1.39	18.78	0.888	-179	
1330	10.00	300	2.50	7.41	0.00	0.23	1.40	18.87	0.892	-184	
1335	10.00	300	2.85	7.34	3.34	0.16	1.41	19.13	0.903	-187	
1340	10.00	300	3.15	7.32	4.21	0.21	1.40	19.21	0.905	-189	
1345	10.00	300	3.5	7.32	0.00	0.26	1.41	19.16	0.906	-196	
Sampling Data											
Method: <i>(i.e. low flow)</i> Low flow				Date: 08/18/2014		Time: <i>(hhmm)</i> 1345		Total Volume of Water Purged: 3.5 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	7.32	Alkalinity (mg/L)	160	Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	1.41	Carbon Dioxide (mg/L)	78	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	0.26	Ferrous Iron (mg/L)	0.2	MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	19.16	Hydrogen Sulfide (mg/L)	1	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-196	DTW (ft)	10	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	0.906	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
				Microbial Census	☐						
				Hydrogen Acetylene	☐						
Comments: 											
PARSONS											

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-16D		Well Diameter: 2 inches									
						Manual Entry: 											
						Purging Data Method: (i.e. low flow) Geopump						WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 12.87			Depth to Well Bottom (ft): 														
Date: 08/15/2014		Time: 08:30 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36							
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4							
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
08:30	12.87	250	0	6.23	1.83	183	3.33	14.99	2.15	-271	Clear						
08:40	13.80	200	0.6	6.72	0.0	3.74	2.66	13.29	1.70	-308	No						
08:50	13.72	210	1.1	6.75	0.0	2.68	2.43	13.32	1.56	-296	Odor						
09:00	13.76	210	1.6	6.76	0.0	4.58	2.40	13.17	1.53	-293	Same						
09:05	13.76	210	1.8	6.76	0.0	3.32	2.40	13.21	1.53	-293	Same						
09:10	13.75	210	2.1	6.76	0.0	2.63	2.39	13.24	1.53	-292	Same						
09:15	13.74	210	2.3	6.76	0.0	1.47	2.35	13.27	1.50	-292	Same						
09:20	13.73	210	2.5	6.76	0.0	4.45	2.34	13.28	1.48	-293	Same						
09:25	13.72	210	2.8	6.77	0.0	3.61	2.33	13.24	1.47	-294							
Sampling Data																	
Method: (i.e. low flow) Dedicated tubing				Date: 08/15/2014		Time: (hhmm) 09:25		Total Volume of Water Purged: 2.8 (gal)									
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.77	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	2.33	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	3.61	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.0	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	13.24	Hydrogen Sulfide (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-294	DTW (ft)	13.72	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	1.47	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: 																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-18D									
						Manual Entry: 									
										Well Diameter: 2 inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 8.65			Depth to Well Bottom (ft): 												
Purging Data		Method: (i.e. low flow) Geopump		Date: 08/15/2014		Time: 13:30 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
13:30	8.65	200	0	8.21	2.27	33.2	1.55	26.58	1.10	-130	Clear				
13:40	8.68	200	0.5	6.98	0.0	13.7	1.94	18.43	1.24	-152	No				
13:50	8.70	200	1.0	6.94	0.0	8.72	1.96	17.63	1.25	-162	Odor				
14:00	8.70	200	1.5	6.92	0.0	13.6	1.95	17.52	1.25	-170	Same				
14:05	8.70	200	1.7	6.92	0.0	8.67	1.95	17.51	1.25	-172	Same				
14:10	8.71	200	1.9	6.91	0.0	4.54	1.96	17.52	1.25	-175	Same				
14:15	8.71	200	2.1	6.91	0.0	1.14	1.96	17.51	1.25	-178	Same				
14:20	8.71	200	2.3	6.91	0.0	4.65	1.97	17.39	1.26	-179	Same				
14:25	8.71	200	2.5	6.91	0.0	2.03	1.97	17.34	1.26	-182	Same				
14:30	8.71	200	2.7	6.91	0.0	1.05	1.98	17.28	1.27	-185	Same				
Sampling Data															
Method: (i.e. low flow) Dedicated tubing				Date: 08/15/2014				Time: (hhmm) 14:30		Total Volume of Water Purged: 2.7 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	6.91	Alkalinity (mg/L)	260	Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	1.98	Carbon Dioxide (mg/L)	226	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	1.05	Ferrous Iron (mg/L)	0	MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	0.0	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	17.28	Hydrogen Sulfide (mg/L)	0.2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-185	DTW (ft)	8.71	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	1.27	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060							
				Microbial Census	☐										
				Hydrogen Acetylene	☐										
Comments: 															
PARSONS															

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Doruk Ucak

Well ID:

MW-19D

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

7.71

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Date:

08/15/2014

Time:

1445

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1445	8.07	400	0.5	6.76	1.21	12.5	4.60	22.50	2.96	-104	
1450	8.03	300	0.9	6.43	0.00	5.3	4.92	20.99	3.15	-112	
1500	8.03	300	1.3	6.37	0.00	2.8	4.91	19.71	3.14	-114	
1505	8.04	300	1.7	6.35	0.00	2.9	4.81	19.65	3.08	-113	
1510	8.04	300	2.1	6.33	0.00	1.8	4.67	18.38	2.98	-111	
1515	8.04	300	2.5	6.31	0.00	2.2	4.63	18.39	2.97	-110	
1520	8.04	300	2.9	6.29	0.00	1.8	4.66	18.22	2.98	-110	
1525	8.04	300	3.3	6.28	0.00	2.9	4.66	18.13	2.98	-109	

Sampling Data

Method: (i.e. low flow)

Date:

08/15/2014

Time: (hhmm)

1525

Total Volume of Water Purged:

3.3

 (gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
Parameter		Parameter		Parameter		Pres.	Method	
pH	6.28	Alkalinity (mg/L)	200	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Spec. Cond. (mS/cm)	4.66	Carbon Dioxide (mg/L)	100	MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Turbidity (NTU)	2.9	Ferrous Iron (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
DO (mg/L)	0.00	Manganese (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Temp.(°C)	18.13	Hydrogen Sulfide (mg/L)	0	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
ORP (mv)	-109	DTW (ft)	8.04	Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
TDS (g/L)	2.98	* NOTE * HACH test kits are only required for MNA analysis wells.		Microbial Census	☐			
				Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Rob Piurek

Well ID:

MW-12D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

8

Depth to Well Bottom (ft):

32.2

Purging Data

Method: (i.e. low flow)

Low flow

Date:

08/19/2014

Time:

9:50

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
9:50	8	275	0	5.19	6.53	33.3	.262	19.22	.160	24	Waterclear
10:00	8.04	275	0.5	7.02	2.61	31.6	.888	17.57	.624	-223	Clear
10:10	8.06	275	1.0	7.22	1.12	12.3	2.72	17.01	1.74	-313	Clear
10:20	8.06	275	1.75	7.17	5.87	3.05	2.75	17.07	1.76	-325	Clear
10:30	8.06	275	2.5	7.16	5.03	2.33	2.76	18.02	1.77	-335	Clear
10:35	8.06	275	3.25	7.16	4.51	1.15	2.79	17.88	1.78	-337	Clear
10:40	8.06	275	3.75	7.16	4.22	1.19	2.76	18.22	1.76	-337	Clear
10:45	8.06	275	4.0	7.17	4.04	1.07	2.75	18.52	1.76	-338	Clear

Sampling Data

Method: (i.e. low flow)

Low flow

Date:

08/19/2014

Time: (hhmm)

10:45

Total Volume of Water Purged:

4 (gal)

HORIBA		HACH TEST KITS		SAMPLE SET				
Parameter		Parameter		Parameter		Pres.	Method	
pH	7.17	Alkalinity (mg/L)	300	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
Spec. Cond. (mS/cm)	2.75	Carbon Dioxide (mg/L)	208	MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Turbidity (NTU)	1.07	Ferrous Iron (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
DO (mg/L)	4.04	Manganese (mg/L)	0.3	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Temp.(°C)	18.52	Hydrogen Sulfide (mg/L)	5	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
ORP (mv)	-338	DTW (ft)	8	Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
TDS (g/L)	1.76	* NOTE * HACH test kits are only required for MNA analysis wells.		Microbial Census	☐			
				Hydrogen Acetylene	☐			

Comments:

MS/MSD collected for VOCs only.

PARSONS

LOW FLOW WELL SAMPLING RECORD											
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-13D					
						Manual Entry: 		Well Diameter: 2 inches			
						WATER VOLUME CALCULATION					
						= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data						Initial Depth to Water (ft): 		Depth to Well Bottom (ft): 			
Method: (i.e. low flow)		Date:		Time:							
Geopump		08/15/2014		10:25		1-inch=0.041		1.5-inch=0.092		2-inch=0.16	
				(hhmm)		4-inch=0.64		6-inch=1.4		8-inch=2.5	
										3-inch=0.36	
										10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:25	11.41	250	0	6.87	0.25	80.5	2.57	18.00	1.66	-302	Clear
10:35	11.72	250	0.6	6.60	0.0	8.5	3.13	17.28	2.00	-322	No
10:45	11.72	250	1.2	6.52	0.0	11.9	3.15	17.37	2.02	-305	Odor
10:50	11.72	250	1.5	6.52	0.0	12.76	3.14	17.48	2.01	-305	Same
10:55	11.71	250	1.7	6.51	0.0	9.91	3.13	17.66	2.00	-304	Same
11:00	11.71	250	2.0	6.51	0.0	10.12	3.07	17.82	1.97	-304	
11:05	11.71	250	2.3	6.51	0.0	8.00	3.03	18.01	1.94	-303	
11:10	11.70	250	2.5	6.53	0.0	1.18	2.98	18.12	1.86	-303	Same
11:15	11.70	250	2.7	6.58	0.0	2.33	2.94	18.21	1.75	-302	
Sampling Data											
Method: (i.e. low flow)				Date:		Time: (hhmm)		Total Volume of Water Purged:			
				08/15/2014		11:15		2.7 (gal)			
HORIBA		HACH TEST KITS		SAMPLE SET							
pH	6.58	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method			
Spec. Cond. (mS/cm)	2.94	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260			
Turbidity (NTU)	2.33	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP			
DO (mg/L)	0.0	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B			
Temp.(°C)	18.21	Hydrogen Sulfide (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified			
ORP (mv)	-302	DTW (ft)	11.7	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F			
TDS (g/L)	1.75	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060			
				Microbial Census	☐						
				Hydrogen Acetylene	☐						
Comments:											
PARSONS											

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Rob Piurek						Well ID: MW-9S									
						Manual Entry:									
										Well Diameter: 2 inches					
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft): 7.74			Depth to Well Bottom (ft): 13.97												
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/19/2014		Time: 14:35 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
14:35	7.74	180	0	7.77	8	3241	3.31	30.07	2.13	-108	Turbid, gray				
14:45	8.8	180	0.5	6.98	5.87	19.2	3.87	24.83	2.48	-105	Clear				
15:00	8.88	180	1.2	6.97	5.08	11.4	3.97	23.79	2.54	-158	Clear				
15:10	8.95	150	1.8	6.98	4.85	27	3.98	22.36	2.56	-199	Clear				
15:15	9	150	2.1	7.02	4.72	22.7	3.96	21.54	2.54	-234	Clear				
15:20	9.04	150	2.3	7.05	4.57	21.5	3.94	21.34	2.52	-246	Clear				
15:25	9.05	150	2.5	7.06	4.43	17.3	3.92	21.24	2.52	-253	Clear				
15:30	9.05	150	2.7	7.08	4.25	24.1	3.93	21.23	2.52	-264	Clear				
15:35	9.06	150	3	7.11	4.18	16.8	3.92	21.25	2.51	-269	Clear				
Sampling Data															
Method: (i.e. low flow) Low flow				Date: 08/19/2014				Time: (hhmm) 15:35		Total Volume of Water Purged: 3 (gal)					
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	7.11	Alkalinity (mg/L)	480	Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	3.92	Carbon Dioxide (mg/L)	580	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	16.8	Ferrous Iron (mg/L)	0.8	MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	4.18	Manganese (mg/L)	0.4	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	21.25	Hydrogen Sulfide (mg/L)	2	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-269	DTW (ft)	7.74	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	2.51	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060							
				Microbial Census	☐										
				Hydrogen Acetylene	☐										
Comments:															
PARSONS															

LOW FLOW WELL SAMPLING RECORD

Site Name:

EkonoI Facility

Samplers:

Dan Chamberland

Well ID:

MW-7S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Initial Depth to Water (ft):

6.17

Depth to Well Bottom (ft):

Purging Data

Method: (i.e. low flow)

Date:

08/20/2014

Time:

0815

(hhmm)

1-inch=0.041

1.5-inch=0.092

2-inch=0.16

3-inch=0.36

4-inch=0.64

6-inch=1.4

8-inch=2.5

10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0815	6.17	200	0	6.63	3.38	36.8	7.23	21.91	4.54	106	
0825	6.05	200	0.5	6.26	0.0	2.35	7.27	19.01	4.57	53	
0835	8.71	200	1.0	6.35	0.0	3.74	6.93	18.86	4.37	47	
0845	9.40	200	1.5	6.35	0.0	4.62	7.16	18.88	4.51	37	
0850	9.80	200	1.7	6.35	0.0	5.56	7.28	18.80	5.58	24	
0855	10.20	200	1.9	6.35	0.0	2.74	7.39	18.73	4.96	20	
0905	Dry	na	na	na	na	na	na	na	na	na	

Sampling Data

Method: (i.e. low flow)

Date:

08/21/2014

Time: (hhmm)

0810

Total Volume of Water Purged: (gal)

HORIBA

pH	
Spec. Cond. (mS/cm)	
Turbidity (NTU)	
DO (mg/L)	
Temp.(°C)	
ORP (mv)	
TDS (g/L)	

HACH TEST KITS

Alkalinity (mg/L)	300
Carbon Dioxide (mg/L)	360
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	
DTW (ft)	
* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260
MEE	☒	2-40 mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD																	
Site Name: EkonoI Facility Samplers: Dan Chamberland						Well ID: MW-4S Manual Entry: 		Well Diameter: 2 inches									
												WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data						Initial Depth to Water (ft): 7.82			Depth to Well Bottom (ft): 								
Method: (i.e. low flow) Geopump		Date: 08/21/2014		Time: 0850 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36					
						4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4					
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
0850	7.82	200	0.0	6.03	4.91	67.1	5.22	24.32	3.41	-78	Clear						
0900	8.45	200	0.5	7.00	0.0	27.3	5.65	19.34	3.56	-218	Veggie						
0910	9.05	200	1.0	6.91	0.0	4.17	4.61	19.57	2.95	-190	Odor						
0920	9.30	200	1.5	6.87	0.0	6.36	4.91	19.44	3.11	-178							
0925	9.65	200	1.7	6.84	0.0	5.92	5.22	19.38	3.22	-165							
0930	10.00	200	1.9	6.81	0.0	10.24	5.32	19.31	3.35	-154							
0935	10.21	200	2.2	6.80	0.0	3.01	5.48	19.22	3.46	-163							
0940	10.40	120	2.4	6.81	0.0	3.73	5.48	19.34	3.45	-166							
0945	10.55	120	2.5	6.78	0.0	1.12	5.59	19.08	3.53	-179	Dry						
Sampling Data																	
Method: (i.e. low flow) Dedicated tubing				Date: 08/22/2014				Time: (hhmm) 0830		Total Volume of Water Purged: (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH		Alkalinity (mg/L)	526	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	424	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)		Ferrous Iron (mg/L)	0.6	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)		Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)		Hydrogen Sulfide (mg/L)	4	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)		DTW (ft)	10.55	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: 																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD															
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-02									
						Manual Entry:									
												Well Diameter: inches			
												WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot															
Initial Depth to Water (ft):			Depth to Well Bottom (ft):												
Purging Data Method: (i.e. low flow)		Date: 08/20/2014		Time: 1045 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16					
						4-inch=0.64		6-inch=1.4		8-inch=2.5					
						10-inch=0.36									
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments				
1050	8.50	250	0.34	6.50	0.00	1100	0.504	19.54	0.322	-137					
1055	8.50	250	0.68	6.53	0.00	-23	0.522	19.50	0.334	-146					
1100	8.57	250	1.02	6.57	0.00	-45	0.535	19.29	0.342	-155					
1105	8.66	250	1.38	6.67	0.00	-32	0.540	19.16	0.346	-163					
1110	8.75	250	1.72	6.66	0.00	-27	0.558	19.12	0.355	-164					
1115	8.82	250	2.04	6.66	0.00	-40	0.563	19.09	0.367	-165					
1120	8.91	250	2.42	6.65	0.00	-35	0.586	19.08	0.373	-166					
1125	9.00	250	2.74	6.65	0.00	-34	0.596	19.07	0.384	-166					
1135	9.04	250	3.06	6.70	0.00	-27	1.12	19.27	0.732	-248					
1145	9.06	250	3.40	6.72	0.00	-16	1.65	19.71	1.07	-325					
1150	9.09	250	3.74	6.69	0.00	-5	1.90	19.80	1.22	-388					
1155	9.12	250	4.08	6.61	0.00	150	2.10	19.89	1.35	-430					
1200	9.15	250	4.42	6.56	0.00	98.6	2.32	20.03	1.49	-453					
1205	9.17	250	4.76	6.56	0.00	46.9	2.48	20.29	1.59	-466					
1210	9.18	250	5.10	6.54	0.00	35.3	2.60	20.07	1.66	-476					
1215	9.18	250	5.44	6.53	0.00	27.8	2.62	20.01	1.68	-481					
1220	9.19	250	5.78	6.55	0.00	27.2	2.62	20.34	1.63	-482					
Sampling Data															
Method: (i.e. low flow)			Date: 08/20/2014			Time: (hhmm) 1220		Total Volume of Water Purged: 5.78 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET											
pH	6.55	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method							
Spec. Cond. (mS/cm)	2.62	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260							
Turbidity (NTU)	27.2	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP							
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B							
Temp.(°C)	20.34	Hydrogen Sulfide (mg/L)	5	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified							
ORP (mv)	-482	DTW (ft)	9.19	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F							
TDS (g/L)	1.63	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060							
				Microbial Census	☐										
				Hydrogen Acetylene	☐										
Comments: Water too dark															
PARSONS															

LOW FLOW WELL SAMPLING RECORD																	
Site Name: Ekonol Facility Samplers: Caryn Moore						Well ID: INJ-04			Well Diameter: 4 inches								
						Manual Entry: 											
												WATER VOLUME CALCULATION					
												= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Initial Depth to Water (ft): 8.05			Depth to Well Bottom (ft): 														
Purging Data		Method: (i.e. low flow) Low flow		Date: 08/22/2014		Time: 1131 (hhmm)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36			
								4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4			
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments						
1136	8.15	100	0.15	6.55	0.00	20.9	0.208	24.98	0.133	-234							
1141	8.20	100	0.30	6.44	0.00	16.8	0.185	24.94	0.119	-224							
1146	8.23	100	0.50	6.50	0.00	7.86	0.180	24.26	0.116	-225							
1151	8.25	100	0.65	6.58	0.00	5.28	0.169	24.31	0.110	-227							
1156	8.25	100	0.80	6.59	0.00	9.13	0.168	23.51	0.110	-228							
1201	8.25	100	1.00	6.59	0.00	10.55	0.169	22.84	0.110	-229							
1206	8.25	100	1.15	6.69	0.00	8.35	0.167	22.54	0.109	-232							
1211	8.25	100	1.30	6.73	0.00	6.58	0.167	22.43	0.109	-235							
1216	8.25	100	1.50	6.77	0.00	6.16	0.168	22.44	0.109	-235							
1221	8.25	100	1.70	6.80	0.00	5.97	0.167	22.30	0.109	-235							
1226	8.25	100	1.95	6.81	0.00	3.24	0.168	22.22	0.109	-235							
1231	8.25	100	2.15	6.74	0.00	1.21	0.169	22.81	0.110	-232							
1236	8.25	100	2.30	6.59	0.00	3.87	0.172	23.37	0.112	-233							
1241	8.25	100	2.55	6.78	0.00	2.13	0.169	23.51	0.110	-235							
1246	8.25	100	2.75	6.82	0.00	1.26	0.168	23.62	0.109	-235							
1251	8.25	100	2.90	6.83	0.00	4.39	0.169	24.30	0.110	-235							
1256	8.25	100	3.10	6.84	0.00	6.13	0.168	24.64	0.109	-234							
1301	8.25	100	3.25	6.83	0.00	7.97	0.169	25.55	0.110	-234							
1306	8.25	100	3.45	6.84	0.00	7.26	0.169	25.86	0.110	-234							
1311	8.25	100	3.60	6.85	0.00	7.55	0.168	25.94	0.109	-234							
1316	8.25	100	3.75	6.85	0.00	7.23	0.168	25.90	0.109	-233							
Sampling Data																	
Method: (i.e. low flow) Low flow					Date: 08/22/2014			Time: (hhmm) 1316		Total Volume of Water Purged: 3.75 (gal)							
HORIBA		HACH TEST KITS		SAMPLE SET													
pH	6.85	Alkalinity (mg/L)	160	Parameter		Bottle	Pres.	Method									
Spec. Cond. (mS/cm)	0.168	Carbon Dioxide (mg/L)	90	Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260									
Turbidity (NTU)	7.23	Ferrous Iron (mg/L)	3.8	MEE	☒	2-40 mL glass vial	HCl	Lab SOP									
DO (mg/L)	0.00	Manganese (mg/L)	0	Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B									
Temp.(°C)	25.90	Hydrogen Sulfide (mg/L)	0	Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified									
ORP (mv)	-233	DTW (ft)	8.25	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F									
TDS (g/L)	0.109	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060									
				Microbial Census	☐												
				Hydrogen Acetylene	☐												
Comments: 																	
PARSONS																	

LOW FLOW WELL SAMPLING RECORD																			
Site Name: EkonoI Facility Samplers: Doruk Ucak						Well ID: INJ-05		Well Diameter: inches											
						Manual Entry:													
						Purging Data Method: (i.e. low flow)						Date: 08/19/2014		Time: 1520 (hhmm)		WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
												Initial Depth to Water (ft): 7.55		Depth to Well Bottom (ft):					
1-inch=0.041		1.5-inch=0.092		2-inch=0.16								3-inch=0.36							
4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4													
Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments								
1520	7.55	150	0.20	6.60	0.00	206	5.23	21.48	3.30	-108									
1525	8.30	150	0.40	6.57	0.00	113	5.16	22.40	3.25	-170									
1530	8.39	150	0.60	6.56	0.00	75.7	5.15	22.59	3.25	-208									
1535	8.44	150	0.80	6.44	0.00	22.7	5.13	22.36	3.23	-370									
1540	8.51	150	1.00	6.38	0.00	45.7	5.09	24.87	3.21	-454									
1550	8.59	150	1.20	6.37	0.00	38.9	5.06	21.63	3.18	-464									
1600	8.66	150	1.40	6.40	0.00	52.8	4.96	21.24	3.17	-470									
1610	8.69	150	1.60	6.45	0.00	42.9	4.79	21.07	3.06	-468									
1615	8.70	150	1.80	6.47	0.00	41.2	4.75	20.89	3.04	-464									
1620	8.70	150	2.00	6.48	0.00	45.8	4.49	20.81	3.00	-462									
1625	8.71	150	2.20	6.49	0.00	52.3	4.63	20.76	2.96	-460									
1630	8.72	150	2.40	6.50	0.00	48.9	4.58	20.72	2.93	-458									
1635	8.73	150	2.60	6.50	0.00	47.6	4.55	20.77	2.91	-456									
1640	8.73	150	2.80	6.51	0.00	48.3	4.55	20.66	2.91	-456									
1645	8.73	150	3.00	6.52	0.00	46.5	4.52	20.55	2.89	-454									
1650	8.73	150	3.20	6.53	0.00	24.8	4.49	20.59	2.87	-453									
1655	8.73	150	3.40	6.53	0.00	12.8	4.47	20.62	2.86	-451									
Sampling Data																			
Method: (i.e. low flow)				Date: 08/19/2014		Time: (hhmm) 1655		Total Volume of Water Purged: 3.4 (gal)											
HORIBA		HACH TEST KITS		SAMPLE SET															
pH	6.53	Alkalinity (mg/L)		Parameter		Bottle	Pres.	Method											
Spec. Cond. (mS/cm)	4.47	Carbon Dioxide (mg/L)		Select VOCs	☒	3-40 mL glass vial	HCl	EPA 8260											
Turbidity (NTU)	12.8	Ferrous Iron (mg/L)		MEE	☒	2-40 mL glass vial	HCl	Lab SOP											
DO (mg/L)	0.00	Manganese (mg/L)		Dissolved Inorganics	☒	1-250 mL plastic (Field Filtered)	HNO3	SW6010B											
Temp.(°C)	20.62	Hydrogen Sulfide (mg/L)		Chloride / Nitrate / Sulfate	☒	2-40 mL glass (Field Filtered)	None	lab specified											
ORP (mv)	-451	DTW (ft)	8.73	Sulfide	☒	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F											
TDS (g/L)	2.86	* NOTE * HACH test kits are only required for MNA analysis wells.		Total Organic Carbon	☒	2-40 mL amber glass vial	H3PO4	SW9060											
Comments: Dtw includes oil layer thickness.				Microbial Census	☐														
				Hydrogen Acetylene	☐														
PARSONS																			

ATTACHMENT C
DATA USABILITY REPORT

DATA USABILITY SUMMARY REPORT

EKONOL FACILITY

Prepared For:

Atlantic Richfield Company

4850 East 49th Street
MBC 3-147
Cuyahoga Heights, Ohio 44125

Prepared By:

PARSONS

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OCTOBER 2014

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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected for the 2014 2nd Quarter Monitoring from the Ekonol Facility site in Wheatfield, New York from August 12, 2014 through August 22, 2014. Analytical results from these samples were reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- NYSDEC Analytical Services Protocol (ASP), and
- USEPA Region II Standard Operating Procedures (SOPs).

The analytical laboratories for this project were Eurofins Laboratories, Inc. (Eurofins), Microseeps, Inc. (Microseeps), and Microbial Insights (MI). Eurofins is approved to conduct project analyses through the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 16-21 days for the Ekonol samples. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, shipped under a COC record, and received at the laboratory within one day of sampling. All samples were received intact and in good condition at the laboratories. It was noted that volatile samples PMW-6S, OR-4SM, and OR-15SM and the methane, ethane, and ethene samples PMW-6S, OR-4SM, and OR-15SM were received and analyzed at Eurofins with a pH between 4 and 7 which exceeds the pH<2 preservation requirement.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples collected from the Ekonol site were analyzed for certain volatile organic compounds (VOCs) including methane, ethane, and ethene; dissolved metals; dissolved sulfate; dissolved sulfide; total organic carbon (TOC); acetylene; and/or dechlorinating bacteria and functional genes. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, and comparability (PARCC) are discussed for each analytical method in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

- "U" - not detected at the value given,
- "UJ" - estimated and not detected at the value given,
- "J" - estimated at the value given,
- "J+" - estimated biased high at the value given,
- "J-" - estimated biased low at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis Including Methane, Ethane, and Ethene

The groundwater samples collected from the Ekonol site were analyzed for certain VOCs using the USEPA SW-846 8260C analytical method. In addition, certain groundwater samples were analyzed for methane, ethane, and ethene using the modified USEPA approved RSK-175 analytical method. Certain reported results for these samples were considered estimated based upon sample holding times and field duplicate precision. The reported VOC and methane, ethane, and ethene analytical results were 100% complete (i.e., usable) based upon the groundwater data presented by Eurofins. PARCC requirements were met.

1.3.2 Metals Analysis

Certain groundwater samples collected from the Ekonol site were analyzed for dissolved metals using the USEPA SW-846 6010C analytical method. Certain reported results for the metals samples were considered estimated based upon instrument calibration standard recoveries. The reported metals analytical results were 100% complete (i.e., usable) based upon the groundwater data presented by Eurofins. PARCC requirements were met.

1.3.3 Other Parameters

The groundwater samples collected from the Ekonol site were analyzed for dissolved sulfate using the USEPA 300.0 analytical method; dissolved sulfide using the SM20 4500 analytical method; TOC using the SM20 5310C analytical method; acetylene using the Microseeps SOP AM20GAX; and/or dechlorinating bacteria and functional genes using the MI SOP. Custody documentation, holding times, laboratory blanks, matrix spike/matrix spike duplicate, laboratory duplicate precision, laboratory control samples, instrument calibrations, quantitation limits, sample result identification, and field duplicate precision were reviewed for compliance. The reported results for these samples did not require qualification resulting from data validation with the exception of the positive sulfate result for sample PMW-5S which was considered estimated, possibly biased low, and qualified "J-" based upon a low sulfate matrix spike recovery (53%R; QC limit 90-110%R). The reported analytical results for these parameters were 100% complete (i.e., usable) based upon the groundwater data presented by Eurofins, Microseeps, and MI. PARCC requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 2ND QUARTER MONITORING EVENT

Data review has been completed for data packages generated by Eurofins containing groundwater samples collected from the Ekonol Facility site during the 2nd Quarter Monitoring event. All of these samples were shipped under a COC record and received intact by the analytical laboratory. Analytical results from the project samples were submitted by Eurofins within the following sample delivery groups (SDGs): BPX13, BPX14, BPX15, BPX16, BPX17, BPX18, BPX19, BPX20, and BPX21. Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs and the NYSDEC ASP for organic and inorganic data review. This data validation and usability report is presented by analysis type. The validated laboratory data are tabulated and presented in Attachment A.

2.1.1 Volatiles Including Methane, Ethane, and Ethene (MEE)

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip blank contamination
- Instrument performance
- Initial and continuing calibrations
- Internal standard responses
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times, MS/MSD precision and accuracy, and field duplicate precision as discussed below.

Holding Times

All analytical holding times were within the 14-day criteria for preserved volatile samples with the exception of the MEE samples PMW-6S, OR-4SM, and OR-15SM. These samples were received by the laboratory at a pH between 5 and 7 and exceeded the 7-day analytical holding time criteria for unpreserved samples by one to three days. Therefore, results for these samples were considered estimated with positive results qualified “J” and nondetected results qualified “UJ”.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the high MSD accuracy results for vinyl chloride (360%R; QC limit 66-133%R), trans-1,2-dichloroethene (142%R; QC limit 86-131%R), and trichloroethene (178%R; QC limit 88-133%R) during the spiked analyses of sample PMW-5S; the high MSD accuracy result for chloroethane (132%R; QC limit 55-130%R) and the high MS/MSD accuracy results for ethene (217%R/202%R; QC limit 35-162%R) during the spiked analyses of sample OR-14SM; and the high MS/MSD accuracy results for chloroethane (141%R/145%R; QC limit 55-130%R) during the spiked analyses of sample MW-12D. Validation qualification was not required for these parent samples.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the field duplicate precision for chloroethane (78%RPD), cis-1,2-dichloroethene (38%RPD), and trichloroethene (71%RPD) associated with sample PMW-14 and its duplicate PMW-140D. Therefore, the results for these compounds were considered estimated and qualified “J” for these samples.

Usability

All volatile groundwater sample results including methane, ethane, and ethene were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The volatile groundwater presented were 100% (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

It was also noted that many samples were diluted and reanalyzed due to the exceedance in instrument calibration ranges for cis-1,2-dichloroethene, 1,1-dichloroethane, trichloroethene, 1,1,1-trichloroethane, vinyl chloride, methane, and/or ethene. Therefore, the diluted result for

these compounds was reported for these samples in the validated laboratory data table in Attachment A.

2.1.2 Dissolved Metals

The following items were reviewed for compliancy in the metals analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration, and preparation blank contamination
- Initial and continuing calibration verifications
- Interference check sample (ICS) recoveries
- Matrix spike recoveries
- Laboratory duplicate precision
- Field duplicate precision
- Laboratory control sample recoveries
- Serial dilutions
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of instrument calibrations as discussed below.

Instrument Calibrations

All initial and continuing calibration verifications were considered acceptable, within QC limits, and analyzed at the appropriate frequency. All instrument calibration standard recoveries were considered acceptable and within the 70-130%R QC limit with the exception of the high recovery for magnesium (135%R) associated with sample PMW-9S and the high recoveries for calcium (135.3%R) and magnesium (142.1%R) associated with all samples collected on 8/18/14. Therefore, the positive results for these analytes were considered estimated, possibly biased high, and qualified “J+” for the affected samples.

Usability

All metals sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The metals data presented by Eurofins were 100% complete (i.e., usable). The validated groundwater laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

EkonoI Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-01 INJ-01_2014-08-22 7576219 LANCASTERLABS BPX21 WATER 8/22/2014 14:05 9/24/2014	INJ-02 INJ-02_2014-08-20 7573285 LANCASTERLABS BPX19 WATER 8/20/2014 12:20 9/24/2014	INJ-04 INJ-04_2014-08-22 7576218 LANCASTERLABS BPX21 WATER 8/22/2014 13:16 9/24/2014	INJ-05 INJ-05_2014-08-19 7571757 LANCASTERLABS BPX18 WATER 8/19/2014 16:55 9/24/2014	INJ-7D INJ-7D_2014-08-12 7564201/042LH/13056 LANCASTERLABS BPX13 WATER 8/12/2014 11:00 9/24/2014	INJ-8D INJ-8D_2014-08-21 7574713 LANCASTERLABS BPX20 WATER 8/21/2014 10:25 9/24/2014	INJ-9D INJ-9D_2014-08-13 7565473/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 11:00 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	50 U	25 U	0.5 U	50 U	100 U	110	100 J
75-34-3	1,1-DICHLOROETHANE	ug/l	70 J	37 J	1.3	81 J	100 U	690	120
75-35-4	1,1-DICHLOROETHENE	ug/l	160	58	2.5	130	940	4.8	170
75-00-3	CHLOROETHANE	ug/l	50 U	25 U	0.5 U	50 U	100 U	11	50 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	94000	44000	1700	150000	380000	740	93000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	50 U	55	7.4	110	420	0.94 J	74 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	210	160	3.4	150	270	31	110
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	7700	4400	8.5	9400	160000	3.8	11000
75-01-4	VINYL CHLORIDE	ug/l	19000	12000	130	10000	11000	610	14000
74-85-1	ETHENE	ug/l	4600	3700	35	1200	430	6600	5400
74-84-0	ETHANE	ug/l	37	63	9.9	51	38	59	32
74-82-8	METHANE	ug/l	9100	11000	3600	5600	1000	24000	11000
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	353	300	17.6	319	313	305	246
7439-89-6	IRON	mg/l	1.2	2.53	46.7	2.39	23.6	10	9.08
7439-95-4	MAGNESIUM	mg/l	144	93.4	2.1	169	70.8	109	42.4
7439-96-5	MANGANESE	mg/l	0.738	0.524	0.217	0.968	0.776	0.457	0.556
9/7/7440	POTASSIUM	mg/l	7.4	8.28	0.685 J	8.4	6.83	39.8	4.44
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	388	258	143	467	258	443	279
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	74.9	18	1.5 U	152	153	2.4 J	8.4
18496-25-8	SULFIDE	mg/l	94.6	60.2	0.094 J	119	1.4	21.5	10.2
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL					412000		164000
DHBt	DHBt	cells/mL					9570		1930
DHC	DHC	cells/mL					2920000		1760000
TCE	TCE	cells/mL					14700		9160
VCR	VCR	cells/mL					47000		92800
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l					15		0.5 U

EkonoL Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-10D INJ-10D_2014-08-12 7564204/042LH/13056 LANCASTERLABS BPX13 WATER 8/12/2014 15:35 9/24/2014	INJ-11D INJ-11D_2014-08-13 7565474 LANCASTERLABS BPX14 WATER 8/13/2014 16:35 9/24/2014	INJ-12D INJ-12D_2014-08-14 7567460 LANCASTERLABS BPX15 WATER 8/14/2014 9:25 9/24/2014	INJ-13D INJ-13D_2014-08-14 7567464 LANCASTERLABS BPX15 WATER 8/14/2014 12:40 9/24/2014	MW-1S MW-1S_2014-08-15 7568105 LANCASTERLABS BPX16 WATER 8/15/2014 11:30 9/24/2014	MW-2S MW-2S_2014-08-18 7569227/042LH LANCASTERLABS BPX17 WATER 8/18/2014 9:30 9/24/2014	MW-3S MW-3S_2014-08-19 7571752 LANCASTERLABS BPX18 WATER 8/19/2014 13:50 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	2500	100 U	0.5 U	50 U	0.5 U	130 U	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	600	100 U	0.5 U	50 U	0.5 U	130 U	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	130	500	0.5 U	95 J	0.5 U	810	0.5 U
75-00-3	CHLOROETHANE	ug/l	5 U	100 U	0.5 U	50 U	0.5 U	130 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	7600	230000	110	51000	24	300000	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	18	320	2.3	50 U	0.5 U	130 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	32	150 J	0.85 J	100	1.3	2000	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	12	140000	6	1000	1.8	630	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	2800	6800	50	6500	1.4	30000	0.5 U
74-85-1	ETHENE	ug/l	190	550	19	2700	1 U	190	1 U
74-84-0	ETHANE	ug/l	11	34	4 J	70	1 U	17	1 U
74-82-8	METHANE	ug/l	5600	5600	2000	15000	9.9	240	31
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	246	265	15.8	282	108	455 J+	221
7439-89-6	IRON	mg/l	0.0599 J	0.562	11.7	0.0627 J	1.68	5.17	0.0397 J
7439-95-4	MAGNESIUM	mg/l	85.1	103	2.83	97.5	76.2	268 J+	88.3
7439-96-5	MANGANESE	mg/l	0.186	0.442	0.165	0.491	0.359	2.09	0.213
9/7/7440	POTASSIUM	mg/l	3.63	10.7	1.38	10.2	3.01	3.49	42.8
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	74.3	202	58	164	5.7	7	4.7
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	44.4	164	1.5 U	45.9	533	954	523
18496-25-8	SULFIDE	mg/l	138	78.5	0.24	62.7	0.23	0.054 U	0.054 U
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL	41900					392000	
DHBt	DHBt	cells/mL	2600					309	
DHC	DHC	cells/mL	284000					666000	
TCE	TCE	cells/mL	1600					13.1	
VCR	VCR	cells/mL	5360					3.4	
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l	0.5 U						

EkonoI Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-4S MW-4S_2014-08-22 7576214 LANCASTERLABS BPX21 WATER 8/22/2014 8:30 9/24/2014	MW-6S MW-6S_2014-08-21 7574711 LANCASTERLABS BPX20 WATER 8/21/2014 8:10 9/24/2014	MW-7D MW-7D_2014-08-18 7569237 LANCASTERLABS BPX17 WATER 8/18/2014 16:00 9/24/2014	MW-7S MW-7S_2014-08-21 7574710 LANCASTERLABS BPX20 WATER 8/21/2014 8:10 9/24/2014	MW-9S MW-9S_2014-08-19 7571754 LANCASTERLABS BPX18 WATER 8/19/2014 15:35 9/24/2014	MW-10S MW-10S_2014-08-18 7569236 LANCASTERLABS BPX17 WATER 8/18/2014 14:50 9/24/2014
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	0.5 U	360	0.5 U	5.6	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	2	4.5	650	0.5 U	7.3	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	3.2	0.63 J	93 J	0.5 U	2.3	1.8
75-00-3	CHLOROETHANE	ug/l	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1100	44	72000	0.71 J	460	630
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	13	0.6 J	140	0.5 U	3.8	4.7
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	10	1.3	780	0.5 U	0.9 J	3
75-01-4	VINYL CHLORIDE	ug/l	450	170	3000	0.5 U	330	190
74-85-1	ETHENE	ug/l	88	6.4	470	1 U	26	23
74-84-0	ETHANE	ug/l	20	31	41	1 U	1 U	2.9 J
74-82-8	METHANE	ug/l	2900	140	8600	3 U	58	440
	DISSOLVED METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U		0.0674 U	0.0674 U	0.0674 U	
7440-70-2	CALCIUM	mg/l	383		292 J+	913	360	
7439-89-6	IRON	mg/l	0.185 J		0.0334 U	4.44	1.76	
7439-95-4	MAGNESIUM	mg/l	649		177 J+	506	464	
7439-96-5	MANGANESE	mg/l	0.685		0.444	0.538	0.524	
9/7/7440	POTASSIUM	mg/l	9.26		7.53	6.18	3.62	
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	7.7		219	2.9	10.8	
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	2240		12.2	1700	2040	
18496-25-8	SULFIDE	mg/l	11.3		220	0.054 U	5.7	
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL						
DHBt	DHBt	cells/mL						
DHC	DHC	cells/mL						
TCE	TCE	cells/mL						
VCR	VCR	cells/mL						
	MICROSEEPS DATA							
74-86-2	Acetylene	ug/l						

EkonoI Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-11D MW-11D_2014-08-14 7567462 LANCASTERLABS BPX15 WATER 8/14/2014 16:00 9/24/2014	MW-11S MW-11S_2014-08-21 7574716 LANCASTERLABS BPX20 WATER 8/21/2014 13:20 9/24/2014	MW-12D MW-12D_2014-08-19 7571747 LANCASTERLABS BPX18 WATER 8/19/2014 10:45 9/24/2014	MW-12S MW-12S_2014-08-19 7571750 LANCASTERLABS BPX18 WATER 8/19/2014 13:05 9/24/2014	MW-13D MW-13D_2014-08-15 7568104 LANCASTERLABS BPX16 WATER 8/15/2014 11:15 9/24/2014	MW-15D MW-15D_2014-08-18 7569233 LANCASTERLABS BPX17 WATER 8/18/2014 13:45 9/24/2014	MW-16D MW-16D_2014-08-15 7568099 LANCASTERLABS BPX16 WATER 8/15/2014 9:25 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	290	5.9	1.9	23	0.5 U	63	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	43	42	0.5 U	34	8.4	31	6.5
75-35-4	1,1-DICHLOROETHENE	ug/l	4.8	1.2	0.5 U	3.7	0.79 J	2.9	1.4
75-00-3	CHLOROETHANE	ug/l	3	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	53	160	7.5	1500	200	270	250
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.87 J	8.4	0.5 U	48	1.3	3.6	1.2
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	4.3	87	0.5 U	1400	0.5 U	2.9	0.95 J
75-01-4	VINYL CHLORIDE	ug/l	100	50	2.2	740	230	300	190
74-85-1	ETHENE	ug/l	13	98	1 U	570	63	3.6 J	18
74-84-0	ETHANE	ug/l	18	4 J	39	43	11	1 U	8
74-82-8	METHANE	ug/l	220	1200	210	9000	660	27	220
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l			0.0674 U		0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l			585		345	139 J+	366
7439-89-6	IRON	mg/l			0.0334 U		0.0838 J	0.111 J	0.156 J
7439-95-4	MAGNESIUM	mg/l			123		147	56.8 J+	142
7439-96-5	MANGANESE	mg/l			0.0204		0.0541	0.0771	0.0515
9/7/7440	POTASSIUM	mg/l			3.12		3.91	4.45	4.2
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l			1.6		5.4	3	4.9
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l			1490		855	389	972
18496-25-8	SULFIDE	mg/l			47.5		7.1	1.2	2.4
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL							
DHBt	DHBt	cells/mL							
DHC	DHC	cells/mL							
TCE	TCE	cells/mL							
VCR	VCR	cells/mL							
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l							

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	Dup of MW-16D_2014-08-15						
			MW-16D	MW-17D	MW-18D	MW-19D	MW-20D	MW-21D	OR-3SM
			MW-160D_2014-08-15	MW-17D_2014-08-15	MW-18D_2014-08-15	MW-19D_2014-08-15	MW-20D_2014-08-18	MW-21D_2014-08-15	OR-3SM_2014-08-20
			7568101	7568106	7568108	7568109	7569228	7568107	7573287
			LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS
CAS NO.	COMPOUND	UNITS:	BPX16	BPX16	BPX16	BPX16	BPX17	BPX16	BPX19
			WATER	WATER	WATER	WATER	WATER	WATER	WATER
			8/15/2014 12:01	8/15/2014 12:40	8/15/2014 14:30	8/15/2014 15:25	8/18/2014 11:20	8/15/2014 14:00	8/20/2014 10:25
			9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	45	0.5 U	0.5 U	2300	160	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	6.5	26	0.5 U	0.5 U	230	32	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1.4	1.1	0.5 U	0.5 U	43	7.5	0.5 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	3.2	0.5 U	0.5 U	1 U	0.5 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	260	18	1.2	11	700	590	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	1.9 J	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1.2	0.5 U	0.5 U	1.2	5.6	3.7	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.96 J	1.6	0.5 U	0.5 U	12	3	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	200	35	0.5 U	0.6 J	800	460	0.5 U
74-85-1	ETHENE	ug/l	18	6.9	1 U	1 U	16	15	1.8 J
74-84-0	ETHANE	ug/l	7.9	3.2 J	1 U	1 U	1.5 J	5.3	160
74-82-8	METHANE	ug/l	220	100	14	20	150	190	16000
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U		0.0674 U	0.0674 U			0.0674 U
7440-70-2	CALCIUM	mg/l	368		382	517			483
7439-89-6	IRON	mg/l	0.153 J		0.0334 U	1.91			20.2
7439-95-4	MAGNESIUM	mg/l	143		123	603			114
7439-96-5	MANGANESE	mg/l	0.0512		0.0493	0.115			2.52
9/7/7440	POTASSIUM	mg/l	4.28		2.45	6.31			43.8
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	4.9		4.9	11.3			26.1
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	958		1070	2890			1.5 U
18496-25-8	SULFIDE	mg/l			0.45	0.054 U			0.64
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL							
DHBt	DHBt	cells/mL							
DHC	DHC	cells/mL							
TCE	TCE	cells/mL							
VCR	VCR	cells/mL							
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l							

EkonoI Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	OR-4SM OR-4SM_2014-08-20 7573283 LANCASTERLABS BPX19 WATER 8/20/2014 12:40 9/24/2014	OR-5SM OR-5SM_2014-08-13 7565470/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 14:45 9/24/2014	Dup of OR-5SM_2014-08-13 OR-5SM OR-50SM_2014-08-13 7565471 LANCASTERLABS BPX14 WATER 8/13/2014 12:01 9/24/2014	OR-6SM OR-6SM_2014-08-14 7567456/042LH/13056 LANCASTERLABS BPX15 WATER 8/14/2014 9:50 9/24/2014	OR-9SM OR-9SM_2014-08-20 7573286 LANCASTERLABS BPX19 WATER 8/20/2014 16:00 9/24/2014	OR-10SM OR-10SM_2014-08-20 7573288 LANCASTERLABS BPX19 WATER 8/20/2014 13:50 9/24/2014	OR-13SM OR-13SM_2014-08-13 7565472/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 15:45 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	1.3	1.2	6.2	1.3	0.94 J	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	1.8	1.4	2.5 U	0.5 U	3.9	7.4
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.5 U	0.5 U	0.5 U	3900	3.4	0.5 U	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.5 U	0.5 U	0.5 U	120	0.78 J	2.6	0.79 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	0.5 U	0.5 U	4.6 J	0.5 U	0.5 U	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	0.5 U	0.5 U	0.5 U	870	4.2	1.2	0.53 J
74-85-1	ETHENE	ug/l	1 UJ	2.9 J	2.7 J	310	16	46	3.4 J
74-84-0	ETHANE	ug/l	9.8 J	220	190	240	20	34	14
74-82-8	METHANE	ug/l	12000 J	19000	20000	8500	18000	10000	16000
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0735 J	0.0674 U	0.0693 J	0.0674 U	0.0674 U	0.0674 U	0.143 J
7440-70-2	CALCIUM	mg/l	522	344	333	552	192	408	321
7439-89-6	IRON	mg/l	34.3	7.62	7.47	4.66	0.0334 U	1.17	8.12
7439-95-4	MAGNESIUM	mg/l	152	54.6	52.8	180	40.9	181	112
7439-96-5	MANGANESE	mg/l	5.55	1.48	1.45	4.25	0.381	1.77	2.82
9/7/7440	POTASSIUM	mg/l	35.6	17.6	17.1	26.1	13.8	17.2	25.8
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	56.1	20.9	20.8	50.8	15.7	32.8	45.9
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	1.5 U	1.5 U	1.5 U	37.4	27.1	32.9	28.3
18496-25-8	SULFIDE	mg/l	0.34	1.4		28.6	74.5	23.4	17.7
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL		10200		21400			28.2
DHBt	DHBt	cells/mL		597		769			433
DHC	DHC	cells/mL		172000		760000			12700
TCE	TCE	cells/mL		126		1620			18.1
VCR	VCR	cells/mL		11400		55000			520
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l		0.5 U		0.5 U			0.5 U

Ekonomol Facility Validated Groundwater Analytical Results Wheatfield, New York 2nd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	OR-14SM OR-14SM_2014-08-14 7567457/042LH/13056 LANCASTERLABS BPX15 WATER 8/14/2014 9:15 9/24/2014	OR-15SM OR-15SM_2014-08-20 7573281 LANCASTERLABS BPX19 WATER 8/20/2014 16:20 9/24/2014	OR-18SM OR-18SM_2014-08-19 7571753 LANCASTERLABS BPX18 WATER 8/19/2014 14:10 9/24/2014	PMW-1D PMW-1D_2014-08-21 7574719 LANCASTERLABS BPX20 WATER 8/21/2014 15:40 9/24/2014	PMW-1S PMW-1S_2014-08-13 7565468/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 12:15 9/24/2014	PMW-2D PMW-2D_2014-08-15 7568103/042LH LANCASTERLABS BPX16 WATER 8/15/2014 10:05 9/24/2014	PMW-2S PMW-2S_2014-08-12 7564203/042LH/13056 LANCASTERLABS BPX13 WATER 8/12/2014 13:50 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	5 U	0.5 U	3.3	2.5	50 U	1.8
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	5 U	0.5 U	1.1	0.61 J	120	0.5 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	5 U	0.5 U	0.5 U	4.7	50 U	5.1
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	3.9	5 U	11	680	250	79000	35
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	5 U	0.5 U	0.93 J	0.5 U	50 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.5 U	5 U	0.8 J	2.4	14	180	6.3
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	5 U	0.5 U	0.84 J	1.3	2200	2.2
75-01-4	VINYL CHLORIDE	ug/l	14	5 U	12	300	210	18000	37
74-85-1	ETHENE	ug/l	19	1 UJ	38	730	440	1700	170
74-84-0	ETHANE	ug/l	9.7	7.6 J	18	25	390	14	290
74-82-8	METHANE	ug/l	18000	11000 J	14000	14000	7300	9600	10000
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.116 J	0.0674 U
7440-70-2	CALCIUM	mg/l	273	631	205	127	178	334	224
7439-89-6	IRON	mg/l	2.23	66	0.0334 U	63	0.0419 J	0.219 J	0.111 J
7439-95-4	MAGNESIUM	mg/l	134	116	53.3	8.6	18.2	134	25.4
7439-96-5	MANGANESE	mg/l	2.21	8.18	0.259	1.13	0.25	0.307	0.566
9/7/7440	POTASSIUM	mg/l	30.3	111	15.5	14.7	12.9	10.1	15.1
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	52	136	7.6	233	5.8	367	6.4
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	130	1.5 U	261	1.5 U	9.9	95.1	3.3 J
18496-25-8	SULFIDE	mg/l	21.2	0.069 J	51.1	0.14 J	14	115	13.8
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL	870				15600	115000	15500
DHBt	DHBt	cells/mL	284				620	539	512
DHC	DHC	cells/mL	43200				1700000	668000	1050000
TCE	TCE	cells/mL	20				960	2760	3790
VCR	VCR	cells/mL	2600				239000	20800	76500
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l	0.5 U				0.5 U		0.5 U

Ekonomol Facility Validated Groundwater Analytical Results Wheatfield, New York 2nd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-3D PMW-3D_2014-08-22 7576217 LANCASTERLABS BPX21 WATER 8/22/2014 9:50 9/24/2014	PMW-3S PMW-3S_2014-08-13 7565465/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 10:00 9/24/2014	PMW-4D PMW-4D_2014-08-21 7574720 LANCASTERLABS BPX20 WATER 8/21/2014 16:00 9/24/2014	PMW-4S PMW-4S_2014-08-20 7573284 LANCASTERLABS BPX19 WATER 8/20/2014 10:40 9/24/2014	PMW-5D PMW-5D_2014-08-14 7567463 LANCASTERLABS BPX15 WATER 8/14/2014 15:15 9/24/2014	PMW-5S PMW-5S_2014-08-12 7564197 LANCASTERLABS BPX13 WATER 8/12/2014 10:30 9/24/2014	PMW-6D PMW-6D_2014-08-19 7571744/042LH LANCASTERLABS BPX18 WATER 8/19/2014 8:30 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	25 U	10 U	50 U	2.5 U	50 U	25 U	5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	46 J	16 J	120	7.2	59 J	25 U	37
75-35-4	1,1-DICHLOROETHENE	ug/l	72	41	110	9.1	180	43 J	19
75-00-3	CHLOROETHANE	ug/l	25 U	10 U	50 U	2.5 U	50 U	25 U	5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	61000	26000	71000	6000	88000	29000	18000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	25 U	10 U	50 U	2.5 U	50 U	25 U	5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	94	480	140	160	200	570	45
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1200	110	370	39	1300	1700	890
75-01-4	VINYL CHLORIDE	ug/l	2000	5000	4100	240	7400	3700	3000
74-85-1	ETHENE	ug/l	340	1200	660	31	1400	330	1800
74-84-0	ETHANE	ug/l	33	320	36	47	41	60	36
74-82-8	METHANE	ug/l	8900	10000	9200	2900	12000	5800	10000
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.133 J	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	338	389	339	543	307	472	342
7439-89-6	IRON	mg/l	0.0334 U	0.214 J	0.0601 J	3.58	0.0334 U	0.427	0.156 J
7439-95-4	MAGNESIUM	mg/l	125	143	206	237	215	259	103
7439-96-5	MANGANESE	mg/l	0.468	1.57	0.387	1.07	0.386	1.74	0.625
9/7/7440	POTASSIUM	mg/l	14.8	11.7	9.33	3.75	8.08	3.73	9.16
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	234	18.5	196	23.9	142	7.1	291
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	129	347	281	820	413	2760 J-	325
18496-25-8	SULFIDE	mg/l	179	23.4	197	0.078 J	137	0.054 U	32.5
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL		106000					30500
DHBt	DHBt	cells/mL		110					3250
DHC	DHC	cells/mL		920000					1410000
TCE	TCE	cells/mL		1150					6220
VCR	VCR	cells/mL		77300					17100
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l		0.5 U					

EkonoI Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-6S PMW-6S_2014-08-20 7573282 LANCASTERLABS BPX19 WATER 8/20/2014 14:30 9/24/2014	PMW-7D PMW-7D_2014-08-21 7574714 LANCASTERLABS BPX20 WATER 8/21/2014 11:15 9/24/2014	Dup of PMW-7D_2014-08-21 PMW-7D PMW-7D_2014-08-21 7574715 LANCASTERLABS BPX20 WATER 8/21/2014 12:01 9/24/2014	PMW-7S PMW-7S_2014-08-20 7573289 LANCASTERLABS BPX19 WATER 8/20/2014 8:15 9/24/2014	PMW-8D PMW-8D_2014-08-22 7576216 LANCASTERLABS BPX21 WATER 8/22/2014 10:30 9/24/2014	PMW-8S PMW-8S_2014-08-19 7571746 LANCASTERLABS BPX18 WATER 8/19/2014 9:55 9/24/2014	PMW-9D PMW-9D_2014-08-19 7571751 LANCASTERLABS BPX18 WATER 8/19/2014 13:05 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	50 U	50 U	0.5 U	10 U	5.5	25 U
75-34-3	1,1-DICHLOROETHANE	ug/l	3	97 J	92 J	120	20	6.2	25 U
75-35-4	1,1-DICHLOROETHENE	ug/l	5.5	78 J	65 J	0.5 U	38	1.4	210
75-00-3	CHLOROETHANE	ug/l	1 U	50 U	50 U	2.1	10 U	0.5 U	25 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	3300	57000	53000	5.6	23000	540	110000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U	50 U	50 U	0.5 U	10 U	0.5 U	85
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	93	110	110	0.5 U	65	5.5	160
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	3.8	330	290	0.5 U	1800	2.5	16000
75-01-4	VINYL CHLORIDE	ug/l	1300	2700	2400	1.6	3100	400	18000
74-85-1	ETHENE	ug/l	140 J	380	380	1 U	270	280	3300
74-84-0	ETHANE	ug/l	32 J	36	41	1 U	19	24	59
74-82-8	METHANE	ug/l	11000 J	7300	8000	4.3 J	3200	8400	8800
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0739 J	0.145 J	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	509	302	306	259	436	224	303
7439-89-6	IRON	mg/l	24	0.0334 U	0.0334 U	2.35	0.0334 U	0.0996 J	1.27
7439-95-4	MAGNESIUM	mg/l	186	287	292	247	492	131	101
7439-96-5	MANGANESE	mg/l	4.57	0.284	0.285	0.153	0.423	0.461	0.509
9/7/7440	POTASSIUM	mg/l	23.5	27.5	27.6	5.12	7.02	8.07	9.34
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	42.9	90.4	88.9	16.7	52.9	13.9	160
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	134	942	990	1180	2010	503	72.8
18496-25-8	SULFIDE	mg/l	0.22	168		0.054 U	142	25.7	48
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL							
DHBt	DHBt	cells/mL							
DHC	DHC	cells/mL							
TCE	TCE	cells/mL							
VCR	VCR	cells/mL							
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l							

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-9S PMW-9S_2014-08-13 7565469/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 13:20 9/24/2014	PMW-10D PMW-10D_2014-08-21 7574712 LANCASTERLABS BPX20 WATER 8/21/2014 10:05 9/24/2014	PMW-10S PMW-10S_2014-08-12 7564205/042LH/13056 LANCASTERLABS BPX13 WATER 8/12/2014 16:20 9/24/2014	PMW-11D PMW-11D_2014-08-13 7565466/042LH/13056 LANCASTERLABS BPX14 WATER 8/13/2014 9:45 9/24/2014	PMW-11S PMW-11S_2014-08-19 7571755 LANCASTERLABS BPX18 WATER 8/19/2014 16:25 9/24/2014	PMW-12D PMW-12D_2014-08-18 7569231 LANCASTERLABS BPX17 WATER 8/18/2014 11:25 9/24/2014	PMW-13D PMW-13D_2014-08-22 7576215 LANCASTERLABS BPX21 WATER 8/22/2014 10:30 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	5 U	160	0.5 U	17000	5 U	100 U	82 J
75-34-3	1,1-DICHLOROETHANE	ug/l	5 U	360	0.5 U	800	41	100 J	130
75-35-4	1,1-DICHLOROETHENE	ug/l	13	150	0.5 U	340	31	260	280
75-00-3	CHLOROETHANE	ug/l	5 U	50 U	0.5 U	10 U	5 U	100 U	50 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	8900	87000	0.5 U	5100	15000	120000	82000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	5 U	50 U	0.5 U	54	5 U	150 J	55 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	85	110	0.5 U	22	220	230	83 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	5000	800	0.87 J	340	230	19000	8900
75-01-4	VINYL CHLORIDE	ug/l	110	15000	0.5 U	570	2900	40000	15000
74-85-1	ETHENE	ug/l	13	6500	1 U	39	270	12000	3900
74-84-0	ETHANE	ug/l	13	28	1 U	5.7	35	41	24
74-82-8	METHANE	ug/l	720	8300	3 U	410	5000	7200	7000
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	477	367	434	253	558	302 J+	345
7439-89-6	IRON	mg/l	0.0462 J	13.1	0.0334 U	0.0829 J	1.36	25.9	14.7
7439-95-4	MAGNESIUM	mg/l	582 J+	63.7	523	91.6	302	70.4 J+	64.9
7439-96-5	MANGANESE	mg/l	0.442	0.8	0.0448	0.193	0.619	0.555	0.803
9/7/7440	POTASSIUM	mg/l	7.6	3.69	6.71	3.18	4.24	10.8	7.41
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	6	434	3.2	11.3	3.3	395	304
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	2630	7.7	2190	472	1610	10.2	13.7
18496-25-8	SULFIDE	mg/l	0.054 U	11.2	0.054 U	70.4	0.054 U	14.6	15.5
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL	1.7		1.9	205000			
DHBt	DHBt	cells/mL	45.4		1180	2950			
DHC	DHC	cells/mL	98.8		37.6	758000			
TCE	TCE	cells/mL	0.8		0.7	9070			
VCR	VCR	cells/mL	0.2 J		0.1 J	47200			
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l	0.5 U		0.5 U	0.5 U			

			Dup of PMW-14D_2014-08-18						
Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-14D PMW-14D_2014-08-18 7569234 LANCASTERLABS BPX17 WATER 8/18/2014 14:05 9/24/2014	PMW-14D PMW-140D_2014-08-18 7569235 LANCASTERLABS BPX17 WATER 8/18/2014 12:01 9/24/2014	PMW-15D PMW-15D_2014-08-12 7564202/042LH/13056 LANCASTERLABS BPX13 WATER 8/12/2014 13:40 9/24/2014	PMW-16D PMW-16D_2014-08-18 7569232 LANCASTERLABS BPX17 WATER 8/18/2014 11:45 9/24/2014	PMW-17D PMW-17D_2014-08-12 7564200/042LH/13056 LANCASTERLABS BPX13 WATER 8/12/2014 10:30 9/24/2014	RMW-1D RMW-1D_2014-08-15 7568102 LANCASTERLABS BPX16 WATER 8/15/2014 9:45 9/24/2014	RMW-2D RMW-2D_2014-08-14 7567461/042LH LANCASTERLABS BPX15 WATER 8/14/2014 15:10 9/24/2014
CAS NO.	COMPOUND	UNITS:							
	VOLATILES								
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	44	30	51000	6300	29	210	250 U
75-34-3	1,1-DICHLOROETHANE	ug/l	790	730	4000	1200	72	9.7	250 U
75-35-4	1,1-DICHLOROETHENE	ug/l	8.9 J	6.1 J	970	400	3.3	6.9	610
75-00-3	CHLOROETHANE	ug/l	13 J	5.7 J	50 U	100 U	1	0.5 U	250 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	6200 J	4200 J	9400	170000	310	450	310000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	5 U	5 U	620	520	2.5	2.2	1500
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	56	54	50 U	170 J	0.64 J	1.6	250 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	76 J	36 J	5200	35000	92	15	310000
75-01-4	VINYL CHLORIDE	ug/l	2600	2200	2200	6100	75	14	1600
74-85-1	ETHENE	ug/l	15000	16000	210	810	15	1 U	440
74-84-0	ETHANE	ug/l	64	62	76	22	17	15	36
74-82-8	METHANE	ug/l	19000	20000	1900	3200	740	72	860
	DISSOLVED METALS								
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	325 J+	319 J+	278	334 J+	125	306	413
7439-89-6	IRON	mg/l	90.5	97.9	0.234 J	0.216 J	0.0558 J	0.403	5.86
7439-95-4	MAGNESIUM	mg/l	112 J+	113 J+	91.3	96.9 J+	42.9	112	101
7439-96-5	MANGANESE	mg/l	0.753	0.746	0.251	0.52	0.721	0.165	0.526
9/7/7440	POTASSIUM	mg/l	10.5	11	3.87	5.04	5.56	3.4	5.7
	WET CHEMISTRY								
TOC	TOTAL ORGANIC CARBON	mg/l	682	788	158	347	67.5	4	410
	DISSOLVED WET CHEMISTRY								
14808-79-8	SULFATE (AS SO4)	mg/l	1.6 J	1.5 U	32.9	19.7	8.8	819	221
18496-25-8	SULFIDE	mg/l	3.9		139	132	105	5.2	35.7
	MICRO GENE ANALYSIS								
BVC	BVC	cells/mL			420000		456000		379000
DHBt	DHBt	cells/mL			15300		5520		4480
DHC	DHC	cells/mL			2100000		2990000		1950000
TCE	TCE	cells/mL			34700		27600		10000
VCR	VCR	cells/mL			4730		31600		71900
	MICROSEEPS DATA								
74-86-2	Acetylene	ug/l			0.5 U		0.5 U		

EkonoI Facility Validated Groundwater Analytical Results Wheatfield, New York 2rd Quarter 2014 (August)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	RMW-3D RMW-3D_2014-08-21 7574718 LANCASTERLABS BPX20 WATER 8/21/2014 15:32 9/24/2014	RMW-4D RMW-4D_2014-08-21 7574717 LANCASTERLABS BPX20 WATER 8/21/2014 13:55 9/24/2014
CAS NO.	COMPOUND	UNITS:		
	VOLATILES			
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	9100	50 U
75-34-3	1,1-DICHLOROETHANE	ug/l	180	70 J
75-35-4	1,1-DICHLOROETHENE	ug/l	86	80 J
75-00-3	CHLOROETHANE	ug/l	5 U	50 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	2100	57000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	6.3 J	50 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	6.8 J	93 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	39	1500
75-01-4	VINYL CHLORIDE	ug/l	71	3500
74-85-1	ETHENE	ug/l	3.8 J	740
74-84-0	ETHANE	ug/l	3.3 J	38
74-82-8	METHANE	ug/l	60	10000
	DISSOLVED METALS			
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	279	303
7439-89-6	IRON	mg/l	0.0382 J	0.0512 J
7439-95-4	MAGNESIUM	mg/l	93.6	108
7439-96-5	MANGANESE	mg/l	0.203	0.358
9/7/7440	POTASSIUM	mg/l	3.07	4.6
	WET CHEMISTRY			
TOC	TOTAL ORGANIC CARBON	mg/l	3.9	226
	DISSOLVED WET CHEMISTRY			
14808-79-8	SULFATE (AS SO4)	mg/l	637	131
18496-25-8	SULFIDE	mg/l	21.5	154
	MICRO GENE ANALYSIS			
BVC	BVC	cells/mL		
DHBt	DHBt	cells/mL		
DHC	DHC	cells/mL		
TCE	TCE	cells/mL		
VCR	VCR	cells/mL		
	MICROSEEPS DATA			
74-86-2	Acetylene	ug/l		

ATTACHMENT D
SITE ANALYTICAL DATA – ALL SITE WELLS

EKONOL FACILITY

Well Id: INJ-01

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	840 J	100000	23000	5000 U	5000 U	1600 J	7	17	78	5000 U	5000 U	5000 U	6.46	1480								
07/2008	5000 UJ	2600 J	150000 J	380 J	5000 UJ	1600 J	9.2 J	52 J	100 J	5000 UJ	5000 UJ	5000 UJ	202 J	1150 J								
12/2008	100 J	14000	120000 J	1100 J	220 J	3500	6.4	12	66	1300 U	62 J	1300 U	441	260								
10/2009	110 J	19000	99000	300 J	260 J	3500	11	110	440	1000 U	72 J	1000 U	365	991	0.0394 J	247						
07/2010	80 U	9900	83000	170 J	120 J	3700	40	330	1000	80 U	100 U	100 U	545	130	4.72	169						
06/2011	600 J	90000	99000	180 J	290 J	3000	12	93	170	160 U	200 U	200 U	51	1390	0.0308 J	117						
08/2011	390 J	44000	110000	240 J	220 J	2900	22	260	720	500 U	500 U	500 U	239	270	0.0878 J	272						
11/2011	660	54000	87000	130 J	200 J	3500	21	540	2800	110 J	500 U	500 U	139	464 J	0.127 J	190						
03/2012	470	29000	48000	88 J	110	3000	11	100	1800	87 J	37 J	100 U	32.4	1790 J	0.2 U	203						
06/2012	570	51000	34000	52 J	82 J	1100	13	76	1300	1000	83 J	50 U	25.6	261 J	0.04 J	148						
09/2012	450	32000	49000	80 J	120	5700	89	440	4300	290	58 J	20 U	79.5	54.2	0.0484 J	121						
12/2012	140 J	3600	100000	100 J	90 J	2800	28	310	1800	86 J	100 U	100 UJ	1640	498	0.812	170						
04/2013	84 J	5300	150000	220 J	110 J	3600	13	190	1700	80 U	140 J	100 U	1060	304	1.32	169						
07/2013	87 J	4100	120000	150 J	91 J	3900	18	370	1600	80 UJ	120 J	100 U	780	202	20.5	61.8						
10/2013	400 U	3900	140000	400 U	400 U	4000	33	610	2100	400 U	500 U	500 U	715	66.7	4.47	128						
12/2013	200 U	3200	140000	200 U	200 U	4300	30	620	3000	200 U	250 U	250 U	571	126	1.2	171						
04/2014	54 J	8800	160000	260	230	11000	24	1200	4800	50 U	89 J	50 U	440	25.8	2.92	87.1	6.23					
08/2014	50 U	7700	94000	210	160	19000	37	4600	9100	50 U	70 J	50 U	388	74.9	1.2	94.6	6.48					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-02

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2010	40 U	50 U	78000	240 J	170 J	29000	24 U	340	6300	40 U	50 U	50 U	121	3.5 J	0.24	62.7						
08/2011	250 U	93 J	90000	110 J	170 J	19000	31	1300	400	250 U	250 U	250 U	194	2.5 J	11.4	0.68						
03/2012	5.9 J	190	4900	8.4 J	18 J	1500	6.5	140	350	25 U	25 U	25 U	92.5	3.1 J	1.84	93.1						
06/2012	16 U	38 J	14000	26 J	51 J	4200	18 J	360 J	1200	16 UJ	20 U	20 U	97.8	1.7 J	1.32 J	24.1						
09/2012	66	5700	13000	26 J	110	2100	20	220	1400	9.4 J	10 U	10 U	50.1	2.6 J	0.339	5.8						
12/2012	93 J	3600	54000	2700	430 J	8800	17	110	1500	95 J	230 J	100 U	1940	8.4	425	9.5						
04/2013	190 J	26000	200000	220 J	160 U	2500	13	140	1400	160 U	200 U	200 U	1170	270	13.4	135						
07/2013	80 U	6200	140000	230 J	180 J	2400	45	490	1200	80 UJ	100 U	100 U	1040	5 J	241	5.5						
10/2013	160 U	270 J	190000	240 J	340 J	3800	86	690	1500	160 U	200 U	200 U	962	1.5 U	338	0.36						
12/2013	95 J	8600	160000	240 J	310 J	5800	51	440	1000	80 U	100 U	100 U	690	42.2	22.4	58						
04/2014	50 U	930	65000	120	67 J	5100	29	620	2000	50 U	50 U	50 U	611	1.6 J	182	2.3	6.02					
08/2014	55	4400	44000	160	58	12000	63	3700	11000	25 U	37 J	25 U	258	18	2.53	60.2	6.55					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-04

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
10/2009	240 J	20000	110000	290 J	290 J	3200	10	70	300	1000 U	120 J	1000 U	454	506	0.0381 J	221						
07/2010	150 J	17000	130000	260 J	170 J	6200	19	260	1400	80 U	120 J	100 U	469	73.3	0.442	155						
08/2011	870	74000	84000	130 J	200 J	1300	23	200	660	250 J	500 U	500 U	259	146	1.52	257						
03/2012	720	40000	48000	83 J	77 J	1300	20	250	3300	170 J	96 J	250 U	34.9	2790	0.256	254						
06/2012	780	54000	69000	89 J	160 J	2200	21	370	2600	730 J	130 J	100 U	56.5	166 J	0.0333 U	176						
09/2012	710	30000	57000	85 J	130 J	3400	60	400	3300	390	78 J	50 U	41.2	11.4 J	0.0333 U	149						
12/2012	170 J	3300 J	77000 J	80 UJ	80 UJ	780 J	13	340	3500	120 J	100 J	100 UJ	782	680	0.923	176						
04/2013	160 U	2400	110000	160 U	160 U	2500	26	440	3700	160 U	200 U	200 U	302	833	0.365	133						
07/2013	80 U	950	120000	110 J	86 J	2700	29	760	1900	80 U	150 J	100 U	709	62.3	5.78	140						
10/2013	80 U	100 U	65000	80 U	80 U	5000	74	830	2700	80 U	100 U	100 U	1150	1.5 U	479	0.17						
12/2013	80 U	1100	120000	130 J	84 J	2500	26	520	2300	80 U	120 J	100 U	546	13.4	0.792	117						
04/2014	20	53	15000	22	17	880	14	80	790	5 U	10	5 U	135	1.9 J	11.5	0.68	6.15					
08/2014	7.4	8.5	1700	3.4	2.5	130	9.9	35	3600	0.5 U	1.3	0.5 U	143	1.5 U	46.7	0.094 J	6.85					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-05

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2010	800 J	270000	87000	190 J	210 J	1100	89	1400	69	160 U	200 U	200 U	258	1250	2.24	146						
08/2011	600	110000	99000	180 J	250 J	2300	80	800	360	500 U	500 U	500 U		460	0.0959 J	217						
09/2011													292									
03/2012	730	61000	48000	92	100	1600	18	140	1900	170	55	10 U	60.7	1250	0.2 U	161						
06/2012	650	45000	27000	42 J	62 J	290	15	120	730	1100 J	76 J	50 U	26.8	214 J	0.0333 U	156						
09/2012	360 J	27000	75000	80 U	230 J	830	150	1000	1500	220 J	100 U	100 U	124	23.7	2.52	61.3						
12/2012	230 J	17000	92000	80 U	80 U	1100	22	180	2500	80 U	100 U	100 U	1250	373	0.539	273						
04/2013	200 J	27000	110000	160 U	160 U	1700	28	290	4400	160 U	200 U	200 U	566	500	0.528	211						
07/2013	230 J	29000	99000	160 U	160 U	1800	20	160	3000	160 U	200 U	200 U	477	205	0.582	210						
10/2013	230 J	29000	130000	160 U	160 U	1400	54	390	2400	160 U	200 U	200 U	465	211	0.728	234						
12/2013	270 J	30000	140000	160 J	130 J	1900	50	350	4000	80 U	110 J	100 U	434	333	0.633	202						
04/2014	170	17000	150000	100 J	97 J	2500	32	470	4200	50 U	62 J	50 U	499	47	4.65	103	5.77					
08/2014	110	9400	150000	150	130	10000	51	1200	5600	50 U	81 J	50 U	467	152	2.39	119	6.53					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-07D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	1400 J	580000	7900	400 U	400 U	500 U	11	7.7	73	400 UJ	500 U	500 U	47.4	971	1.6	2.2	6.8					
08/2011	1500	270000	47000	500 U	170 J	140 J	9.4	32	45	620	500 U	500 U	286	562	15.3	26.2	6.06					
11/2011	1600	240000	63000	500 U	260 J	500 U	5.5	7.9	34	1400	500 U	500 U	149	317	0.32	98.6	6.47	6.0E+01	2.2E+04	2.3E+02	3.5E+02	1.6E+02
03/2012	2200 J	380000	100000	2500 U	2500 U	2500 U	12	16	110	530 J	2500 U	2500 U	117	413 J	0.931	40.3	6.33	1.1E+04	3.4E+04	2.9E+04	2.1E+03	1.5E+04
06/2012	2300	290000	56000	64 J	200	150	13	20	170	870	53 J	20 U	62.9	407	0.0333 U	97.6	6.56	2.8E+02	5.6E+03	1.6E+03	3.4E+01	2.2E+02
09/2012	2400	250000	64000	80 U	220 J	250 J	13	24	220	760	100 U	100 U	66.8	85.5 J	0.0333 U	161	7.03	2.2E+03	1.1E+04	2.4E+03	2.9E+03	1.6E+03
11/2012	2400	350000	61000	110 J	210 J	200 J				500	100 U	100 U	70.8									
12/2012	1200	330000	75000	84 J	100 J	260 J	8.8	18	140	230 J	100 U	100 U	941	92.4	45.7	1.5	6.27	1.1E+01	1.1E+01	3.0E+04	5.7E+04	1.1E+04
04/2013	1200	340000	280000	1900 J	460	1300	40	340	470 J	48	71	1 U	935	293	72.1	0.17	6.7	1.4E+05	3.1E+05	2.3E+06	2.2E+06	3.6E+04
07/2013	1600	360000	380000	240 J	870	3800	22	290	370	120 J	100 U	100 U	703	327	44.3	0.47	6.64	4.6E+04	2.4E+04	4.8E+04	3.8E+04	4.5E+02
10/2013	1200 J	300000	280000	800 U	800 U	5500	37	430	590	800 U	1000 U	1000 U	424	341	37.8	1.1	6.38	5.0E+04	1.4E+04	1.7E+05	1.7E+05	2.2E+03
12/2013	840	220000	360000	260 J	850	2400	20	340	740	80 U	100 U	100 U	251	158	25	0.66	6.26	8.8E+04	3.6E+03	2.7E+05	2.7E+05	1.4E+04
04/2014	450	120000	380000	390	900	4800	22	270	440	100 U	100 U	100 U	197	122	22.4	0.59	6.19	8.9E+04	7.3E+03	2.9E+05	8.7E+02	1.4E+04
08/2014	420	160000	380000	270	940	11000	38	430	1000	100 U	100 U	100 U	258	153	23.6	1.4	6.6	4.1E+05	9.6E+03	2.9E+06	1.5E+04	4.7E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-08D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	63	2100	8200	14 J	73	210 J	3 J	11	49	1900	100	5 U	4.7	843	6.7	0.33	6.91					
08/2011	11 J	990	9100	21 J	25	82	5.6	3.5 J	35	1200	58	25 U	283	422	0.702	62.6	6.11					
11/2011	32	340	4100	9.2 J	22 J	79	2.4 J	2.4 J	63	2300	82	25 U	301	321	1.16	45	6.38					
03/2012	10 J	220	1700	4.2 J	21 J	65	5 U	5 U	180	2400	110	25 U	996	437	0.109 J	93.8	6.24					
06/2012	4 U	49	5500	6.8 J	12 J	250	8	6.1	15000	42	41	5 U	190	18.7	20.2	0.13 J	7.62					
09/2012	8.6	1400	2400	7.7	27	350	3.6 J	19	2700	760	99	1 U	46.5	121 J	0.0333 U	106	6.97					
12/2012	8 U	27 J	9500	27 J	19 J	180	5.6	12	7300	190	28 J	10 UJ	299	1.6 J	4.83	12.1	6.21					
04/2013	4 U	6.3 J	9800	12 J	15 J	2300	6.7	63	16000	110	200	5 U	463	7.3 J	3.36	55.3	7.47					
07/2013	8 U	10 U	3500	16 J	8 U	9400	23	450	20000	40 J	320	10 U	509	1.5 U	132	0.069 J	7.12					
10/2013	16 U	45 J	16000	16 U	16 U	2900	16	2300	7500	340	510	20 U	544	6.8	5.66	90.9	6.26					
12/2013	4 U	14 J	7600	21 J	8.3 J	2300	24	5100	19000	180	610	5 U	545	3.1 J	31.8	2.8	6.1					
04/2014	9.8	44	22000	36	42	2800	16	2100	12000	640	730	6.9	405	6.8	4.6	65.3	6.95					
08/2014	0.94 J	3.8	740	31	4.8	610	59	6600	24000	110	690	11	443	2.4 J	10	21.5	7.39					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-09D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	370	22000	10000	16 U	68 J	190	2.4 J	11	52	790 J	65 J	20 U	3.7	835	0.628	1.3	6.55					
08/2011	30 J	910	14000	30 J	52	36 J	2 J	2.2 J	16	3800	56	50 U	251	354	1.66	66	5.96					
11/2011	8.6 J	130	8700	29 J	25 J	100	15	7	38	360	150	50 U	353	2.3 J	90.4	5.8	6.05	3.6E+01	2.6E+03	6.0E+01	1.2E+02	5.0E+02
03/2012	10 U	14	1600	4.2 J	4 J	17	1.3 J	1.2 J	75	22	8 J	10 U	31.3	5 U	13.3	0.16 U	7.45	7.2E+02	6.9E+02	4.5E+02	1.1E+02	2.7E+01
06/2012	1.6 U	25	550	1.6 U	1.7 J	21	1 U	1 U	97	73 J	3.9 J	2 U	26.7	20 J	0.539	3.9	7.67	1.8E+02	1.2E+02	4.8E+02	4.1E+00	7.8E+01
09/2012	0.99 J	32	250	0.8 U	0.98 J	56	1 U	1 U	370	24	1.8 J	1 U	10.9	3 J	0.195 J	2.4	8.03	3.9E+03	2.6E+03	3.5E+03	2.3E+01	1.1E+03
11/2012													51.5									
12/2012	270	29000	90000	51 J	43 J	340	13	27	140	190	80 J	20 U	1320	21.9	23.6	21.5	5.91	2.8E+02	1.1E+02	2.7E+04	5.3E+04	1.2E+04
04/2013	110	12000	81000	58	69	720	18	80	6000 J	170	100	10 U	709	15.9	67.5	13.5	6.27	2.8E+03	6.9E+03	1.7E+04	1.1E+04	1.3E+01
07/2013	80 U	3700	120000	110 J	140 J	13000	27	680	3600	150 J	210 J	100 U	679	31.9	67.1	5.1	6.34	2.9E+05	2.6E+03	4.3E+05	2.0E+05	3.1E+03
10/2013	400 U	20000	250000	400 U	400 U	11000	23	1100	1600	400 U	500 U	500 U	784	44.2	15.3	27.5	6.03	1.9E+05	9.7E+03	1.0E+06	1.7E+06	1.8E+04
12/2013	80 J	12000	110000	73 J	190 J	5900	12	730	3500	150 J	140 J	50 U	321	20.8	12.3	11.3	6.29	5.4E+05	1.4E+04	9.7E+05	3.6E+05	4.0E+04
04/2014	0.5 U	8.6	1800	11	4.1	890	7	1500	5000	5.3	21	0.5 U	89.5	1.5 U	34.7	0.18	6.84	5.0E+05	3.1E+03	3.4E+06	1.1E+04	3.6E+05
08/2014	74 J	11000	93000	110	170	14000	32	5400	11000	100 J	120	50 U	279	8.4	9.08	10.2	6.91	1.6E+05	1.9E+03	1.8E+06	9.2E+03	9.3E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-10D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	140	1800	2900	8 U	130	110	1 U	3.4 J	23	12000	100	10 U	4.4	706 J	0.399	0.4	7.69					
08/2011	18 J	120	2600	8.7 J	41 J	73	5 U	2.4 J	13 J	5900	67	50 U	55.7	569	0.688	20.3	6.81					
11/2011	5.2	59	1200	6	15	51	3.9 J	2.4 J	82	1100	60	5 U	61.6	93	2.64	30.2	7.08	2.1E+01	4.9E+03	1.8E+01	1.4E+00	6.9E+00
03/2012	3.1 J	18	450	2.1 J	9.7	110	1.2 J	2.9 J	47	620	30	5 U	15.1	228	0.0172 J	18.1	6.97	8.4E+03	7.8E+03	2.1E+04	5.3E+04	1.2E+03
06/2012	5.8	23	710	4.1 J	16	210	1.1 J	23	85	1400 J	59	1 U	17.7	615 J	1.36	23.9	7.54	1.3E+03	2.5E+03	1.1E+04	4.9E+03	9.7E+03
09/2012	4.9 J	14	560	3.2 J	17	190	1.8 J	40	960	1000	55	1 U	17.4	425	0.0727 J	19.7	8.03	1.4E+03	1.2E+03	3.6E+04	1.2E+04	4.2E+04
11/2012													17.3									
12/2012	11 J	220	8000	16 J	19 J	220	2 J	6.3	170	590	86	5 U	152	53.6	0.0585 J	162	6.51	7.9E+01	3.6E+01	2.9E+02	2.6E+02	9.1E+01
04/2013	16	47	9900	19	33	1200	19	430	3500	400	280	2 U	629	4.1 J	28.2	51.2	6.03	2.4E+05	1.4E+04	3.7E+06	5.4E+06	3.4E+04
07/2013	8 U	18 J	4500	11 J	18 J	1100	24	890	6100	760	400	10 U	553	71	36.3	70.5	6.4	3.8E+04	2.4E+04	6.5E+05	2.6E+05	1.4E+04
10/2013	17 J	13 J	5200	16 J	150	770	15	470	9100	9900	1700	5 U	218	3.2 J	2.45	77.6	6.22	1.3E+04	3.9E+03	4.7E+05	1.8E+05	8.8E+04
12/2013	25 J	18 J	8000	22 J	170	840	12	190	4100	9100	1500	10 U	280	7.8	1.93	91.8	6.55	2.2E+04	7.7E+03	2.1E+05	1.2E+05	3.1E+04
04/2014	0.85 J	1.3	8.5	0.5 U	0.5 U	1.8	12	2 J	720	2.8	0.8 J	0.5 U	24.2	31.3	0.383 J	0.25	7.76	6.4E+02	2.6E+02	1.2E+03	5.2E+01	8.1E+02
08/2014	18	12	7600	32	130	2800	11	190	5600	2500	600	5 U	74.3	44.4	0.0599 J	138	7.12	4.2E+04	2.6E+03	2.8E+05	1.6E+03	5.4E+03

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-11D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
04/2012	33 J	2500	8200	19 J	35 J	270	5 U	16	53	970	82	50 U	3.8	475 J	0.295	15.3						
06/2012	27	3500	14000	29	51	390	1.8 J	22	98	980 J	98	5 U	4.1	1070 J	0.149 J	17.1	6.87	1.2E+04	2.4E+02	2.1E+04	6.0E+02	5.2E+03
09/2012	8.6 J	500	14000	33 J	68	1300	11	120	370	1000	130	10 U	3.5	812 J	0.161 J	23.9	6.73					
11/2012													7.9									
12/2012	590	200000	83000	250 J	140 J	2700	83	460	2700	170 J	100 U	100 UJ	652	337	4.67	49.1	6.18					
04/2013	360	72000	170000	170	290	1700	62	420	970 J	170	78	10 U	270	325	0.457	206	6.68					
07/2013	310 J	40000	180000	180 J	320 J	3500	70	440	2500	160 U	200 U	200 U	265	334	0.0838 J	183	6.47					
10/2013	80 U	5200	72000	99 J	140 J	2200	13	85	1700	80 U	100 U	100 U	165	195	0.194 J	97	6.28					
12/2013	520	160000	110000	110 J	280 J	2800	16	170	2300	80 UJ	100 U	100 U	202	84.3	3.11	45.2	6.44					
04/2014	43 J+	7100	29000	58	75	2100	5.7	130	1500	11	19	5 U	66.8	23.1 J+	0.156 J	40.4	7.14					
08/2014	320	140000	230000	150 J	500	6800	34	550	5600	100 U	100 U	100 U	202	164	0.562	78.5	6.28					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-12D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
03/2012																	6.25					
04/2012	43 J	3900	63000	57 J	100 J	1100	23	280	2200	110 J	250 U	250 U	17.4	251 J	0.0427 J	48.7						
06/2012	200	19000	17000	34 J	56 J	510	49	210	4100	540	31 J	20 U	17.5	267	0.0506 J	128	7.38					
09/2012	17	820	760	1.6 U	3.1 J	38	1 U	1.5 J	23	1.6 U	2 U	2 U	8.6	24.7	0.142 J	29.2	9.06					
11/2012													4.8									
12/2012	220 J	14000	120000	160 U	160 U	710 J	15	55	390	160 UJ	200 UJ	200 U	1420	86.5	8.7	76.8	5.89					
04/2013	130	10000	94000	110	80	2100	92	990	5900 J	120	70	10 U	659	36.1	18.2	31.3	6.34					
07/2013	320 J	31000	130000	160 U	160 U	2800	63	1200	4400	160 U	200 U	200 U	658	92.3	17.6	9.7	5.84					
10/2013	330 J	34000	210000	190 J	310 J	9200	85	2200	5100	160 U	200 U	200 U	668	176	43.3	80.8	6.06					
12/2013	380 J	42000	100000	110 J	170 J	9200	30	1800	4200	80 U	100 U	100 U	308	65.2	12.2	22.8	6.47					
04/2014	53	3900	21000	53	42 J	2000	49	690	5100	25 U	25 U	25 U	56.8	9.9	0.948	9.5						
08/2014	2.3	6	110	0.85 J	0.5 U	50	4 J	19	2000	0.5 U	0.5 U	0.5 U	58	1.5 U	11.7	0.24	7.05					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: INJ-13D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
04/2012	340 J	47000	44000	40 J	92 J	260	1.6 J	21	57	710	79 J	250 U	15.6	820 J	0.0398 J	25						
06/2012	810	140000	26000	80 U	140 J	320 J	15	91	260	810	100 U	100 U	30	566	0.0333 U	108	6.8					
09/2012	990	100000	21000	80 U	80 U	640	13	63	310	680	100 U	100 U	13.9	703	0.0333 U	72	6.79					
11/2012													7.7									
12/2012	160 U	9800	130000	320 J	160 U	1600	34 J	130 J	1200	160 UJ	200 UJ	200 U	1420	57.2	4.78	64.4	6.02					
04/2013	120	15000	110000	130	100	1800	100	680	4500 J	110	79	10 U	767	80.4	1.97	65	6.47					
07/2013	290 J	33000	120000	140 J	130 J	2300	69	1400	5100	80 U	100 U	100 U	608	135	2.13	79.7	6.03					
10/2013	160 U	8300	86000	160 U	160 U	9400	52	5200	8500	160 U	200 U	200 U	530	133	2.2	60.7	6.07					
12/2013	110	17000	78000	98 J	100	7800	37	1500	3700	50 J	60 J	20 U	288	62.1	3.34	20.7	6.41					
04/2014	50 U	4300	65000	100	100	4700	77	1400	8000	50 U	50 U	50 U	142	37.2	0.107 J	51.6	7.04					
08/2014	50 U	1000	51000	100	95 J	6500	70	2700	15000	50 U	50 U	50 U	164	45.9	0.0627 J	62.7	6.85					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 1S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	19	150	6.9	2.2 J	19	1.1 J	1.7 J	55	0.8 U	1 U		2.2	2140 J	1.98							
05/2009	5.0 U	7.1	150	6.0	1.6 J	16	1.0 U	1.0 U	29	5.0 U	5.0 U	5.0 U	3.0	2130	1.180	1.0 U						
07/2010	0.8 U	2.7 J	100 J	4.7 J	1.2 J	10	1 U	1 U	20	0.8 U	1 U	1 U	2.9	2350 J	2.44	0.16 J						
06/2011	0.8 U	2 J	88	3.6 J	0.8 U	5.3	1 U	1 U	15 J	0.8 U	1 U	1 U	3	2830	1.8	0.076 J	7					
08/2011	5 U	1.1 J	96	3.9 J	5 U	7.5	5 U	5 U	14 J	5 U	5 U	5 U	3.2	2750	1.56	0.093 J	7.03					
11/2011	5 U	3.5 J	120	5.1	1.2 J	14	5 U	5 U	25	5 U	5 U	5 U	1.3	2110	1.77	0.25						
03/2012	5 U	4.4 J	120	4.5 J	1.1 J	5.2	5 U	5 U	14 J	5 U	5 U	5 U	2.8	2420 J	0.421	0.24	6.12					
06/2012	0.8 U	14	170	7.4	2 J	15	1 U	1 U	32	0.8 U	1 U	1 U	2.6	2260	1.14	0.054 U						
09/2012	0.8 U	1.5 J	110	4.4 J	0.84 J	7.8	1 U	1.2 J	29	0.8 U	1 U	1 U	2.7	2120	1.02	0.054 U	7.21					
12/2012	0.8 U	17	170	7.2	2.1 J	15	1 U	1.2 J	37	0.8 U	1 U	1 U	1.1	2130	2.55	0.054 U	6.7					
04/2013	0.8 U	8.4	140	5.6	1.3 J	7.7	1 U	1 U	14	0.8 U	1 U	1 U	1.6	2030	0.427	0.054 U	7.58					
07/2013	0.8 U	14	170	7.1	1.7 J	12	1 U	1 U	25	0.8 U	1 U	1 U	1.3	2000	0.703	0.054 U	7.4					
10/2013	0.8 U	41	200	8.9	2.4 J	13	1 U	1 U	15	0.8 U	1 U	1 U	1.2	1940	0.043 U	0.054 U						
12/2013	0.8 U	7.8	170	7.4	1.6 J	8.9	1 U	1 U	22	0.8 U	1 U	1 U	2 J	1840	0.961	0.054 U						
04/2014	0.5 U	4.2	150	5.9	1.3	6.8	1 U	1 U	16	0.5 U	0.5 U	0.5 U	3	1920	0.984	0.054 U	6.67					
08/2014	0.5 U	1.8	24	1.3	0.5 U	1.4	1 U	1 U	9.9	0.5 U	0.5 U	0.5 U	5.7	533	1.68	0.23	7.87					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 2S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	400 U	2700	400000	2300 J	1100 J	60000	44	650	290	400 U	500 U		7.6	1130 J	8.69							
06/2009	5000 U	31000	230000	1700 J	660 J	28000	40	390	210	5000 U	5000 U	5000 U	7.5	1120	4.390	0.98 U						
07/2010	400 U	2500	250000	1700 J	680 J	32000	30	320	120	400 U	500 U	500 U	7.9	1270 J	4.23	0.054 U						
06/2011	200 U	6400	230000	1400	610 J	26000	12	76	56	200 U	250 U	250 U	9.6	957 J	3.28	0.054 U	6.7					
08/2011	500 U	500 U	220000	1400	490 J	24000	12	120	55	500 U	500 U	500 U	7	1510 J	4.23	0.16 U	6.52					
11/2011	500 U	150 J	120000	1100	340 J	18000	15 J	92 J	62 J	500 U	500 U	500 U	5.4	868	1.32	0.16 U	6.95	2.1E+05	1.2E+02	3.4E+05	3.7E+02	1.7E+02
03/2012	1000 U	520 J	240000	1700	590 J	30000	17	140	98	1000 U	1000 U	1000 U	5	1100 J	1.28	0.16 U	6.5	2.5E+05	1.0E+02	2.3E+05	1.5E+02	1.4E+03
06/2012	40 U	600	250000	1700	560	27000	62	390	1800	40 UJ	50 U	50 U	5.5	1170	3.88	0.054 U	6.73	8.5E+04	8.6E+02	2.3E+05	1.5E+02	2.8E+02
09/2012	80 U	210 J	240000	1900	650	33000	80	450	2500	80 U	100 U	100 U	4.7	1090 J	3.05	0.054 U		6.6E+03	9.3E+02	2.3E+05	2.3E+04	6.3E+05
12/2012	80 U	760	230000	1700	620	27000	55	280	1800	80 U	100 U	100 U	5	1130	1.87	0.054 U	6.44	1.9E+04	2.8E+00	2.5E+04	2.9E+01	2.9E+01
04/2013	44 J	2000	250000	1800	560	28000	45	230	950 J	47 J	38 J	20 U	4	1230	0.958	0.054 U	7.07	6.8E+04	4.7E+02	1.4E+05	2.7E+02	8.0E-01
07/2013	80 U	1400	220000	1600	530	18000	18	130	300	80 U	100 U	100 U	4.3	1130	1.16	0.054 U	6.84	7.5E+03	3.1E+01	1.7E+03	1.5E+01	9.0E-01
10/2013	400 U	730 J	240000	1800 J	670 J	27000	43	460	860	400 U	500 U	500 U	5.7	1020	4.1	0.054 U	6.15	3.7E+03	1.9E+02	6.3E+03	3.7E+02	1.0E+01
12/2013	40 U	7100	190000	1200	540	14000	11	96	240	40 U	50 U	50 U	5	562	0.183 J	0.054 U		3.8E+05	2.7E+01	8.3E+05	6.1E+02	2.4E+02
04/2014	0.5 UJ	3.5	77	4.9	0.5 U	67	190	190	19000	0.5 U	1.2	0.5 U	10.3	32.1	0.376 J	17.7	6.4	1.7E+04	1.3E+02	5.9E+04	1.3E+02	2.4E+04
08/2014	130 U	630	300000	2000	810	30000	17	190	240	130 U	130 U	130 U	7	954	5.17	0.054 U	6.93	3.9E+05	3.1E+02	6.7E+05	1.3E+01	3.4E+00

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 3D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	9.7 J	150	2600	5.4 J	37	160	2.8 J	13	43	750	32		2.6	808 J	0.36							

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 3S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	1.8 J	0.8 U	0.8 U	1 U	1 U	1 U	11	0.8 U	1 U		2.8	2090 J	2.25							
06/2009	5.0 U	2.2 J	1.5 J	5.0 U	5.0 U	2.0 U	1.0 U	1.0 U	3.7	5.0 U	5.0 U	5.0 U		2680	0.832	1.0 U						
07/2010	0.8 U	1 U	0.81 J	0.8 U	0.8 U	1 U	1 U	1 U	23	0.8 U	1 U	1 U		2610	1.93	0.054 U						
06/2011	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	16	0.8 U	1 U	1 U	3.3	2740	0.637	0.054 U	7.59					
08/2011	5 U	1.3 J	7.1	5 U	5 U	5 U	5 U	5 U	11 J	5 U	5 U	5 U	3.8	3170 J	1.4	0.11 J	7.39					
11/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	32	5 U	5 U	5 U	8.6	3470	2.31	0.16 U	6.8					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.3 J	5 U	5 U	5 U	14.1	283 J	0.0961 J	0.16 U	6.67					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	5 U	0.8 U	1 U	1 U	19.8	462	0.945	0.054 U	7.49					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	2.6 J	1 U	240	0.8 U	1 U	1 U	12.4	529	0.398	0.054 U	7.54					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	140	0.8 U	1 U	1 U	8.4	662	1.98	0.054 U	6.6					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	8.3	254	0.0842 J	0.054 U						
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	2.8 J	1.5 J	150	0.8 U	1 U	1 U	8.4	342	0.768	0.054 U	7.11					
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	69	0.8 U	1 U	1 U	4.4	450	0.228 J	0.054 U						
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3.4 J	0.8 U	1 U	1 U	5.1 J	699	0.151 J	0.054 U						
04/2014	0.5 UJ	0.5 U	1.3	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	9.6	226 J+	0.162 J	0.054 U	7.31					
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	31	0.5 U	0.5 U	0.5 U	4.7	523	0.0397 J	0.054 U						

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 4S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	34 J	15000	19000	31 J	43 J	360	13	9.8	140	16 U	20 U		3.9	2920 J	3.22							
06/2009	5.0 U	1.5 J	23	1.4 J	5.0 U	93	15	24	200	5.0 U	0.72 J	5.0 U	6.2	3750	0.671	1.7						
10/2009	5.0 U	6.7	92	2.4 J	0.51 J	79	8.8	11	120	0.38 J	0.78 J	5.0 U	11.4									
07/2010	0.8 U	1 U	34 J	1 J	0.8 U	130	16	13	170	0.8 U	1 U	1 U	3.5	3970 J	0.693	4.6						
06/2011	1.6 U	59	670	11	3 J	220	12	100	150	2.7 J	3.4 J	2 U	12.2	3730	0.338	45.4	7.69					
08/2011	5 U	10	130	3.6 J	5 U	91	12	75	110	5 U	1.8 J	5 U	5.4	4090 J	0.855	1.4	7.12					
11/2011	5 U	2.7 J	27	2.3 J	5 U	50	11	110	430	5 U	1.6 J	5 U	6.1	4190 J	0.498	11	7.04					
03/2012	5 U	1.4 J	46	5 U	5 U	140	14	42	180	5 U	1.4 J	5 U	4.1	4440 J	0.6	0.35	6.53					
06/2012	0.8 U	1.6 J	37	0.8 U	0.8 U	74	5.9	15	100 J	0.8 U	1 U	1 U	3.8	3190 J	0.72	5.1	7.14					
09/2012	0.8 U	1.8 J	96	1.2 J	0.8 U	190	13	83	380	0.8 U	1.1 J	1 U	6.7	3480 J	0.594	6.4	6.41					
12/2012	0.8 U	8	330	8.9	1.1 J	260	15	110	1400	0.8 U	1.3 J	1 UJ	2.5 U	2200	0.617	12.1	6.39					
04/2013	4 U	39	3400	55	8 J	1700	31	380	6100	4 U	6.2 J	5 U	9.2	2320	0.186 J	22.9	6.75					
07/2013	0.8 U	10	530	12	1.4 J	470	11	89	1300	1.3 J	2 J	1 U	5.1	3420	0.414	14.1	6.87					
10/2013	0.8 U	32	1300	27	4 J	920	20	300	4400	0.86 J	3.2 J	1 U	13.6	1840	0.24 J	29.1	6.25					
12/2013	0.8 U	27	660	20	2.9 J	810	16	230	3600	0.8 U	2.3 J	1 U	13.6	3050	0.587	26.1	6.44					
04/2014	2.5 U	23	3000	47	6.7	1400	54	350	5000	2.5 U	4.5 J	2.5 U	9	2190	0.684	19.5	6.73					
08/2014	0.5 U	10	1100	13	3.2	450	20	88	2900	0.5 U	2	0.5 U	7.7	2240	0.185 J	11.3						

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 5S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	5.0 U	5.0 U	0.85 J	5.0 U	5.0 U	15	1.6	1.0 U	38	5.0 U	5.0 U	5.0 U		1110	1.160	0.98 U						
07/2010	0.8 U	1 U	1.5 J	0.8 U	0.8 U	34	2.6 J	2 J	44	0.8 U	1 U	1 U		1150	1.3	0.054 U						
08/2011	5 U	6.5	1.2 J	5 U	5 U	24	2.4 J	1.9 J	30	5 U	5 U	5 U	2.4	932	0.723	0.16 U	7.06					
03/2012	5 U	5 U	5 U	5 U	5 U	3.6 J	5 U	5 U	7.9 J	5 U	5 U	5 U	1.7	1200	0.193 J	0.16 U						
06/2012	0.8 U	1 U	1.3 J	0.8 U	0.8 U	27	1.6 J	1.1 J	24 J	0.8 U	1 U	1 U	1.6	966 J	0.678	0.054 U						
09/2012	0.8 U	1 U	1.4 J	0.8 U	0.8 U	35	1.4 J	1 U	19	0.8 U	1 U	1 U	1.5	859	0.818	0.054 U	7.32					
12/2012	0.8 U	1 U	2 J	0.8 U	0.8 U	33	1.8 J	1.1 J	20 J	0.8 U	1 U	1 U	1.8	945	0.549	0.054 U						
04/2013	0.8 U	1 U	0.99 J	0.8 U	0.8 U	3.3 J	1 U	1 U	5.6	0.8 U	1 U	1 U	1.5	1060	0.152 J	0.054 U	7.59					
07/2013	0.8 U	1 U	1.7 J	0.8 U	0.8 U	27	1.3 J	1 U	21	0.8 U	1 U	1 U	2.1	877	0.639	0.054 U	7.36					
10/2013	0.8 U	1 U	1.6 J	0.8 U	0.8 U	30	1.5 J	1 U	17	0.8 U	1 U	1 U	1.9	790	0.591	0.054 U	6.93					
12/2013	0.8 U	1 U	1.4 J	0.8 U	0.8 U	21	1.3 J	1 U	18	0.8 U	1 U	1 U	2.8 J	751	0.687	0.054 U	6.94					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 6S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	2.5 J	34	0.8 U	1.6 J	280	57	8.2	300	1.4 J	11		3.5	2440 J	0.149 J							
05/2009	5.0 U	0.76 J	72	3.1 J	1.0 J	410	58	7.5	290	0.86 J	6.8	5.0 U	6.5	2610	0.0514 J	1.0 U						
07/2010	0.8 U	1 U	58	0.8 U	1.1 J	300	56	6.6	200	0.86 J	6.7	1 U	5.5	3540	0.137 J	0.054 U						
06/2011	0.8 U	1.4 J	60	2.5 J	0.8 U	120	12	2 J	62	0.8 U	1.9 J	1 U					10.1					
08/2011	5 U	5 U	23	5 U	0.98 J	210	45	3.5 J	110	5 U	6.3	5 U					6.96					
11/2011	5 U	5 U	40	5 U	1.5 J	250	46	4.8 J	150	5.5	9.9	5 U					6.78					
03/2012	5 U	5 U	670	2.4 J	3.3 J	280	17	5.4	48	1.5 J	10	5 U										
06/2012	0.8 U	1 U	53	0.8 U	0.8 U	210	34	4 J	110	0.8 U	3.9 J	1 U										
09/2012	0.8 U	1 U	31	0.8 U	1.5 J	250	50	5.8	140 J	1.1 J	8.5	1 U					6.45					
12/2012	0.8 U	1 U	29	0.8 U	0.8 U	110	24	3.3 J	75 J	0.8 U	2.8 J	1 U					6.89					
04/2013	0.8 U	1 U	1.9 J	0.8 U	0.8 U	1.3 J	1 U	1 U	3 U	0.8 U	1 U	1 U					8.37					
07/2013	0.8 U	1 U	97	0.9 J	0.8 U	230	27	4.6 J	140	1.1 J	5.3	1 U					6.45					
10/2013	0.8 U	1 U	66	0.8 U	1.3 J	230	54	15	200	0.87 J	7.4	1 U					6.24					
12/2013	80 U	100 U	80 U	80 U	80 U	170 J	45	4.7 J	160	80 U	100 U	100 U										
04/2014	0.53 J	76	67	0.55 J	0.5 U	60	5.4	1.1 J	56	0.5 U	1.2	0.5 U					7.7					
08/2014	0.5 U	1.3	44	0.6 J	0.63 J	170	31	6.4	140	0.5 U	4.5	0.5 U										

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 7D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	720 J	140000	26000	5000 U	5000 U	690 J	12	15	82	360 J	5000 U	5000 U	7.79	1150								
05/2008	740	75000	26000	80 U	110 J	1000	8.9	15	74	120 J	100 U		5.1	1400	1.57							
07/2008	5000 UJ	5000 UJ	130000 J	360 J	5000 UJ	900 J	16 J	28 J	72 J	5000 UJ	5000 UJ	5000 UJ	480 J	1190 J								
09/2008	2500 U	1200 J	59000	740 J	140 J	1500	4.4	13	55	2500 U	2500 U	2500 U	212	1280								
10/2008																						
12/2008	2500 U	2600	53000	350 J	2500 U	1400 J	5.3	15	62	2500 U	2500 U	2500 U	278	649								
06/2009	500 U	1600	19000	68 J	44 J	1200	7.8	18	380	500 U	53 J	500 U	124	1210	0.0430 J	304						
10/2009	100 J	3100	23000	88 J	55 J	940	12	21	890	64 J	100 J	500 U	117	485	0.0317 U							
07/2010	47 J	1800	17000	41 J	30 J	1400	13	110	3700	16 U	47 J	20 U	77	1310	0.0522 U	229						
06/2011	830 J	63000	80000	160 U	250 J	1300	8.3	56	130	730 J	200 U	200 U	56.1	856	0.106 J	128	7.64					
08/2011	500 U	770	140000	98 J	350 J	990	80	530	160	500 U	120 J	500 U	138	170	0.11 J	41.2	6.93					
11/2011	560	25000	29000	60 J	65 J	1300	38	210	3200	110 J	140 J	250 U	166	12.7 J	2.56	157	7.26					
03/2012	70	150	3100	50 U	12 J	890	19	93	170	50 U	50 U	50 U	4.4	5 U	0.977	0.27	7.42					
06/2012	390	19000	32000	56 J	60 J	630	17	190	3100	150	80 J	20 U	14.7	376	0.0333 U	230	8.67					
09/2012	420	20000	31000	63 J	75 J	1000	30	360	4200	210	110	20 U	28	212 J	0.0333 U	243	7.2					
12/2012	80 U	100 U	110000	110 J	80 U	930	22	250	2800	260 J	520	100 UJ	935	7.5	0.292	302	5.96					
04/2013	46 J	190 J	64000	81 J	130 J	740	8.1	79	1100	2600	1000	50 U	210	10 J	0.0459 J	224						
07/2013	89 J	1300	59000	91 J	80 U	1200	17	180	3400	900	1100	100 U	178	37.9	0.043 U	242	6.73					
10/2013	65 J	270	72000	89 J	81 J	850	9.9	120	2400	2100	1400	50 U	216	6.1	0.043 U	219	6.27					
12/2013	84 J	530	69000	110 J	190 J	1100	17	280	2000	2100	1900	100 U	192	22.2	0.043 U	208	6.55					
04/2014	50 U	360	44000	88 J	85 J	2100	45	360	4700	510	740	50 U	589	96.3	0.043 U	165	7.17					
08/2014	50 U	780	72000	140	93 J	3000	41	470	8600	360	650	50 U	219	12.2	0.0334 U	220	6.89					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 7D PUMP

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	53 J	2200	26000	79 J	37 J	1200	5.6 J	10 J	200 J	42 J	75 J	500 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 7D SNAP

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	1300 U	1800	21000	65 J	1300 U	680	6.9 J	15 J	220 J	1300 U	60 J	1300 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 7S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
06/2009	5.0 U	6.9	0.75 J	5.0 U	5.0 U	2.0 U	1.0 U	1.0 U	5.7	5.0 U	5.0 U	5.0 U		2070	0.122	1.0 U						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	7.6 J	0.8 U	1 U	1 U		2070	0.307	0.054 U						
08/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	9.4 J	5 U	5 U	5 U	3.6	2170	0.716	0.16 U	6.65					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15 U	5 U	5 U	5 U	2.7	2430 J	0.0756 J	0.16 U	6.89					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	7.5 J	0.8 U	1 U	1 U	2.4	1750	0.709	0.054 U	6.54					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	6.9 J	0.8 U	1 U	1 U		1970	1.32	0.054 U	6.6					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 UJ	2	2070	0.239	0.054 U	6.53					
04/2013	0.8 U	1 U	2.1 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.6	2210	0.0446 J	0.054 U						
07/2013	0.8 U	1 U	0.95 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.4	1940	0.043 U	0.054 U						
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2	12100	0.307 J	0.054 U	6.53					
12/2013	0.8 U	1 U	0.98 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.9 J	1880	0.235 J	0.054 U						
04/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	3.9	1800	0.0861 J	0.054 U						
08/2014	0.5 U	0.5 U	0.71 J	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	2.9	1700	4.44	0.054 U						

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 8S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	1.0 U	1.0 U	2.7	5.0 U	5.0 U	5.0 U		850	0.0088 J	0.99 U						
07/2010	0.8 U	1 U	14	0.8 U	0.8 U	18	1 U	1 U	10 U	0.8 U	1 U	1 U		3890 J	0.0522 U	0.054 U						
09/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15 U	5 U	5 U	5 U	14.9	424 J	0.0192 J	0.16 U	9.86					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15 U	5 U	5 U	5 U	7	5270 J	0.0812 J	0.16 U	6.34					
06/2012	0.8 U	1 U	4 J	0.8 U	0.8 U	3.8 J	1 U	1 U	5 U	0.8 UJ	1 U	1 U	25.1	4390 J	0.0325 J	0.054 U						
09/2012	0.8 U	1 U	2.8 J	0.8 U	0.8 U	3.5 J	1 U	1 U	8.3 J	0.8 U	1 U	1 U	5.7	4010 J	0.0333 U	0.054 U	6.94					
12/2012	0.8 U	1.5 J	2.1 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 UJ	5.6	2450	0.0333 U	0.054 U	6.85					
04/2013	0.8 U	1 U	1.7 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	5.3	3840	0.0333 U	0.054 U						
07/2013	0.8 U	1 U	0.87 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	6.7	3270	0.594	0.054 U						
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	4.2	1250	0.122 J	0.054 U	6.97					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	3.6	1360	0.043 U	0.054 U	7.05					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW- 9S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	67	130	0.8 U	0.8 U	35				0.8 U	1 U											
06/2009	2500 U	30000	99000	2500 U	2500 U	4100	19	27	210	2500 U	2500 U	2500 U		1410	0.0658 J	50.2						
07/2010	0.8 U	1 U	410	2.2 J	1.6 J	140	1 U	3.2 J	24	0.8 U	1.2 J	1 U		3510	1.28	0.054 U						
08/2011	5 U	5 U	310	2 J	0.99 J	170	5 U	6	27	5 U	5 U	5 U	7.6	3190	1.61	0.16 U	5.92					
03/2012	5 U	5 U	1300	7.5	4.2 J	460	5 U	15	32	5 U	3.1 J	5 U	5.4	2640	0.81	0.16 U	6.44					
06/2012	0.8 U	1 U	1100	7.8	3.7 J	290	1 U	19	42	0.8 U	3.6 J	1 U	5.9	2300	1.06	0.054 U	6.84					
09/2012	1.6 U	2 U	930	5.4 J	2.7 J	510	1 U	20	43	1.6 U	2.8 J	2 U	5.8	2300	1.14	0.054 U	6.48					
12/2012	0.8 U	1 U	740	4.9 J	2.6 J	320	1 U	20	40	0.8 U	3.6 J	1 UJ	4.6	1990	0.752	0.054 U	6.52					
04/2013	0.8 U	1 U	1100	8.8	4.3 J	640	1 U	35	54	2.6 J	7.7	1 U	5.8	2480	0.627	15.2	7.28					
07/2013	0.8 U	1 U	480	4.1 J	0.8 U	360	1 U	25	50	0.8 U	3.6 J	1 U	7.5	2530	1.1	9	6.48					
10/2013	0.8 U	1 U	220	1.6 J	0.8 U	150	1 U	7.3	19	0.8 U	1.5 J	1 U	16.8	778	0.22 J	0.95	6.95					
12/2013	0.8 U	1 U	270	2.1 J	0.89 J	180	1 U	12	25	0.82 J	2.4 J	1 U	15.4	1740	0.896	1.3	6.61					
04/2014	0.5 U	2.4	1000	7.5	4.1	620	3.3 J	50	90	16	16	0.5 U	10.7	1160	0.549	13.3	6.93					
08/2014	0.5 U	0.9 J	460	3.8	2.3	330	1 U	26	58	5.6	7.3	0.5 U	10.8	2040	1.76	5.7	7.11					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-10D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	98	0.8 U	0.8 U	27	14	2.3 J	150	1.4 J	1 U		2.7	722 J	0.751							
05/2009	5.0 U	5.0 U	34	5.0 U	5.0 U	17	7.4	1.0 U	110	0.89 J	5.0 U	5.0 U		706	1.030	1.15						
07/2010	0.8 U	1 U	24	0.8 U	0.8 U	10	13	1.1 J	190	1.3 J	1 U	1 U		934	0.822	4						
08/2011	13 U	53	5400	14	26	170	7.9	3.9 J	120	660	28	13 U	6.3	931	0.166 J	8.4	6.17					
03/2012	10 U	10	1500	3.5 J	10	120	4.6 J	2.2 J	71	290	17	10 U	3.2	766	0.751	1.7	6.97					
06/2012	1.6 U	2.3 J	1300	3.1 J	15	91	15	3.5 J	200	190	15	2 U	2.1	932	0.168 J	6.2	6.95					
09/2012	0.8 U	1.8 J	1000	2.7 J	11	120	25	3.4 J	310	180	19	1 U	1.7	916	0.103 J	5.3	6.72					
12/2012	1.6 U	4.9 J	810	2.6 J	10	160	4.7 J	3.8 J	78	250 J	15 J	2 U	13.3	627	0.716	4.7	6.85					
04/2013	0.8 U	2.6 J	770	2.3 J	9	160	19	5.5	270	230	17	1 U	2.5	815	0.0773 J	7.5	7.92					
07/2013	1.6 U	2.8 J	1100	2.5 J	8.9 J	170	11	7.4	150	140	21	2 U	2.2	657	0.104 J	4.7	7.89					
10/2013	0.8 U	4.6 J	1100	3.2 J	13	250	5	8.4	82	250	30	1 U	1.9	636	0.125 J	3.2	7.12					
12/2013	0.8 U	2.2 J	770	2.4 J	9.8	160	16	5.6	240	150	21	1 U	2.1	761	0.097 J	6.1	6.73					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-10S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	64	730	5.3	2.3 J	140	22	14	200	0.8 U	1 U		2.4	1350 J	13.3							
05/2009	5.0 U	120	1900	37	4.7 J	240	2.3	10	46	5.0 U	5.0 U	5.0 U		804	2.990	0.99 U						
07/2010	0.8 U	3.9 J	110	5.1	2.4 J	110	1.4 J	4.1 J	31	0.8 U	1 U	1 U		1020 J	1.65	0.054 U						
06/2011	0.8 U	14	1100	8.7	2.9 J	210	5.5	18	260	0.8 U	3.4 J	1 U					6.77					
08/2011	5 U	16	1100	12	3 J	270	25	42	4400	5 U	2.3 J	5 U					6.85					
11/2011	25 U	34	5600	27	8.9 J	640	7.3	69	3000	25 U	25 U	25 U					6.86					
03/2012	5 U	6.2	880	11	2.6 J	510	12	230	1700	5 U	5 U	5 U					6.85					
06/2012	0.8 U	10	1000	19	2.7 J	740	16	590	6600	0.8 U	2.3 J	1 U					6.69					
09/2012	0.8 U	4.9 J	410	25	0.8 U	810	7	1700	1700	0.8 U	1.2 J	1 U										
12/2012	0.8 UJ	3.2 J	300	12	0.8 U	280	6.5	380	350	0.8 U	1 U	1 UJ					6.62					
04/2013	0.8 U	3 J	330	6.8	0.91 J	280	5.2	280	570 J	0.8 U	1 U	1 U										
07/2013	0.8 U	4.9 J	340	13	0.8 U	250	9	570	2700	0.8 U	1 U	1 U					7.13					
10/2013	0.8 U	1 U	230	4.2 J	0.8 U	170	3.2 J	100	240	0.8 U	1 U	1 U					6.69					
12/2013	0.8 U	1 U	280	3.6 J	0.8 U	130	2.5 J	48	250	0.8 U	1 U	1 U					7.09					
04/2014	0.5 U	1.2	280	2.9	0.75 J	130	1.9 J	45	570	0.5 U	0.5 U	0.5 U					6.91					
08/2014	0.5 U	3	630	4.7	1.8	190	2.9 J	23	440	0.5 U	0.5 U	0.5 U					6.97					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-11D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	8.4 J	260 J	190 J	0.8 U	7.3 J	9.3 J	76 J	1 U	460 J	200 J	4.6 J		4	1490 J	0.0522 U							
05/2009	21 J	1200	3500	100 U	19 J	640	46	13	280	220	48 J	100 U		1030	0.0616 J	3.0						
10/2009	10 J	280	2100	5.2 J	16 J	250	45	5.0 U	240	430	33 J	100 U	4.0									
07/2010	3.4 J	130	1300	3.6 J	12	310	60	7.4	320	140	33	1 U		1290	0.0522 U	11.9						
06/2011	310	5900	3100	40 U	490	50 U	18	1.4 J	95	25000	280	50 U					7.72					
08/2011	17	100	1300	2.8 J	44	30	250 J	5 UJ	1000 J	2300	69	10 U					6.93					
11/2011	5.8 J	21	550	10 U	17	30	170	5 U	1400	1700	33	10 U					6.87					
03/2012	2.8 J	9.8	380	1.3 J	12	38	100	5 U	430	990	37	5 U	1.4				6.52					
06/2012	1.2 J	10	150	0.8 U	4.2 J	53	110	1.9 J	750	430 J	21	1 U					7.31					
09/2012	0.8 U	9.1	150	0.8 U	6.9	67	67	2.1 J	280	320	26	1 U					6.59					
12/2012	0.8 U	7.2	120	0.8 U	3.7 J	47	81	1.3 J	350	270	26	1 UJ					6.72					
04/2013	1.1 J	9.6	210	1.3 J	9.6	160	9.6	6.9	59	630	55	1 U					7.42					
07/2013	0.8 U	5.3	99	0.8 U	4.3 J	69	24	2.3 J	110	290 J	35	1 U					7.33					
10/2013	0.8 U	8.2	170	1.2 J	7.7	140	10	5.1	63	500	60	1 U					6.77					
12/2013	0.8 U	7.9	170	1.5 J	6.6	140	4.6 J	13	110	480	66	1.9 J					7.51					
04/2014	0.54 J	6.3	140	1.3	14	110	1.7 J	21	260	340	62	1.9					7.48					
08/2014	0.5 U	4.3	53	0.87 J	4.8	100	18	13	220	290	43	3					7.11					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-11S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	240	920	26	14	140	2.3 J	1.9 J	140	110	67		2.7	2190 J	0.459							
05/2009	25 U	180	1700	59	13 J	240	1.5	1.0 U	97	65	88	25 U		1960	0.238	1.0 U						
07/2010	0.8 U	190	920	47	11	210	1.6 J	1.7 J	85	30	68	1 U		1850	0.599	0.054 U						
06/2011	8 U	93	4400	27 J	58	450	2.7 J	5 J	77	600	170	10 U					6.8					
08/2011	10 U	200	1300	20	21	210	2.9 J	3.6 J	110	210	81	10 U					6.79					
11/2011	5 U	150	2200	29	37	790	3.2 J	38	260	300	200	5 U					6.68					
03/2012	5 U	160	460	15	8.2	300	5.1	87	840	49	68	5 U					6.44					
06/2012	0.8 U	89	280	14	4.4 J	270	4 J	110	770	39 J	67	1 U					6.71					
09/2012	0.8 U	140	300	14	3.1 J	230	1.6 J	62	250	8.8	34	1 U					6.55					
12/2012	0.8 UJ	110	150	7.8	1.5 J	54	1 U	18	87	3.5 J	13	1 UJ					6.75					
04/2013	0.8 U	44	180	9.6	1.7 J	160	2 J	97	950	14	48	1 U					6.91					
07/2013	0.8 U	84	150	8.8	1.4 J	75	1.8 J	80	880	11	44	1 U					6.38					
10/2013	0.8 U	70	160	8.7	1.3 J	82	3.4 J	120	760	9.5	49	1 U					6.47					
12/2013	0.8 U	73	140	8.7	1.3 J	70	2.8 J	120	1200	11	58	1.3 J					6.87					
04/2014	0.5 U	60	120	7.1	1.1	53	2.1 J	91	770	6.8	41	0.97 J					7.16					
08/2014	0.5 U	87	160	8.4	1.2	50	4 J	98	1200	5.9	42	1					7.18					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-12D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-	1,1-	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
										Trichloro ethane (ug/L)	Dichloro- ethane (ug/L)											
05/2008	0.8 U	12	1.9 J	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	37	1.0 U	210	5.0 U	5.0 U	5.0 U		1460	0.0286 J	32.8						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	25	1 U	130	0.8 U	1 U	1 U		1520	0.0522 U	31.4						
09/2011	5 U	5 U	5 U	5 U	5 U	5 U	24	5 U	130	5 U	5 U	5 U	1.6	1790 J	0.0172 J	47.2	6.38					
03/2012	5 U	5 U	1.6 J	5 U	5 U	5 U	27	5 U	130	5 U	5 U	5 U	1 U	1650	0.2 U	41.8	6.74					
06/2012	0.8 U	1 U	5.1	0.8 U	0.8 U	1 J	28	1 U	160	1.7 J	1 U	1 U	4.9 J	1700	0.0141 U	36.7	6.83					
09/2012	0.8 U	1.9 J	3.7 J	0.8 U	0.8 U	1 U	39	1 U	200	0.8 U	1 U	1 U	1.7	1630	0.0333 U	35.2	6.91					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	26	1.2 J	130	0.8 U	1 U	1 U	0.5 U	1330	0.0333 U	28.8	6.39					
04/2013	0.8 U	1 U	16	0.8 U	0.8 U	7.9	29	1 U	160	5.1	1 U	1 U	0.5 U	1540	0.0333 U	42.8	7.39					
07/2013	0.8 U	1 U	3.5 J	0.8 U	0.8 U	1.5 J	37	1 U	200	1.2 J	1 U	1 U	0.5 U	1500	0.043 U	41.2	7.14					
10/2013	0.8 U	1 U	5.5	0.8 U	0.8 U	2.7 J	42	1 U	200	1.3 J	1 U	1 U	0.88 J	1370	0.043 U	42.2	6.82					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	41	1 U	210	0.8 U	1 U	1 U	1.4	1250	0.043 U	41.5	6.74					
04/2014	1.1	39	570	2	13	130	1 U	4.2 J	21	370	16	0.5 U	3	600	0.195 J	0.32	7.22					
08/2014	0.5 U	0.5 U	7.5	0.5 U	0.5 U	2.2	39	1 U	210	1.9	0.5 U	0.5 U	1.6	1490	0.0334 U	47.5	7.17					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-12S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	21 J	11000	6200	35 J	54	240	20	10	290	400	52											
05/2009	100 U	2500	3800	26 J	23 J	1300	9.2	19	170	200	110	100 U	10.9	630	0.253	25.4						
07/2010	4 U	2900	2800	27	15 J	1500	8.1	29	110	150	93	5 U		1140	0.218	9.7						
06/2011	81 J	7700	8300	40 U	360	200 J	9.2	5.4	110	18000	400	50 U					7.62					
08/2011	18 J	5300	9300	33 J	170	370	7.2	3.8 J	86	9100	500	50 U					6.72					
11/2011	10 J	3300	4500	20 J	78	510	5.9	25	240	3000	480	25 U					6.88					
03/2012	25 U	4700	2900	26	15 J	230	20	150	2000	270	100	25 U					6.76					
06/2012	4 U	7000	2900	38	8 J	190	16	150	2000	120	48	5 U					7.19					
09/2012	8 U	4500	3000	29 J	8 U	450	13	210	2700	88	55	10 U					6.38					
12/2012	0.8 UJ	740	1100	14	5.5	280	18	320	3200	74	53	1.3 J					7.97					
04/2013	1.6 U	1800	960	22	2.6 J	210	27	400	6200	51	45	2 U					6.96					
07/2013	4 U	2700	2900	41	6.7 J	510	27	320	6200	45	49	5 U					6.29					
10/2013	0.8 U	980	2800	40	6.7	430	29	480	5600	24	28	1 U					6.58					
12/2013	1.6 U	2100	1500	29	4.8 J	300	34	450	7800	27	38	2 U					6.69					
04/2014	1 U	1300	610	22	2	130	20	370	4100	17	23	1 U					7.13					
08/2014	0.5 U	1400	1500	48	3.7	740	43	570	9000	23	34	0.5 U					6.84					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-13D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	30	660	4.9 J	4.2 J	250	1.4 J	12	41	2.1 J	29		2.8	971 J	0.4							
05/2009	50 U	50 U	1000	6.2 J	50 U	420	2.9	15	44	50 U	42 J	50 U		923	0.169	1.0 U						
07/2010	0.8 U	1 U	700	6	4.2 J	240	1.6 J	6.9	22	1.1 J	36	1.3 J		98.6 J	0.218	0.78						
08/2011	5 U	1.4 J	510	4.2 J	2.9 J	280	2.5 J	12	27	5.6	29	5 U	3.7	1100	0.218	0.84	7.14					
03/2012	5 U	3.1 J	370	3.7 J	2.2 J	290	9.9	8.5	20	5 U	28	5 U	2.7	907 J	0.217	4.3	6.38					
06/2012	0.8 U	1 U	270	2.8 J	1.9 J	150	9.1	10	29	0.8 U	14	1 U	2.9	1700	0.242	3.1	6.88					
09/2012	0.8 U	1 U	280	2.3 J	1.5 J	140	13	7.9	29	0.8 U	10	1 U	1.8	1400	0.304	2.6	6.48					
12/2012	0.8 U	1.1 J	230	2.7 J	1.6 J	120	16	13	40	0.8 U	11	1 UJ	2	1070	0.158 J	2.8	6.53					
04/2013	0.8 U	1 U	230	2.2 J	0.99 J	230	15	26	110	0.8 U	16	1 U	2.2	1030	0.0333 U	27	6.92					
07/2013	0.8 U	1 U	250	2 J	0.97 J	170	13	32	370	0.8 U	11	1 U	2.6	936	0.0543 J	5	7.7					
10/2013	0.8 U	1 U	220	1.6 J	0.86 J	170	11	30	350	0.8 U	7.3	1 U	2.8	2350	0.176 J	5.9	6.25					
12/2013	0.8 U	1.3 J	180	0.8 U	0.8 U	81	9.7	21	310	0.8 U	4.9 J	1 U	4.1	673	0.072 J	4.9	6.91					
04/2014	0.5 UJ	0.5 U	150	1.1	0.59 J	130	8.9	28	840	0.5 U	4.8	0.5 U	5.1	783 J+	0.043 U	16	6.85					
08/2014	0.5 U	0.5 U	200	1.3	0.79 J	230	11	63	660	0.5 U	8.4	0.5 U	5.4	855	0.0838 J	7.1	6.58					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-14D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	37	1.0 U	99	5.0 U	5.0 U	5.0 U		1060	0.155	2.50						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	35	1 U	95	0.8 U	1 U	1 U		1150	0.186 J	7						
09/2011	5 U	5 U	5 U	5 U	5 U	5 U	34	5 U	95	5 U	5 U	5 U	2.6	1150 J	0.0915 J	9.2	6.67					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	30	5 U	77	5 U	5 U	5 U	1.8	1150	0.0327 J	6.2	7.04					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	28	1 U	82	0.8 U	1 U	1 U	2	1160 J	0.0966 J	7.4	6.99					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	27	1 U	81	0.8 U	1 U	1 U	1.7	891	0.075 J	5.8	6.89					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	12	1 U	51	0.8 UJ	1 UJ	1 U	1.6	764	0.0333 U	2.2	6.64					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	15	1 U	45	0.8 U	1 U	1 U	1.8	1050	0.0333 U	3.8	7.29					
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	6.8	1 U	35	0.8 U	1 U	1 U	2	948	0.043 U	1.1	7.49					
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	4.3 J	1 U	28	0.8 U	1 U	1 U	2	875	0.043 U	0.69	7.14					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	9.8	1 U	52	0.8 U	1 U	1 U	3.5	1030	0.043 U	1.8	7.18					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-15D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	1.6 U	3.1 J	1400	9.1 J	9.3 J	170	1 J	3.7 J	33	36	20		3	950 J	0.528							
05/2009	25 U	25 U	790	5.6 J	5.6 J	520	1.0 U	7.8	34	25	20 J	25 U		960	0.291	1.0 U						
07/2010	0.8 U	1.8 J	310	2.9 J	3.1 J	220	1 U	4.8 J	23	23	16	1 U		922	0.276	0.37						
08/2011	10 U	4.5 J	1700	4.8 J	11	540	5 U	2.5 J	18	30	20	10 U	4.2	740	0.164 J	3.5	7.66					
03/2012	5 U	2.9 J	720	3.6 J	6.1	260	5 U	1.1 J	7.5 J	34	14	5 U	0.93 J	420 J	0.16 J	0.37	7.12					
06/2012	0.8 U	2.9 J	560	3.7 J	4.3 J	220	1 U	1.1 J	10 J	41	14	1 U	1.5	52.1	0.15 J	0.47	7.24					
09/2012	0.8 U	23	820	5.8	6.3	390	1 U	2.9 J	21	40	25	1 U	2.1	958	0.309	1.5	6.57					
12/2012	0.8 U	10	940	6.2	6.6	360	1 U	2.9 J	20	53 J	37	1 U	2.7	499	0.184 J	2.4	6.08					
04/2013	0.8 U	2.7 J	480	4.5 J	4.2 J	240	1 U	3.3 J	15	49	25	1 U	1.1	506	0.169 J	1.8	7.59					
07/2013	0.8 U	1.9 J	290	3.1 J	2.5 J	260	1 U	2.7 J	17	37	23	1 U	3.1	511	0.332	1.7	7.83					
10/2013	0.8 U	1.8 J	290	3.1 J	2.3 J	320	1 J	10	67	44	27	1 U	2.1	726	0.267 J	7.4	5.95					
12/2013	0.8 U	3.2 J	420	4.2 J	4.3 J	350	1 U	4.9 J	42	99	46	1 U	3.7	530 J	0.214 J	4.8	7.24					
04/2014	0.5 U	2.9	290	4.1	3.2	260	1 U	5.6	45	59	36	0.5 U	1.8	458	0.145 J	3.5	7.58					
08/2014	0.5 U	2.9	270	3.6	2.9	300	1 U	3.6 J	27	63	31	0.5 U	3	389	0.111 J	1.2	7.32					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-16D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	2.2 J	520	2.7 J	2.9 J	160	4.3 J	5.6	31	3.3 J	12											
05/2009	25 U	25 U	560	2.6 J	25 U	200	7.0	6.3	38	25 U	11 J	25 U		1080	0.0723 J	1.6						
07/2010	0.8 U	1.5 J	490	2.1 J	2.7 J	180	24	4.9 J	68	1.4 J	7.7	1 U		1090	0.147 J	3.6						
08/2011	5 U	2.4 J	420	2 J	2.8 J	170	10	5.4	35	15	11	5 U	4	1140	0.249	1.6	6.13					
03/2012	5 U	1.8 J	380	1.8 J	2.8 J	220	5.7	4.4 J	36	6.5	12	5 U	2.9	961	0.178 J	1.6	6.98					
06/2012	0.8 U	2.2 J	450	2 J	3 J	230	6.9	8.8	46	8.7 J	14	1 U	2.7	983 J	0.228	0.54	7.27					
09/2012	0.8 U	12	330	1.5 J	2.5 J	180	5.1	7.7	41	3.9 J	11	1 U	2.3	1040	0.344	1.3	6.53					
12/2012	0.8 U	1.5 J	290	1.1 J	1.6 J	130	9.9	10	72 J	2.5 J	11	1 U	2.5	1040	0.327	1.6	7.13					
04/2013	0.8 U	1.3 J	270	1.3 J	2 J	180	11	21	150	1.7 J	11	1 U	2.6	1020	0.213	1.8	7					
07/2013	0.8 U	1.2 J	250	1.4 J	1.6 J	140	8.1	16	150	0.98 J	9.3	1 U	2.8	974	0.213	1.9						
10/2013	0.8 U	1 J	240	1.3 J	1.7 J	200	5.5	18	180	0.8 U	8.6	1 U	2.4	1020	0.17 J	2.4	6.86					
12/2013	0.8 U	1.2 J	300	1.5 J	1.7 J	200	9.7	31	370	0.8 U	9.8	1 U	4.6	1060	0.151 J	3	6.81					
04/2014	0.5 U	0.89 J	250	1.2	1.3	190	10	29	260	0.5 U	7	0.5 U	3.8	1010	0.0792 J	1.9	7.1					
08/2014	0.5 U	0.96 J	260	1.2	1.4	200	7.9	18	220	0.5 U	6.5	0.5 U	4.9	958	0.153 J	2.4	6.77					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-17D

Date	(PCE)	(TCE)	Cis-1,2-DCE	Trans-1,2-DCE	1,1-DCE	Vinyl chloride	Ethane	Ethene	Methane	1,1,1-Trichloroethane	1,1-Dichloroethane	Chloroethane	TOC	Sulfate	Iron	Sulfide	pH	BVC	DHBt	DHC	TCE	VCR
	(ug/L)	(ug/L)	(ug/L)		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(cells/ml)	(cells/ml)	(cells/ml)	(cells/ml)	(cells/ml)
05/2008	0.8 U	57	700	1.4 J	14	34				260	33											
05/2009	50 U	50 U	1300	50 U	11 J	600	4.1	6.0	80	230	62	50 U		875	0.0078 J	18.0						
10/2009	50 U	12 J	1100	2.6 J	8.6 J	430	4.8	6.5	85	170	49 J	50 U	5.0									
07/2010	0.8 U	9.8	1000	3.6 J	11	490	5.7	7.8	77	150	64	1 U		1090	0.0522 U	15.7						
06/2011	0.8 U	12	250	0.8 U	4.5 J	44	5.3	1 U	61	120	12	1 U					6.92					
08/2011	50 U	220	4400	50 U	86	100	15	1.2 J	94	7200	210	50 U					6.97					
11/2011	8.8 J	350	2200	5.5 J	74	52	7.2	5 U	70	5800	150	13 U					6.99					
03/2012	1.4 J	6.2	450	1.7 J	12	43	6.7	5 U	65	730	41	5 U	3.4				7					
06/2012	1.2 J	6.1	350	1.6 J	16	85	6.9	1 U	68	660	41	1 U					6.92					
09/2012	0.8 U	6.4	240	1.2 J	7.9	110	6.2	1.4 J	51	420	37	1 U					6.76					
12/2012	0.8 UJ	5.9	170	1.1 J	4.6 J	79	6.7	1.6 J	61	330	35	1 UJ					6.97					
04/2013	0.8 U	3.4 J	75	0.8 U	2.8 J	50	4.1 J	1.4 J	59	210	29	1.7 J					7.41					
07/2013	0.8 U	2.6 J	47	0.8 U	2.3 J	47	3 J	2.5 J	55	130 J	31	1.3 J					7.04					
10/2013	0.8 U	2.3 J	39	0.8 U	1.5 J	50	4.2 J	11	110	110	31	2.8 J					7.04					
12/2013	0.8 U	2.2 J	33	0.8 U	1.2 J	39	3.4 J	4.3 J	72	83	29	3.6 J					6.96					
04/2014	0.5 UJ	1.7	19	0.5 U	1.5	30	2.6 J	17	280	50	29	4.2					6.68					
08/2014	0.5 U	1.6	18	0.5 U	1.1	35	3.2 J	6.9	100	45	26	3.2					6.8					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-18D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-	1,1-	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
										Trichloro ethane (ug/L)	Dichloro- ethane (ug/L)											
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U					0.8 U	1 U										
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	2.0	1.0 U	50	5.0 U	5.0 U	5.0 U		1540	0.0077 U	2.1						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.7 J	1 U	36	0.8 U	1 U	1 U		1870	0.0522 U	2.8						
08/2011	5 U	5 U	5 U	5 U	5 U	5 U	1.9 J	5 U	32	5 U	5 U	5 U	4.4	1740	0.2 U	2.4	6.54					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	1.6 J	5 U	43	5 U	5 U	5 U	4.2	1750	0.2 U	5.4	6.76					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.2 J	1 U	47	0.8 U	1 U	1 U	4.4	1630	0.0141 U	4.1	7.01					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.6 J	1 U	24	0.8 U	1 U	1 U	2.4	1530 J	0.0333 U	1.9	7.14					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.5 J	1 U	43	0.8 U	1 U	1 U	3.6	1310	0.0333 U	3.6	7.52					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	33	0.8 U	1 U	1 U	3.2	1320	0.0333 U	1.6	7.16					
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	44	0.8 U	1 U	1 U	4.7	1420	0.043 U	5.1	6.63					
10/2013	0.8 U	1 U	1.1 J	0.8 U	0.8 U	1 U	1 U	1 U	9.2	0.8 U	1 U	1 U	3.4	976	0.043 U	0.54	7.03					
12/2013	0.8 U	1 U	1.3 J	0.8 U	0.8 U	1 U	1 U	1 U	15	0.8 U	1 U	1 U	4.3	860 J	0.043 U	0.52	7.16					
04/2014	0.5 U	0.5 U	0.93 J	0.5 U	0.5 U	0.5 U	1 U	1 U	20	0.5 U	0.5 U	0.5 U	4.6	1150	0.043 U	0.87	6.95					
08/2014	0.5 U	0.5 U	1.2	0.5 U	0.5 U	0.5 U	1 U	1 U	14	0.5 U	0.5 U	0.5 U	4.9	1070	0.0334 U	0.45	6.91					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-19D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	42	0.8 U	0.8 U	6.5	1 U	1 U	21	0.8 U	1.3 J											
05/2009	5.0 U	5.0 U	58	5.0 U	5.0 U	10	1.0 U	1.0 U	23	5.0 U	1.7 J	5.0 U		3710	3.010	1.0 U						
07/2010	0.8 U	1 U	60	0.8 U	0.8 U	11	1 U	1 U	24	0.8 U	1.6 J	1 U		3170	2.54	0.054 U						
08/2011	5 U	5 U	39	5 U	5 U	3.5 J	5 U	5 U	19	5 U	5 U	5 U	8	3320	2.72	0.16 U	5.49					
03/2012	5 U	5 U	38	5 U	5 U	2.1 J	5 U	5 U	25	5 U	5 U	5 U	8.8	4060	2.23	0.16 U						
06/2012	0.8 U	1 U	34	0.8 U	0.8 U	1.4 J	1 U	1 U	19	0.8 U	1 U	1 U	8.7	3660	2.26	0.054 U	6.58					
09/2012	0.8 UJ	1 U	32	0.8 U	0.8 U	1.3 J	1 U	1 U	25	0.8 U	1 U	1 U	6.9	2950 J	2.42	0.054 U						
12/2012	0.8 U	1 U	26	0.8 U	0.8 U	1.9 J	1.9 J	1 U	27	0.8 UJ	1 U	1 U	7.9	3020	4.15	0.054 U	6.69					
04/2013	0.8 U	1 U	22	0.8 U	0.8 U	1 U	1 U	1 U	23	0.8 U	1 U	1 U	8.1	3120	2.31	0.054 U	7					
07/2013	0.8 U	1 U	19	0.8 U	0.8 U	1 U	1 U	1 U	20	0.8 U	1 U	1 U	9.2	3130	2.36	0.054 U	7.32					
10/2013	0.8 U	1 U	17	0.8 U	0.8 U	1 U	1 U	1 U	24	0.8 U	1 U	1 U	8.1	2670	2.31	0.054 U	5.46					
12/2013	0.8 U	1 U	17	0.8 U	0.8 U	1 U	1 U	1 U	22	0.8 U	1 U	1 U	10.9	2890	2.19	0.054 U	6.42					
04/2014	0.5 U	0.5 U	8.5	0.64 J	0.5 U	0.82 J	1 U	1 U	14	0.5 U	0.5 U	0.5 U	9.6	1690	0.116 J	0.054 U	7.06					
08/2014	0.5 U	0.5 U	11	1.2	0.5 U	0.6 J	1 U	1 U	20	0.5 U	0.5 U	0.5 U	11.3	2890	1.91	0.054 U	6.28					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-20D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	8 U	11 J	5900	12 J	47 J	380				210	73											
05/2009	100 U	26 J	3100	12 J	22 J	1300	1.0	6.0	31	93 J	66 J	100 U	2.9	558	0.0077 U	3.1						
10/2009	50 U	5.8 J	1300	8.7 J	11 J	710	1.0 U	5.6	19	54	40 J	50 U	3.5									
07/2010	0.8 U	2.9 J	960	5.6	7.9	930	1 U	13	20	42	43	1 U	2.9	695	0.0522 U	3.4						
06/2011	16 U	1200	24000	35 J	170	610	1.3 J	6.8	34	2900	290	20 U					6.84					
08/2011	100 U	160	24000	28 J	150	680	1.3 J	6.7	32	1900	260	100 U					7.15					
11/2011	50 U	20 J	5800	13 J	36 J	1400	5 U	5.5	20	550	81	50 U					7.18					
03/2012	130 U	850	13000	24 J	150	420	1.3 J	7.2	94	6200	1300	130 U	8.7				6.45					
06/2012	15	590	5200	19	180	160	1 U	3.7 J	42	14000 J	860	2 U					7.41					
09/2012	16 J	390	3500	12 J	150	160	1 U	2.7 J	23	9800	620	10 U										
12/2012	9.5 J	100	2800	9.5 J	240	120	1 U	2.9 J	33 J	7700	410	10 U					6.88					
04/2013	5.8 J	47	1700	8.6 J	53	330	1.4 J	22	190	3700	290	2.5 U					7.29					
07/2013	4.2 J	37	2700	9.7 J	65	470	1.6 J	16	170	4000	490	5 U					6.5					
10/2013	4 U	12 J	940	4.8 J	27	400	1.7 J	23	200	2000	170	5 U					6.92					
12/2013	1.7 J	9.1 J	630	4.5 J	23	380	2 J	31	260	1600	150	2 U					7.13					
04/2014	1.3	7.3	340	4.3	25	420	2.9 J	52	360	990	120	0.5 U					7.3					
08/2014	1.9 J	12	700	5.6	43	800	1.5 J	16	150	2300	230	1 U					7.03					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: MW-21D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1.1 J	290	1.5 J	1.7 J	43	1.2 J	5.7	37	3.4 J	2.8 J		3.9	1040 J	11.5							
05/2009	5.0 U	0.67 J	110	0.63 J	0.67 J	48	1.0 U	4.0	40	2.0 J	2.1 J	5.0 U	4.8	1170	0.623	1.0 U						
07/2010	0.8 U	1 U	85	0.8 U	0.8 U	38	1 U	2.4 J	25	1.8 J	1.5 J	1 U	4.3	1140	3.71	0.057 J						
06/2011	4 U	5 U	2800	5 J	15 J	75	1 U	1.6 J	20	39	7.7 J	5 U					6.93					
08/2011	25 U	25 U	5100	8.2 J	21 J	530	5 U	5.3	28	140	19 J	25 U					7.04					
11/2011	25 U	6.6 J	4100	10 J	19 J	650	1.7 J	6.5	35	340	33	25 U					7.12					
03/2012	25 U	7.1 J	4800	8.4 J	17 J	610	5 U	6.4	40	290	34	25 U	0.88 J				6.59					
06/2012	4 U	15 J	3600	7.9 J	13 J	580	1 U	8	37	310 J	35	5 U					6.8					
09/2012	1.6 U	11	2600	9.8 J	15	580	2.3 J	9.7	50	180	32	2 U					7.26					
12/2012	1.6 U	3.1 J	2200	7.3 J	12	1000	3.8 J	12	46 J	240	35	2 U					7.36					
04/2013	0.8 U	5.4	780	5.3	7	730	1 U	11	36	260	41	1 U					7.15					
07/2013	0.8 U	2.8 J	380	3.3 J	8.1	600	1 U	12	30	160	29	1 U					8.49					
10/2013	0.8 U	4.3 J	660	4.7 J	6.4	690	1.4 J	23	120	160	36	1 U										
12/2013	0.8 U	4.2 J	680	3.4 J	5.6	550	1.5 J	19	64	130	29	1 U					7.13					
04/2014	0.5 U	4.6	530	3.9	13	450	1.7 J	34	200	290	35	0.5 U					7.53					
08/2014	0.5 U	3	590	3.7	7.5	460	5.3	15	190	160	32	0.5 U					7.8					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR- 3SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	4 U	9 J	7400	120	11 J	740	11 J	63 J	170 J	4 U	5 U	5 U	1030	11.3 J	44.5	0.84	5.99					
08/2011	10 U	10 U	4000	100	7 J	950	3.7 J	30	2300	10 U	10 U	10 U	2260	3.1 J	131	0.67	5.87					
11/2011	25 U	25 U	2300	80	25 U	1400	1.6 J	110	8800	25 U	25 U	25 U	1760	2.7 J	146	0.34	6.14					
03/2012	50 UJ	50 UJ	50 UJ	48 J	50 UJ	50 UJ	130	40	11000	50 UJ	50 UJ	14 J	39.3	5 U	86	0.16 J	6.52					
06/2012	0.8 U	1 U	0.81 J	48	0.8 U	1.8 J	42	1 U	13000	0.8 UJ	1 U	1.9 J	838	2 J	73.3	0.18	6.47					
09/2012	0.8 UJ	1 U	0.8 U	7	0.8 U	1 U	17	1 U	11000	0.8 U	1 U	1 U	293	1.5 UJ	48.7	0.14 J	6.38					
12/2012	0.8 UJ	1 UJ	0.8 UJ	0.8 UJ	0.8 UJ	1 UJ	99	1.2 J	15000	0.8 UJ	1 UJ	1 UJ	171	1.7 J	42.7	0.17	6.7					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	170	1 U	23000	0.8 U	1 U	1 U	69.4	276	37.7	0.39	6.5					
07/2013	8 U	10 U	8 U	8 U	8 U	10 U	120 J	1 U	20000	8 U	10 U	10 U	40.1	13.7	12.2	1.2	6.67					
10/2013	8 U	10 U	8 U	8 U	8 U	10 U	170	1 U	16000	8 U	10 U	10 U	53.8	1.5 U	22.3	0.66	5.38					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	180	1 U	15000	0.8 U	1 U	1 U	66.1	1.5 U	25.8	0.38	6.11					
04/2014	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	140	4.6 J	17000	0.5 U	0.5 U	0.5 U	21.8	27.1 J+	11.3	3.6	6.23					
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	160	1.8 J	16000	0.5 U	0.5 U	0.5 U	26.1	1.5 U	20.2	0.64	6.37					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR- 4SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	19	1100	11	5.5 J	81	2 J	5.4	1500	77	97	3.9 J	1560	17.1 J	91.7	1.6	6.01					
08/2011	50 U	50 U	1200	21 J	50 U	120	5 U	5 U	7800	50 U	50 U	50 U	993	1.8 J	73.1	0.34	6.3					
11/2011	25 U	25 U	25 U	17 J	25 U	25 U	3.5 J	15	12000	25 U	25 U	25 U	352	2.7 J	46.4	0.19	6.23					
03/2012	50 U	50 U	50 U	13 J	50 U	50 U	3.3 J	5 U	12000	50 U	50 U	50 U	98.6	1.6 J	42.6	0.21	6.12					
06/2012	0.8 U	1 U	0.8 U	13	0.8 U	1 U	2.2 J	1 U	12000	0.8 U	1 U	1 U	84.7	2.2 J	42.7	0.21	6.43					
09/2012	0.8 UJ	1 U	0.8 U	5.6	0.8 U	1 U	2.9 J	1 U	11000	0.8 U	1 U	1 U	79.7	1.5 UJ	41.8	0.18	6.64					
12/2012	0.8 UJ	1 U	0.8 U	1.5 J	0.8 U	1 U	2.6 J	1 U	3500	0.8 U	1 U	1 UJ	68.3	1.8 J	42	0.16 J	6.51					
04/2013	0.8 U	6.9	1 J	0.8 U	0.8 U	1 U	1.4 J	1 U	8100	0.8 U	1 U	1 U	54.6	2.8 J	48.2	0.15 J	6.39					
07/2013	8 U	10 U	8 U	8 U	8 U	10 U	2.5 J	1 U	12000	8 U	10 U	10 U	52	5.2	46.4	0.29						
10/2013	0.8 UJ	8.4 J	0.8 UJ	0.8 UJ	0.8 UJ	1 UJ	1.6 J	1 U	9200	0.8 UJ	1 UJ	1 UJ	62.8	14.7	43.7	0.21	6.5					
12/2013	0.8 U	2.3 J	0.8 U	0.8 U	0.8 U	1 U	1.9 J	1 U	14000	0.8 U	1 U	1 U	71.9	11.9	40.1	0.23	6.22					
04/2014	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.6 J	1 UJ	17000 J	0.5 U	0.5 U	0.5 U	63.4	165 J+	26.8	0.67	6.22					
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9.8 J	1 UJ	12000 J	0.5 U	0.5 U	0.5 U	56.1	1.5 U	34.3	0.34	6.16					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR- 5SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	4 U	5 U	3100	31	5.4 J	350	3.3 J	48	3200	4 UJ	5 U	5 U	281	15	2.53	26.3	5.82					
08/2011	5 U	5 U	42	32	5 U	63	21	610	7600	5 U	2.4 J	5 U	203	12.4	0.676	49.6	6.54					
11/2011	5 U	5 U	2.9 J	28	5 U	9.4	220	440	14000	5 U	1.9 J	5 U	213	4.1 J	1.5	8.6	6.61	2.0E+03	1.6E+04	6.1E+04	2.5E+04	1.3E+05
03/2012	5 U	5 U	43	65	5 U	45	400	450	15000	5 U	2.3 J	1.8 J	258	2.4 J	12.1	4.2	5.87	2.2E+04	2.1E+03	3.8E+05	2.2E+04	3.7E+05
06/2012	0.8 U	1 U	5.3	56	0.8 U	11	130	76	12000	0.8 UJ	1.7 J	1.9 J	139	1.5 U	11.3	3.1	6.38	2.6E+03	1.0E+03	4.8E+04	2.8E+03	9.1E+04
09/2012	0.8 U	1 U	2.3 J	4.9 J	0.8 U	16	110	23 J	12000	0.8 U	1.2 J	2.1 J	36.4	1.5 UJ	5.4	1.3	6.4	2.5E+02	6.0E+02	2.0E+03	7.9E+02	7.1E+03
12/2012	0.8 U	1 U	2.6 J	0.8 U	0.8 U	13	190	20	15000	0.8 U	1.2 J	1 U	32.5	1.9 J	6.52	1.2	6.38	3.0E+02	4.6E+01	6.1E+03	3.6E+02	1.4E+02
04/2013	0.8 U	1 U	72	2.6 J	0.8 U	230	380	400	28000 J	0.8 U	1 U	1.6 J	12.8	276	11.5	1.7	6.68	1.3E+04	3.4E+02	1.1E+05	5.9E+03	8.7E+02
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1.6 J	350	10	15000	0.8 U	1.4 J	1.4 J	20.6	3 J	3.19	3.6	6.5	1.8E+03	1.4E+02	1.8E+04	2.0E+03	3.1E+03
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	130	1.7 J	16000	0.8 U	1.6 J	1 U	21.7	1.5 U	7.77	1.7	6.16	2.0E+03	5.9E+02	3.2E+04	4.3E+03	6.0E+02
12/2013	0.8 U	1 U	1.3 J	0.8 U	0.8 U	2.3 J	180	6.6	16000	0.8 U	1.2 J	1 J	29.8	9.4	10.7	1.1	6.15	1.6E+03	7.9E+01	4.4E+03	8.0E+02	3.3E+02
04/2014	0.5 U	0.5 U	3.2	3.6	0.5 U	7.5	820	140	25000	0.5 U	1.1	1.1	15.4	183	7.76	2.4	6.08	3.4E+03	6.6E+01	7.8E+03	2.5E+01	8.3E+03
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	190	2.7 J	20000	0.5 U	1.2	1.4	20.8	1.5 U	7.47	1.4	6.15	1.0E+04	6.0E+02	1.7E+05	1.3E+02	1.1E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR- 6SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	4 UJ	10 J	4500 J	62 J	8.2 J	530 J	3.4 J	11 J	810 J	4 UJ	22 J	5 UJ	1420	263	97.7	1.2	5.46					
08/2011	25 U	25 U	2500	34	25 U	430	5 U	12	6600	25 U	7.3 J	10 J	1730	6.3	143	0.49	6.26					
11/2011	5 U	5 U	78	52	5 U	130	6.8	250	7000	5 U	5.2	16	982	4.7 J	97.7	0.9	6.73	1.1E+05	1.3E+04	5.5E+05	8.5E+04	1.6E+06
03/2012	50 UJ	50 UJ	530 J	56 J	50 UJ	420 J	49	140	13000	50 UJ	50 UJ	50 UJ	336	45	62.9	0.91	6.26	5.6E+04	1.0E+04	8.8E+05	2.8E+04	8.5E+05
06/2012	8 UJ	10 UJ	950 J	110 J	8 UJ	420 J	94 J	180 J	8000	8 UJ	10 UJ	19 J	243	6.5 J	45.4	3.4	6.43	2.6E+04	3.2E+03	8.5E+05	8.8E+03	6.3E+05
09/2012	0.8 U	1 U	3.8 J	12	0.8 U	4.4 J	42	1 U	8600	0.8 U	1 U	3.9 J	150	1.5 UJ	45.6	0.31	6.55	8.9E+02	5.0E+02	1.5E+04	7.1E+02	5.4E+04
12/2012	0.8 U	1 U	81	13	0.8 U	74	71	20	13000	0.8 U	1 U	2.7 J	91	53.6	38	1.4	6.5	1.0E+03	4.8E+02	2.9E+04	4.5E+02	3.0E+03
04/2013	0.8 U	3.6 J	8900	260	7.3	3000	1000	660	10000 J	3.6 J	12	1 U	64.9	254	15.2	18.4	6.8	3.8E+03	1.8E+03	5.1E+05	1.3E+04	4.9E+03
07/2013	2 U	9.3 J	10000	330	6.7 J	3100	900	670	9000	2 U	14	13	85	90.2	7.15	31.6	6.78	1.4E+03	1.8E+02	2.5E+04	7.0E+03	7.4E+03
10/2013	8 U	10 U	120	36 J	8 U	77	130 J	240 J	9500 J	8 U	10 U	10 U	88.3	4 J	7.04	10	6.52	1.4E+03	4.7E+02	1.1E+05	3.8E+04	1.3E+03
12/2013	0.8 U	1 U	800	32	0.8 U	180	88	74	12000	0.8 U	2.3 J	3.1 J	62.9	43.5	7.06	6.3	6.47	3.2E+03	3.2E+02	5.6E+04	4.6E+04	1.1E+04
04/2014	2.5 U	2.5 U	3800	90	4.8 J	1200	220 J	220 J	8300 J	2.5 U	4.5 J	3.6 J	48.3	143	7.61	15.7	6.36	2.5E+03	2.4E+02	3.2E+04	1.0E+03	1.7E+04
08/2014	2.5 U	4.6 J	3900	120	2.5 U	870	240	310	8500	2.5 U	6.2	2.5 U	50.8	37.4	4.66	28.6	6.41	2.1E+04	7.7E+02	7.6E+05	1.6E+03	5.5E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR- 9SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	6.6 J	870	22	1.6 U	190	2.8 J	6.1	1700	1.6 U	2 U	2 U	830	24.6 J	9.48	18.6	5.8					
08/2011	25 U	95	8400	38	43	1100	2.7 J	58	4200	320	230	27	1290	66.5	35.7	6.4	5.71					
11/2011	5 U	5 U	26	10	5 U	18	16	78	11000	5.3	44	74	384	6.5	7.49	11.7	6.54					
03/2012	5 U	1.1 J	38	3.9 J	5 U	23	35	30	17000	4.4 J	6.5	13	56.4	48.6	0.0153 J	99.7	6.77					
06/2012	8 U	16 J	4000	19 J	12 J	910	14	170	13000	73	25 J	20 J	172	115 J	0.195 J	34.2	6.44					
09/2012	0.8 UJ	1.1 J	300	5.2	2 J	150	8	46	12000	9.9	7.4	14	67.1	30.6 J	0.164 J	25.8	6.22					
12/2012	0.8 U	1.7 J	350	3.3 J	2.2 J	130	6.6	29	14000	17	7.1	14	26.6	82.4	0.0333 U	42.7	6.42					
04/2013	0.8 U	1.5 J	530	3.8 J	2.3 J	290	50	160	16000 J	13	6.7	4 J	13.9	172	0.0333 U	104	7.07					
07/2013	0.8 U	4 J	1800	10	7.8	540	10	73	18000	27	12	4.7 J	19.3	104	0.043 U	60.9	6.67					
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1.6 J	8.1	6.8	13000	0.8 U	1 U	2.6 J	13.9	30.8	0.462	28.3	6.5					
12/2013	0.8 U	1 U	2.1 J	0.8 U	0.8 U	5.3	25	9.8	22000	0.8 U	1 U	1.6 J	10.1	32.2	0.043 U	37.6	6.84					
04/2014	0.5 U	0.5 U	1.6	0.5 U	0.5 U	3.2	15	7.3	4700	0.5 U	0.5 U	0.5 U	6.1	219	0.212 J	7.9	7.25					
08/2014	0.5 U	0.5 U	3.4	0.78 J	0.5 U	4.2	20	16	18000	0.5 U	1.3	0.5 U	15.7	27.1	0.0334 U	74.5	6.71					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR-10SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 UJ	3.1 J	270 J	3.6 J	2.6 J	37 J	1.5 J	3.5 J	690 J	14 J	42 J	1.9 J	1650	287 J	98.2	1.7	6.08					
08/2011	50 U	50 U	940	11 J	50 U	210	1.2 J	13	5200	28 J	73	15 J	1690	17.6	113	0.62	4.79					
11/2011	5 U	5 U	3.2 J	5.9	5 U	5.1	11	18	13000	5 U	9.5	39	616	4 J	62.6	0.14 J	6.86					
03/2012	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	9.5	5 U	9500	50 UJ	50 UJ	28 J	154	38.5	25.8	1.2	6.32					
06/2012	0.8 UJ	1 UJ	0.8 UJ	2.5 J	0.8 UJ	1 UJ	6.3 J	1 UJ	11000	0.8 UJ	1 UJ	12 J	102	27.8 J	14.6	3.1	6.9					
09/2012	0.8 UJ	1 U	0.8 U	2.8 J	0.8 U	1 U	14	1 U	7000	0.8 U	1 U	15	83.8	1.5 UJ	12	1	6.93					
12/2012	0.8 U	1 U	3.5 J	0.8 U	0.8 U	13	6.6	8.4 J	13000	0.8 U	1 U	5.9 J	36.4	33.9	8.64	1.6	6.47					
04/2013	0.8 U	1 U	0.8 U	0.84 J	0.8 U	1 U	30	1.2 J	18000 J	0.8 U	1 U	12	31.2	226	4	13.5	6.48					
07/2013	0.8 U	1 U	0.8 U	0.84 J	0.8 U	1 U	11	1 U	10000	0.8 U	1.1 J	5.5	33.7	107	1.96	25.6	6.66					
10/2013	8 U	10 U	55	8 U	8 U	170	19	130	16000	8 U	10 U	10 U	30.8	16.1	1.94	16.9	6.5					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	15	1 U	17000	0.8 U	1 U	2.5 J	28.1	73.3	4.63	6.7	6.56					
04/2014	0.5 U	0.5 U	0.5 U	3.3	0.5 U	1.5	65	200	21000	0.5 U	3	5	14.6	70.8	0.655	100	6.83					
08/2014	0.5 U	0.5 U	0.5 U	2.6	0.5 U	1.2	34	46	10000	0.5 U	0.94 J	3.9	32.8	32.9	1.17	23.4	6.65					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-13SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	14	900	10	7.8 J	210	1.7 J	12	240	35	150	2.8 J	1710	357 J	121	1.4 J	5.49					
08/2011	50 U	50 U	460	8.6 J	50 U	160	5 U	23	4500	50 U	95	47 J	1830	17	135	0.67	6.27					
11/2011	25 U	25 U	66	6.3 J	25 U	59	1.3 J	23	8300	25 U	25	43	1020	2.5 J	102	0.42	6.7	1.5E+02	1.2E+03	4.3E+04	9.2E+04	6.4E+04
03/2012	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	8.6	21	6800	50 UJ	50 UJ	62 J	233	19	70.6	1.3	6.27	3.6E+02	7.6E+03	7.0E+05	4.9E+04	3.2E+05
06/2012	0.8 U	1 U	0.91 J	11	0.8 U	1 U	7.4	6.8	7700	0.8 UJ	6.9	44	192	14.2 J	51	0.63	6.49	1.4E+02	3.0E+03	1.0E+05	7.1E+03	8.0E+04
09/2012	4 U	5 U	4 U	4 U	4 U	5 U	3.3 J	1 U	6800	4 U	5 U	18 J	146	1.5 U	53.3	0.21	6.39	2.0E+01	6.4E+02	1.2E+04	1.4E+03	1.3E+04
12/2012	0.8 U	1 U	0.8 U	2.2 J	0.8 U	1 U	4.3 J	1 U	13000	0.8 U	1 U	16	95.4	14.6	37	0.79	6.93	7.0E+00	1.2E+02	1.1E+03	5.2E+01	8.2E+00
04/2013	0.8 U	1 U	0.8 U	1.8 J	0.8 U	1 U	7.7	5.2	15000	0.8 U	1.9 J	17	54.9	50	25.5	11.4	6.58	2.5E+01	1.6E+03	6.1E+03	7.0E+02	1.6E+01
07/2013	0.8 U	1.2 J	0.8 U	1.1 J	0.8 U	1 U	1.9 J	1.1 J	8200	0.8 U	1 U	13	54.8	3.5 J	18.7	6	6.6	1.4E+02	3.7E+02	1.3E+02	4.7E+01	5.9E+00
10/2013	8 U	10 U	8 U	8 U	8 U	10 U	2.7 J	1.9 J	12000	8 U	10 U	10 U	51.3	13.4	20.1	4.5	6.4	5.7E+00	1.0E+03	1.1E+03	2.8E+02	8.2E+00
12/2013	4 U	5 U	4 U	4 U	4 U	5 U	3.1 J	1 U	12000	4 U	5 U	6.7 J	56.9	2.5 J	23.1	1.6	6.58	1.4E+00	3.0E+02	5.3E+02	2.2E+01	4.3E+01
04/2014	0.5 U	0.5 U	0.5 U	0.94 J	0.5 U	0.86 J	17	17	17000	0.5 U	2	6.8	32.1	176	13	10	6.45	1.4E+01	4.3E+02	5.2E+02	6.5E+00	4.6E+02
08/2014	0.5 U	0.5 U	0.5 U	0.79 J	0.5 U	0.53 J	14	3.4 J	16000	0.5 U	0.5 U	7.4	45.9	28.3	8.12	17.7	6.25	2.8E+01	4.3E+02	1.3E+04	1.8E+01	5.2E+02

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-14SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	2 U	450	2.9 J	1.6 U	17	1.5 J	2.4 J	6300	1.6 U	2 U	2 U	2030 J	11 J	136	0.52 J	5.28					
08/2011	50 U	50 U	350	50 U	50 U	50 U	5 UJ	5 UJ	5500 J	50 U	50 U	50 U	1870	2.1 J	122	0.15 J	6.43					
11/2011	25 U	25 U	25 U	25 U	25 U	25 U	5 UJ	1.9 J	9300	25 U	25 U	25 U	426	3.1 J	76.5	0.12 J	6.97	5.3E+02	2.4E+03	5.0E+04	1.4E+04	2.0E+05
03/2012	50 U	50 U	50 U	50 U	50 U	50 U	5 U	5 U	9300	50 U	50 U	50 U	202	33.3 J	69.3	0.11 J	6.07	1.1E+03	1.5E+04	1.8E+05	2.6E+04	3.1E+05
06/2012	8 UJ	10 UJ	8 UJ	8 UJ	8 UJ	10 UJ	3.6 J	2.1 J	11000	8 UJ	10 UJ	10 UJ	179	217	51	1.4	6.67	4.1E+01	1.9E+03	1.7E+04	9.9E+02	3.0E+04
09/2012	0.8 U	1 U	0.8 U	0.97 J	0.8 U	1 U	2.6 J	1 U	7700	0.8 U	1 U	1 U	162	51.9	40.1	2.7	6.8	1.1E+01	5.0E+02	3.9E+03	2.5E+02	4.3E+03
12/2012	4 U	5 U	4 U	4 U	4 U	5 U	4.9 J	3.8 J	12000	4 U	5 U	5 U	146	196	38.6	4.8	6.24	9.7E+01	2.7E+02	2.5E+03	2.6E+02	1.7E+03
04/2013	0.8 U	1 U	0.8 U	0.85 J	0.8 U	1 U	5.7	4.9 J	14000	0.8 U	1 U	1 U	99.7	233	17.4	7.4	6.6	7.4E+01	2.1E+03	1.1E+04	9.9E+02	5.1E+01
07/2013	0.8 U	1 U	0.8 U	0.8 J	0.8 U	1 U	6	6.9	11000	0.8 UJ	1 U	1 U	99.1	319	9.61	13.4	6.68	1.4E+02	5.3E+02	1.7E+03	1.4E+02	1.3E+02
10/2013	8 UJ	10 UJ	8 UJ	8 UJ	8 UJ	10 UJ	14 J	14 J	12000 J	8 UJ	10 UJ	10 UJ	79.8	19.6	5.14	8.4	6.58	3.3E+02	1.2E+03	6.2E+03	6.6E+02	1.0E+02
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1.9 J	8.4	7.5	11000	0.8 U	1 U	1 U	82.6	273 J	3.49	33.5	6.61	1.6E+03	9.2E+02	7.8E+03	2.0E+02	1.4E+03
04/2014	0.5 U	0.5 U	0.5 U	0.62 J	0.5 U	1.4	8.3 J	5.1 J	15000 J	0.5 U	0.5 U	0.5 U	81.8	48.9	2.84	37.5	6.62	5.7E+02	7.4E+03	7.1E+02	4.1E+01	5.1E+02
08/2014	0.5 U	0.5 U	3.9	0.5 U	0.5 U	14	9.7	19	18000	0.5 U	0.5 U	0.5 U	52	130	2.23	21.2	6.19	8.7E+02	2.8E+02	4.3E+04	2.0E+01	2.6E+03

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR-15SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	4.6 J	120	2.4 J	0.8 U	50	3 J	7.2 J	1900 J	0.8 U	1 U	1 U	2190	11 J	167	0.5	6.5					
08/2011	50 U	50 U	180	50 U	50 U	58	5 UJ	2.2 J	7200 J	50 U	50 U	50 U	2060	1.9 J	167	0.12 J	5.15					
11/2011	25 U	25 U	25 U	4.3 J	25 U	25 U	2.5 J	8.2 J	9000	25 U	25 U	25 U	682	5 U	106	0.16 U	6.75					
03/2012	50 U	50 U	50 U	50 U	50 U	50 U	3.6 J	5 U	8200	50 U	50 U	50 U	270	2.2 J	95.7	0.071 J	6.51					
06/2012	0.8 U	1 U	0.8 U	2 J	0.8 U	1 U	1.7 J	1 U	8300	0.8 U	1 U	1 U	267	1.5 U	67.3	0.054 U	6.64					
09/2012	0.8 UJ	1 U	0.8 U	0.8 U	0.8 U	1 U	2.3 J	1 U	11000	0.8 U	1 U	1 U	237	1.5 UJ	68.8	0.054 U	6.98					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.8 J	1 U	11000 J	0.8 U	1 U	1 U	250	1.5 U	76.3	0.054 U	6.98					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	2.3 J	1 U	17000	0.8 U	1 U	1 U	177	1.5 U	78.6	0.054 U	6.79					
07/2013	8 U	10 U	8 U	8 U	8 U	10 U	1.4 J	1 U	10000	8 U	10 U	10 U	173	1.5 U	71.4	0.055 J	6.54					
10/2013	40 UJ	50 UJ	40 UJ	40 UJ	40 UJ	50 UJ	1.1 J	1 U	14000	40 UJ	50 UJ	50 UJ	171	1.5 U	71.3	0.054 U	6.51					
12/2013	8 U	10 U	8 U	8 U	8 U	10 U	2.2 J	1 U	11000	8 U	10 U	10 U	170	1.5 U	72.7	0.054 U	6.75					
04/2014	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	1.9 J	1 UJ	15000 J	5 UJ	5 UJ	5 UJ	120	7.4	69.8	0.078 J	6.6					
08/2014	5 U	5 U	5 U	5 U	5 U	5 U	7.6 J	1 UJ	11000 J	5 U	5 U	5 U	136	1.5 U	66	0.069 J	6.34					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: OR-18SM

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	2.3 J	370	6.6	0.8 U	180	5.5	20	2800	0.8 U	1.3 J	1 U	549	968 J	21.2	27	6.84					
08/2011	50 U	50 U	390	50 U	50 U	150	2.2 J	14	7800	50 U	50 U	50 U	485	600	0.767	89.4	6.27					
11/2011	5 U	5 U	17	2.1 J	5 U	29	3.7 J	26	15000	5 U	5 U	5 U	62.1	581 J	0.0159 J	92.8	6.69					
03/2012	5 U	5 U	3.4 J	3.3 J	5 U	13	8.8	28	12000	5 U	5 U	5 U	64.9	348 J	0.0529 J	44.3	6.15					
06/2012	0.8 U	1 U	9.4	3.7 J	0.8 U	22	14	38	17000	0.8 U	1 U	1 U	105	280	0.0597 J		6.49					
09/2012	0.8 UJ	1 U	9.3	4.1 J	0.8 U	30	18	190	7900	0.8 U	1 U	1 U	88.1	255 J	0.0333 U	81	6.26					
12/2012	0.8 U	1 U	160	7	0.8 U	210	12	340	14000 J	0.8 U	1 U	1 U	27.4	257	0.0333 U	68.8	6.89					
04/2013	0.8 U	1 U	16	2.3 J	0.8 U	22	23	27	16000	0.8 U	1 U	1 U	22.3	226	0.0333 U	29.6	6.9					
07/2013	0.8 U	1 U	5.7	1.4 J	0.8 U	14	18	26	11000	0.8 U	1 U	1 U	5.7	398	0.043 U	32.6	6.75					
10/2013	0.8 U	1 U	79	2.7 J	0.8 U	82	16	110	13000	0.8 U	1 U	1 U	14.9	210	0.043 U	67.5	6.42					
12/2013	0.8 U	1 U	16	1.5 J	0.8 U	33	15	52	17000	0.8 U	1 U	1 U	21.2 J	121	0.043 U	70.8	6.44					
04/2014	0.5 U	0.5 U	43	1.7	0.5 U	35	21	94	19000	0.5 U	0.5 U	0.5 U	11.5	274	0.043 U	46.9	6.84					
08/2014	0.5 U	0.5 U	11	0.8 J	0.5 U	12	18	38	14000	0.5 U	0.5 U	0.5 U	7.6	261	0.0334 U	51.1	6.97					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 1D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	930 J	180000	36000	5000 U	5000 U	2100	5.1	19	120	5000 U	5000 U	5000 U	11.8	1460								
07/2008	280 J	17000 J	82000 J	200 J	260 J	3900 J	3.8 J	16 J	68 J	2500 UJ	2500 UJ	2500 UJ	22.4 J	2200 J								
10/2008	5000 U	38000	110000	1900 J	310 J	2200	14	23	230	5000 U	5000 U	5000 U	33.1	1210								
12/2008	2500 U	14000	130000 J	1500 J	280 J	4800	18	25	200	2500 U	2500 U	2500 U	44.5	1530								
06/2009	5000 U	53000	97000	5000 U	5000 U	3400	18	23	190	5000 U	5000 U	5000 U	49.3	1380	0.0661 J	63.9						
10/2009	5000 U	64000	100000	5000 U	5000 U	5200	23	30	210	5000 U	5000 U	5000 U	22.9	1350	0.0317 U	56.3						
07/2010	80 U	8800	78000	110 J	180 J	8800	26	54	170	80 U	100 U	100 U	10.4	1820 J	0.0522 U	20.4						
06/2011	150 J	22000	42000	80 U	130 J	1900	5 J	26	64	230 J	100 U	100 U	7.9	1580	0.606	2.5	7.1					
08/2011	250 U	1100	49000	85 J	130 J	3300	10	80	890	55 J	250 U	250 U	26	1470 J	0.086 J	68.9	7.45					
11/2011	45 J	25000	22000	250 U	58 J	550	5	28	83	120 J	250 U	250 U	36.5	664	0.157 J	44.7	6.86					
03/2012	100 U	2100	19000	36 J	49 J	1200	3.9 J	34	160	150	48 J	100 U	6.2	900	0.2 U	36.9	6.95					
06/2012	16 U	1900	26000	60 J	71 J	2100	4.9 J	61	2200	240	43 J	20 U	6.2	1150	0.0333 U	29	6.97					
09/2012	8 U	860	17000	36 J	41 J	2200	8.2 J	57 J	1100	200	43 J	10 U	6.4	700 J	0.036 J	21.2	7.02					
12/2012	16 U	180	36000	190	26 J	840	10	49	250	18 J	20 U	20 U	1550	6.8	240	3	5.75					
04/2013	40 U	230 J	43000	180 J	40 U	3100	36	140	2600	40 U	50 U	50 U	1380	5.5 J	180	14.4	5.89					
07/2013	0.86 J	12	750	4.7 J	0.93 J	60	1.5 J	20	3000	0.95 J	1 U	1 U	73.6	4.8 J	1.29	7.7	7.15					
10/2013	8 U	10 U	9500	18 J	8 U	3400	27	1500	11000	8 U	10 U	10 U	316	1.5 U	36.4	1.8	6.09					
12/2013	2 U	4.9 J	3300	15	6.2 J	3100	21	1500	8200	2.2 J	7.3 J	2.5 U	146	12.7	11.8	1.2	6.17					
08/2014	0.93 J	0.84 J	680	2.4	1.1	300	25	730	14000	0.5 U	3.3	0.5 U	233	1.5 U	63	0.14 J	7.07					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 1S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	8 U	13 J	6700	38 J	11 J	400	1.2 J	11	34	8 U	10 U	10 U	196	133	0.305	63.8	6.59					
08/2011	25 U	25 U	4800	94	5.1 J	2600	8.6	690	3500	25 U	25 U	25 U	503	5 U	21.6	2	6.23					
11/2011	5 U	5 U	150	81	5 U	320	270	2100	8100	5 U	2.9 J	1.8 J	561	3.1 J	30.6	2	6.3	7.3E+03	5.1E+02	3.1E+04	2.1E+04	3.4E+04
03/2012	5 U	5 U	390	74	4 J	660	1000	590	22000	5 U	2.6 J	2 J	88.3	4.9 J	5.24	1.6	6.51	2.3E+04	3.0E+03	1.8E+06	8.0E+04	1.4E+06
06/2012	0.8 U	1.4 J	200	27	1.1 J	160	1700	500	20000	0.8 U	1.1 J	1 U	29.3	14.7	1.63	8.9	6.57	4.4E+03	1.3E+03	7.9E+05	2.3E+04	6.0E+05
09/2012	0.8 U	1.9 J	290	8.7	1.7 J	310	1600	1000	15000	0.8 U	1.3 J	1 U	15.6	51.7 J	1.64	4.8	6.58	7.0E+04	1.7E+03	4.9E+04	5.3E+01	1.8E+02
12/2012	0.8 U	1.7 J	420	11	1.3 J	410	410	420	9600	0.8 U	1.4 J	1 U	7.2	95.9	0.414	2.4	7.23	6.5E+03	4.9E+01	1.3E+05	4.5E+03	8.0E+04
04/2013	1.3 J	110	710	16	3.5 J	380	240	340	15000 J	0.8 U	5.5	1 U	20.3	136	1.65	9.1	6.79	6.8E+03	1.2E+03	3.0E+05	1.7E+04	1.1E+03
07/2013	0.8 U	4.8 J	320	16	1.2 J	270	220	360	4500	0.8 U	7.1	1 U	37	46.4	0.043 U	20.1	7.41	3.4E+03	2.7E+01	3.6E+05	9.8E+03	3.4E+04
10/2013	0.8 U	2.1 J	1300	27	8.6	820	900	350	14000	0.8 U	7.4	1 U	33.4	10.8	0.0631 J	17.1	6.9	1.5E+03	1.1E+03	1.2E+05	5.4E+03	9.8E+03
12/2013	0.8 U	4.4 J	720	27	5.8	650	1000	500	20000	0.8 U	6.2	3.7 J	6	8.3	0.206 J	9.3		2.4E+05	7.8E+03	6.0E+06	4.4E+05	9.0E+05
04/2014	0.5 U	4.2	490	19	1.9	280	330	470	13000	0.5 U	3.8	1.4	7	35.2	0.656	13.6	6.8	3.4E+04	3.3E+03	1.4E+05	9.5E+02	8.4E+04
08/2014	0.5 U	1.3	250	14	0.61 J	210	390	440	7300	0.5 U	2.5	4.7	5.8	9.9	0.0419 J	14	7.4	1.6E+04	6.2E+02	1.7E+06	9.6E+02	2.4E+05

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 2D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	910 J	110000	27000	5000 U	5000 U	1600 J	6.9	19	87	5000 U	5000 U	5000 U	7.62	1410								
07/2008	5000 U	1100 J	150000	580 J	380 J	1800 J	7.6	34	110	5000 U	5000 U	5000 U	1020	1250								
09/2008	5000 U	3200 J	120000	680 J	210 J	2600	5.8	16	89	5000 U	5000 U	5000 U	748	843								
12/2008	1000 U	2300	76000	260 J	88 J	1600	6.6	9.3	39	1000 U	40 J	1000 U	194	270								
06/2009	2500 U	3600	61000	2500 U	2500 U	1400	14	50	390	2500 U	2500 U	2500 U	723	71.8	7.91							
10/2009	2500 U	3700	63000	140 J	2500 U	1400	9.3	26	110	2500 U	2500 U	2500 U	782	111	0.986	109						
07/2010	40 U	6900	100000	220 J	110 J	5000	11	200	660	40 U	63 J	50 U	442	69.6 J	0.105 J	165						
06/2011	160 U	12000	97000	270 J	160 U	1700	5.4	180	750	160 U	200 U	200 U	462	28.2 J	0.0272 J	210	5.83					
08/2011	500 U	15000	93000	250 J	140 J	2300	7.9	200	260	500 U	500 U	500 U	471	241 J	0.0279 J	207	6.77					
11/2011	1000 U	30000	130000	250 J	1000 U	3000	4.3 J	98	330	1000 U	1000 U	1000 U	356	76	1.21	165	6.5	1.6E+04	1.4E+04	1.6E+05	9.1E+03	8.0E+03
03/2012	310 J	49000	120000	210 J	180 J	2700	7.4	170	2000	500 U	500 U	500 U	137	665 J	0.0358 J	209	6.39	1.0E+04	2.2E+03	7.3E+03	4.0E+02	4.4E+03
06/2012	160	27000	80000	160	130	1700	19	180	2600	40 J	34 J	10 U	148	202 J	0.0141 U	150	6.68	8.2E+02	4.8E+02	4.8E+03	2.5E+02	4.3E+03
09/2012	73 J	16000	91000	190 J	160 J	2100	21	200	2200	40 U	50 U	50 U	215	118	0.0333 U	171	6.31	2.5E+03	3.0E+03	2.7E+04	8.1E+02	2.1E+03
12/2012	80 U	9500	150000	220 J	190 J	2500	14	160	2000	80 U	100 U	100 U	790	99.5	0.0569 J	106	6.3	6.5E+03	2.3E+03	1.2E+04	8.0E+03	9.6E+02
04/2013	40 U	700	130000	160 J	71 J	1500	15	140	2900	40 U	56 J	50 U	821	41.6	0.0333 U	206		1.8E+04	1.2E+04	4.6E+04	2.0E+03	9.2E+01
07/2013	40 U	1100	76000	94 J	52 J	2300	5 J	120	1800	40 UJ	50 U	50 U	288	180	0.043 U	193	6.68	2.5E+03	7.3E+03	1.8E+03	6.8E+02	1.3E+02
10/2013	160 U	9000	150000	230 J	160 J	3600	10	170	4700	160 U	200 U	200 U	485	81.6	0.043 U	223		4.6E+02	3.8E+02	8.9E+02	7.6E+02	1.7E+01
12/2013	140 J	22000	110000	180 J	140 J	4600	12	240	2800	80 U	100 U	100 U	286	300	0.043 U	159	6.64	2.6E+04	1.8E+03	3.9E+04	1.4E+04	2.9E+03
04/2014	120	8200	80000	160	120	8300	19	420	6700	50 U	50 U	50 U	163	206	0.043 U	141	6.73	4.5E+04	1.6E+03	1.8E+05	5.1E+02	9.9E+03
08/2014	50 U	2200	79000	180	120	18000	14	1700	9600	50 U	50 U	50 U	367	95.1	0.219 J	115	6.33	1.2E+05	5.4E+02	6.7E+05	2.8E+03	2.1E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 2S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	8 U	17 J	6000	66	9.2 J	710	2.5 J	19	370	8 U	10 U	10 U	292	87.2	1.54	45.8	6.18					
08/2011	25 U	25 U	2800	100	25 U	1400	9.5	1200	5900	25 U	25 U	25 U	447	5 U	10.4	9.1	6.19					
11/2011	5 U	5 U	630	88	1 J	680	150	1300	13000	5 U	2.8 J	5 U	437	2.6 J	23.9	1.7	6.12	1.5E+04	7.5E+02	5.3E+04	1.7E+04	1.4E+05
03/2012	10 U	10 U	1700	92	3.1 J	1300	300	390	14000	10 U	2.9 J	10 U	260	22.3	19.7	1.1	5.99	2.1E+05	7.3E+02	1.7E+06	8.8E+04	1.2E+06
06/2012	0.8 U	2.8 J	390	63	1.6 J	350	190	220	13000	0.8 UJ	2 J	1 U	234	1.8 J	21.6	1.1	6.54	1.2E+04	1.2E+03	4.2E+05	1.3E+04	3.5E+05
09/2012	1.6 U	2.7 J	550	31	1.6 U	490	220	130	14000	1.6 U	2 U	2 U	44.7	7.6	6.87	2.2	6.41	6.9E+03	1.2E+03	3.0E+05	2.9E+04	6.6E+04
12/2012	0.8 U	88	270	13	0.8 U	220	300	110	13000	0.8 U	1.1 J	1 U	19.4	34.1	5.73	0.89	6.58	5.1E+03	2.0E+02	1.0E+05	2.6E+03	6.6E+03
04/2013	0.8 U	1.5 J	180	7.1	0.8 U	130	340	74	20000 J	0.8 U	1.2 J	1 U	6.6	319	1.61	4.9	6.72	6.9E+03	4.1E+03	2.1E+05	1.1E+04	1.5E+03
07/2013	0.8 U	1 J	39	6	0.8 U	37	230	100	19000	0.8 UJ	1.8 J	1 U	21.4	5.3	0.671	10.3	6.51	2.6E+03	1.6E+02	2.4E+04	9.0E-01	8.6E+02
10/2013	0.8 U	1 U	100	9.1	0.8 U	130	380	300	16000	0.8 U	3.1 J	1 U	20.2	2.5 J	1.28	6.4	6.3	3.6E+03	5.9E+02	2.4E+05	1.2E+04	4.7E+03
12/2013	0.8 U	1 U	220	13	0.8 U	190	420	240	16000	0.8 U	2.8 J	1.3 J	26.1	1.6 J	5.6	1.5		8.2E+03	2.3E+02	5.1E+04	4.1E+03	7.2E+03
04/2014	0.5 U	2.5	320	13	0.89 J	260	160	100	19000	0.5 U	1.2	0.5 U	10.9	47.4	0.487	15.4	6.29	7.8E+03	2.7E+02	1.7E+04	1.1E+02	1.2E+04
08/2014	0.5 U	2.2	35	6.3	0.5 U	37	290	170	10000	0.5 U	1.8	5.1	6.4	3.3 J	0.111 J	13.8	7.01	1.6E+04	5.1E+02	1.1E+06	3.8E+03	7.7E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 3D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1400 J	240000	31000	5000 U	5000 U	640 J	9.6	20	82	5000 U	5000 U	5000 U	11	987								
07/2008	2500 U	540 J	83000	210 J	2500 U	760 J	16	24	120	2500 U	2500 U	2500 U	1800	1170								
09/2008	13 J	1000	9000	50 J	15 J	99 J	35	4.7	160	16 J	250 U	250 U	558	1010								
12/2008	250 U	550	5600	26 J	250 U	130 J	6.4	8.7	36	250 U	250 U	250 U	204	750								
06/2009	250 U	1200	9900	29 J	250 U	250	27	34	580	250 U	250 U	250 U	240	817	0.0562 J	166						
10/2009	250 U	2100	11000	32 J	30 J	150	25	15	250	250 U	11 J	250 U	141	858	0.0317 U	184						
07/2010	33 J	12000	29000	53 J	51 J	240	20	23	880	20 U	25 U	25 U	153	972 J	0.0522 U	156						
06/2011	57 J	19000	20000	46 J	55 J	540	16 J	13 J	2400 J	21 J	24 J	20 U	71.4	1060	0.0141 U	182	7.14					
08/2011	7.7 J	2600	4300	9.3 J	9.6 J	63	35	26	3300	25 U	6.7 J	25 U	107	731	0.2 U	211	7.17					
11/2011	50 J	11000	15000	26 J	31 J	430	22	50	2900	100 U	100 U	100 U	44.1	987	0.2 U	207	6.95					
03/2012	13 J	3300	6600	14 J	17 J	150	18	19	5800	25 U	15 J	25 U	132	482 J	0.2 U	224	6.83					
06/2012	20 J	5000	8900	18 J	20 J	210	5.3	14	1900	22 J	27 J	10 U	167	505 J	0.0333 U	173	6.67					
09/2012	38 J	5600	13000	25 J	31 J	290	29	58	4200	33 J	33 J	10 U	148	601	0.0333 U	173	6.87					
12/2012	30	3000	16000	20 J	22 J	270	14	18	3200	11 J	26	5 U	345	752	0.0333 U	323	6.36					
04/2013	40 U	1700	25000	40 U	40 U	350	12	28	5500	40 U	50 U	50 U	323	309 J	0.342	279	6.85					
07/2013	43 J	7400	66000	85 J	70 J	1100	15	72	5400	17 J	83 J	20 U	418	203	0.043 U	201	6.37					
10/2013	80 U	11000	57000	80 U	80 U	920	27	98	3300	80 U	100 U	100 U	351	326	0.043 U	252	6.45					
12/2013	40 U	6300	40000	56 J	51 J	630	26	76	2200	40 U	50 U	50 U	189	617	0.043 U	216	6.44					
04/2014	29 J	5100	77000	110	96	1700	24	270	4700	25 U	54	25 U	273	195	0.104 J	186	6.6					
08/2014	25 U	1200	61000	94	72	2000	33	340	8900	25 U	46 J	25 U	234	129	0.0334 U	179	6.65					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 3S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	40 U	50 U	45000	610	76 J	6800	22	100	720	40 U	50 U	50 U	212	332	1.33	46.3	5.9					
08/2011	12 J	84	61000	1100	110	12000	32	810	4700	50 U	33 J	50 U	238	404 J	1.72	17.3	5.08					
11/2011	250 U	250 U	43000	960	65 J	27000	99	1700	9400	250 U	250 U	250 U	229	444	5.66	3.9	6.51	9.0E+04	1.7E+03	1.8E+05	2.5E+04	3.6E+05
03/2012	500 U	610	99000	1600	190 J	19000	260	1300	9400	500 U	500 U	500 U	78.3	849	2.64	8.7		2.0E+05	8.3E+02	7.7E+05	1.9E+04	6.0E+05
06/2012	80 U	660	65000	1200	150 J	13000	280	930	10000	80 U	100 U	100 U	84.8	1010	4.3	3.2	6.25	2.2E+05	9.3E+02	1.1E+06	1.1E+04	2.0E+05
09/2012	40 U	210 J	39000	760	60 J	8500	320	800	11000	40 U	50 U	50 U	31.2	228	3.4 J	2.5	6.2	2.9E+05	2.6E+02	4.8E+05	2.5E+04	8.7E+04
12/2012	40 U	600	85000	1300	150 J	13000	290	430	12000	40 U	50 U	50 U	12.8	883	4.56	0.37	6.08	6.6E+04	1.2E+01	1.2E+05	2.2E+03	1.5E+04
04/2013	23 J	330	29000	510	44 J	4900	660	1500	17000 J	16 U	24 J	20 U	13.7	950	0.502	17.2	6.56	1.7E+05	8.5E+02	1.4E+06	8.6E+04	1.9E+04
07/2013	80 U	310 J	45000	810	83 J	7600 J	260	1300	12000	80 UJ	100 U	100 U	15.9	648	0.628	21.2	6.56	3.6E+04	1.0E+02	6.1E+04	3.6E+03	7.6E+03
10/2013	40 U	200 J	30000	610	59 J	5100	400	2100	9900	40 U	50 U	50 U	30.6	552	0.847	16.9	6.4	1.7E+04	2.3E+02	2.5E+04	1.2E+04	3.0E+03
12/2013	5 J	86	13000	290	25 J	3100	310	900	9800	4 U	11 J	5 U	22.3	670	0.301 J	18.3		8.9E+04	3.1E+02	4.1E+05	1.4E+05	4.4E+04
04/2014	10 U	27	14000	350	24	5800	380	1700	14000	10 U	12 J	10 U	13.9	547	1.32	22.3	6.2	5.9E+04	2.0E+02	8.1E+05	6.7E+02	1.2E+05
08/2014	10 U	110	26000	480	41	5000	320	1200	10000	10 U	16 J	10 U	18.5	347	0.214 J	23.4	6.36	1.1E+05	1.1E+02	9.2E+05	1.2E+03	7.7E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 4D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1100 J	220000	36000	5000 U	5000 U	690 J	10	17	94	5000 U	5000 U	5000 U	12.2	1080								
07/2008	5000 U	3500 J	160000	510 J	350 J	1100 J	12	38	110	5000 U	5000 U	5000 U	237	1520								
09/2008	1300 U	5900	91000	990 J	140 J	1400	9.1	10	77	1300 U	1300 U	1300 U	227	108								
10/2008																						
12/2008	1000 U	1000	22000	140 J	1000 U	680 J	17	14	120	1000 U	1000 U	1000 U	113	635								
06/2009	1000 U	11000	65000	180 J	1000 U	1100	11	30	150	1000 U	1000 U	1000 U	105	2000	0.0322 J	173						
10/2009	500 U	3200	16000	59 J	39 J	550	20	19	250	500 U	23 J	500 U	63.2	1240	0.0317 U	232						
07/2010	40 U	3500	22000	66 J	40 U	620	20	24	1600	40 U	50 U	50 U	89.1	1230 J	0.0522 U	191						
06/2011	91 J	73000	69000	210 J	180 J	1300	11	48	2000	80 U	100 U	100 U	128	922	0.0141 U	177	7.53					
08/2011	100 U	16000	21000	56 J	45 J	510	31	95	3900	100 U	22 J	100 U	113	652 J	0.2 U	175	7.3					
11/2011	31 J	13000	20000	58 J	49 J	640	16	120	3900	100 U	29 J	100 U	95.5	460 J	0.0183 J	224	6.39					
03/2012	9.9 J	4600	14000	50	47	730	17	160	3900	9.6 J	29	25 U	133	450 J	0.2 U	224	6.79					
06/2012	13	1900	1800	9.2 J	9.1 J	83	31	61	4200	7 J	4.3 J	2 U	144	203 J	0.0333 J	187	6.87					
09/2012	150	15000	30000	64 J	78 J	960	15	150	3800	130	71 J	20 U	120	256 J	0.0333 U	215	6.77					
12/2012	24 J	930	51000	54 J	31 J	700	14	110	5000	61 J	96 J	20 U	1020	283	0.0333 U	247	6.67					
04/2013	78 J	730	24000	90 J	45 J	2500	37	620	7700	40 U	61 J	50 U	85.5	895	0.0333 U	157	6.69					
07/2013	18 J	470	39000	74 J	30 J	1200	16	210	6100	16 U	94 J	20 U	253	151	0.043 U	375	6.88					
10/2013	80 U	1100	53000	97 J	80 U	1400	28	360	5600	80 U	110 J	100 U	261	300	0.043 U	305	6.62					
12/2013	160 U	730 J	74000	160 U	160 U	2100	27	360	6600	160 U	200 U	200 U	301 J	284	0.043 U	230	6.87					
04/2014	130 U	670	77000	130 U	130 U	2800	36	430	7700	130 U	130 U	130 U	280	106	0.043 U	188						
08/2014	50 U	370	71000	140	110	4100	36	660	9200	50 U	120	50 U	196	281	0.0601 J	197	6.83					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 4S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	4 U	78	2000	63	4 U	68	16	2.2 J	47	4 U	5 U	5 U	12.5	467 J	0.0141 U	0.054 U	7.38					
08/2011	4.4 J	130	3900	120	7.9 J	300	21	17	86	13 U	4.6 J	13 U	16.2	604	0.0149 J	0.16 U	6.77					
11/2011	50 U	250	8600	240	15 J	460	17	19	170	50 U	10 J	50 U	6.5	1310	0.145 J	0.16 U	6.39					
03/2012	9.7 J	340	14000	310	24 J	840	43	44	1600	50 U	14 J	50 U	3.5	1970	0.151 J	0.16 U	6.83					
06/2012	7.6 J	270	11000	280	20 J	660	38	110	2000	4.5 J	14 J	5 U	3.8	1400	0.0155 J	0.054 U	6.66					
09/2012	8 U	230	11000	270	20 J	1300	53	180	2500	8 U	12 J	10 U	5.8	1510	2.24 J	0.054 U	6.54					
12/2012	16 U	230	14000	350	22 J	860	68	53	6900 J	16 U	20 U	20 U	3.7	1980	0.991	0.054 U	6.65					
04/2013	3.2 J	270	13000	400	33	1100	110	48	11000	0.8 U	19	1 U	2.7	1770	0.386	0.054 U	6.64					
07/2013	8 U	180	12000	350	26 J	830	73	31	8200	8 U	14 J	10 U	3.4	1770	1.69	0.054 U	6.62					
10/2013	16 U	100	8500	240	17 J	560	220	49	9200	16 U	20 U	20 U	6.7	921	1.83	0.054 U	6.53					
12/2013	8 U	140	12000	320	25 J	750	130	48	7200	8 U	14 J	10 U	8.4	1530	1.07	0.054 U	6.18					
04/2014	5 U	130	7400	220	17	440	91	27	6000	5 U	8.9 J	5 U	5.8	1490 J+	2.22	0.054 U	6.61					
08/2014	2.5 U	39	6000	160	9.1	240	47	31	2900	2.5 U	7.2	2.5 U	23.9	820	3.58	0.078 J	6.45					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 5D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1700 J	91000	11000	2500 U	2500 U	420 J	5.9	19	60	750 J	2500 U	2500 U	4.8	710								
07/2008	5000 U	950 J	100000	430 J	5000 U	1800 J	10	72	120	5000 U	5000 U	5000 U	332	982								
09/2008	2500 U	4800	92000	500 J	200 J	2400	8.8	18	85	2500 U	2500 U	2500 U	383	730								
12/2008	2500 U	6900	71000	540 J	110 J	1300 J	15	21	100	2500 U	100 J	2500 U	196	352								
06/2009	1000 U	2100	27000	1000 U	1000 U	760	29	40	180	1000 U	1000 U	1000 U	306	179	0.0751 J	176						
10/2009	90 J	13000	73000	210 J	210 J	1900	20	35	200	1000 U	130 J	1000 U	351	490	0.0320 J	237						
07/2010	160 U	10000	94000	160 U	160 U	2300	17	130	290	160 U	200 U	200 U	334	171	0.0522 U	193						
08/2011	700	67000	69000	96 J	160 J	650	7.3	19	280	350	110 J	250 U	441	152	0.0212 J	241						
03/2012	500	47000	45000	56	120	580	24	140	1800	140	86	50 U	45.6	995	0.2 U	130						
06/2012	88 J	6800	8600	16 U	37 J	63 J	12	85	2400	44 J	20 U	20 U	57	246 J	0.0333 U	146						
09/2012	680	34000	34000	59 J	94 J	3700	14	150	4200	410	68 J	25 U	111	107 J	0.0333 U	146						
12/2012	80 J	1900	62000	40 U	40 U	1200	19	200 J	2900	140 J	100 J	50 U	1010	622	0.329	163						
04/2013	20 J	1200	45000	46	40	560	15	77	1500	99	85	5 U	455	97.7	0.0601 J	182						
07/2013	80 U	2700	52000	80 U	80 U	640	9.7	100	1300	80 U	100 U	100 U	293	83.3	0.043 U	188						
10/2013	90 J	8900	73000	91 J	81 J	2900	21	450	4600	44 J	97 J	50 U	254	326	0.043 U	184						
12/2013	250 J	21000	140000	150 J	210 J	4900	30	500	2600	80 UJ	140 J	100 U	307	150	0.043 U	161						
04/2014	520	25000	98000	190	170	4300	46	1100	6800	57	87	25 U	137	115	0.043 U	112						
08/2014	50 U	1300	88000	200	180	7400	41	1400	12000	50 U	59 J	50 U	142	413	0.0334 U	137	7.02					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 5S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	80 U	2400	62000	1000	120 J	13000	42	250	300	81 J	100 U	100 U	6.7	1650 J	7.2	0.054 U	6.6					
08/2011	250 U	3000	56000	830	110 J	12000	54	320	670	250 U	250 U	250 U	5.5	1960	0.48	0.16 U	6.64					
11/2011	500 U	2600	59000	810	110 J	9300	31	200	250	500 U	500 U	500 U	5.8	1630	0.278	0.16 U	6.73					
03/2012	250 U	3000	48000	940	90 J	7800	53	230	680	250 U	250 U	250 U	6.6	1540	0.0387 J	0.16 U	6.83					
06/2012	8 U	3100	57000	1000	100	9800	68	450	800	8 UJ	16 J	10 U	5.8	1530	0.0551 J	0.054 U	6.61					
09/2012	1.6 U	2400	56000	710	82	10000	51	360	810	9.3 J	13	2 U	5.3	1310	0.623	0.054 U	6.83					
12/2012	16 U	1600	29000	550	47 J	4900	33	180	930 J	16 U	20 U	20 U	10.3	1000	0.0851 J	0.054 U	6.7					
04/2013	4 U	2300	39000	720	69	7800	58	350	2100 J	4 U	11 J	5 U	5.9	1390	0.258	0.054 U						
07/2013	8 U	1900	37000	710	68	7200	39	230	2700	8 U	11 J	10 U	8	1440	0.205	0.054 U	6.89					
10/2013	40 U	2300	37000	790	76 J	7800	56	370	2600	40 U	50 U	50 U	6.9	1390	0.17 J	0.054 U						
12/2013	16 U	1700	27000	580	56 J	5100	45	250	3100	16 U	20 U	20 U	8.2	1120	0.0705 J	0.054 U	6.39					
04/2014	25 UJ	1800	26000	640	61	5100	46	350	5300	25 U	25 U	25 U	9.1	1310 J+	0.0849 J	0.054 U	6.84					
08/2014	25 U	1700	29000	570	43 J	3700	60	330	5800	25 U	25 U	25 U	7.1	2760 J-	0.427	0.054 U	6.83					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 6D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1000 J	100000	17000	5000 U	5000 U	820 J	6.5	16	62	500 J	5000 U	5000 U	6.68	1030								
07/2008	5000 U	2200 J	140000	380 J	5000 U	1200 J	11	37	100	5000 U	5000 U	5000 U	627	1220								
09/2008	2500 U	2800	92000	540 J	160 J	1900 J	12	14	71	2500 U	2500 U	2500 U	565	610								
12/2008	500 U	310 J	17000	230 J	29 J	170 J	3.6	12	56	41 J	500 U	500 U	266	4.02								
06/2009	500 U	110 J	11000	53 J	500 U	650 J	8.9	53 J	23	34 J	500 U	500 U	199	12.9	0.0619 J	40.5						
10/2009	250 U	42 J	8200	57 J	250 U	2800	21	710	1900	30 J	14 J	250 U	701	36.7	1.59	43.8						
07/2010	16 U	300	8100	54 J	19 J	4000	33	650	4500	16 U	36 J	20 U	870	3.2 J	0.079 J	92						
06/2011	7.9	400	610	59	8.3	2000	16	1800	9400	8	59	1 U	989	4.3 J	0.0369 J	113	6.4					
08/2011	6.2 J	510	2100	48	13	1900	60	1800	8000	4.3 J	50	10 U	817	6.8 J	0.016 J	147	6.83					
11/2011	4.1 J	100	89	4.7 J	1.4 J	35	1.8 J	63	1700	0.86 J	2.5 J	5 U	28.8	21.6	0.0203 J	6.3	11.77	4.4E+01	1.4E+01	3.0E+02	5.0E-01	9.8E+02
03/2012	5 U	40	200	41	5 U	68	35	2800	17000	5 U	36	5 U	443 J	12.5	0.2 U	81.6	6.88	6.8E+04	1.6E+04	3.2E+06	6.1E+02	2.4E+06
06/2012	8.6 J	2200	21000	83	26	1600	24	980	8000	4 UJ	75	5 U	578	1050 J	0.0336 J	84.4	6.99	2.1E+04	7.0E+03	1.9E+06	2.4E+02	1.2E+06
09/2012	2.1 J	660	5100	54	9.7	2100	7.2 J	1300 J	7200 J	3.8 J	46	1 U	563	2.1 J	0.0333 U	111	6.79	1.3E+04	1.2E+03	2.2E+06	8.7E+04	1.1E+06
12/2012	16 U	850	38000	78 J	38 J	1800	20	330	8100	16 U	74 J	20 U	502	24.1	0.0333 U	149	6.9	6.3E+03	2.2E+02	1.2E+05	6.6E+03	3.1E+04
04/2013	40 U	2400	44000	92 J	40 U	1000	9.7	99	2800	40 U	83 J	50 U	466	428 J	0.0333 U	152		3.0E+04	5.2E+02	2.0E+05	1.7E+04	6.8E+03
07/2013	16 U	460	14000	42 J	16 U	480	21	210	2600	16 U	30 J	20 U	366	401	0.043 U	167	7	1.7E+04	1.4E+03	1.6E+05	1.2E+04	1.5E+02
10/2013	8 U	100	9000	28 J	11 J	280	9.7	300	3700	8 U	19 J	10 U	108	8.1	0.0858 J	3	7.13	4.1E+04	7.5E+03	1.0E+06	4.4E+05	7.5E+04
12/2013	4.6 J	3600	30000 J	70	40	1900	29	1000	4000	2.6 J	60	2 U	271	254	0.043 U	132		1.2E+05	1.4E+03	9.7E+05	6.4E+05	1.4E+05
04/2014	0.5 U	6.5	520	6.8	0.93 J	150	1 U	55	360	0.5 U	3.5	0.5 U	53.3	37.1	0.352 J	2.7		2.5E+04	2.0E+02	1.5E+05	1.3E+03	4.1E+04
08/2014	5 U	890	18000	45	19	3000	36	1800	10000	5 U	37	5 U	291	325	0.156 J	32.5		3.1E+04	3.3E+03	1.4E+06	6.2E+03	1.7E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 6S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	16 U	28 J	10000	170	16 J	1400	13	59	1200	16 U	20 U	20 U	1400	244	104	1.3	5.59					
08/2011	25 U	22 J	8000	340	8.4 J	11000	30	630	4600	25 U	16 J	25 U	385	122	0.719	36.9	6.6					
11/2011	25 U	9.7 J	2700	270	25 U	3400	77	3900	8000	25 U	15 J	25 U	177	190	4.63	13.4	6.66					
03/2012	25 U	25 U	4300	220	8.2 J	3800	77	920	8700	25 U	8.4 J	25 U	48.3	372	29.6	0.35	6.58					
06/2012	8 U	10 U	3900	200	8 U	3100	78	510	11000	8 UJ	10 U	10 U	47.9	173 J	38.5	0.31	6.18					
09/2012	8 U	10 U	1500	88	8 U	2700	74	320	7900	8 U	10 U	10 U	56.3	140 J	35.7	0.26	6.76					
12/2012	1.6 UJ	4.1 J	3300	94	6.5 J	2400	68	360	10000	1.6 U	6.3 J	2 UJ	48.2	209	29.1	0.35	6.49					
04/2013	8 U	10 U	3300	110	8 U	1900	45	450	11000	8 U	10 U	10 U	39.8	184 J	27.8	0.68	6.38					
07/2013	0.8 U	2.1 J	1600	110	4 J	1600	22	220	6800	0.8 U	3.7 J	1 U	50.5	85.5	36.9	0.22	6.8					
10/2013	1.6 U	2 U	1000	57	1.9 J	1100	15	110	7400	1.6 U	2 U	2 U	55.8	88.2	32.3	0.25	6.37					
12/2013	1.6 U	4.5 J	2400	82	6.6 J	990	72	370	11000	1.6 U	4.1 J	2 U	45.7	137	27.5	0.32						
04/2014	0.5 U	14	8600	140	13	3600	110	520	11000	0.5 U	8.4	0.5 U	28.8	337	15.5	2.3	6.67					
08/2014	1 U	3.8	3300	93	5.5	1300	32 J	140 J	11000 J	1 U	3	1 U	42.9	134	24	0.22	6.19					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 7D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	950 J	160000	27000	5000 U	5000 U	860 J	7.2	18	80	5000 U	5000 U	5000 U	8.94	1170								
07/2008	5000 UJ	5000 UJ	120000 J	5000 UJ	5000 UJ	940 J	7.4 J	37 J	76 J	5000 UJ	5000 UJ	5000 UJ	417 J	984 J								
09/2008	5000 U	2300 J	100000	840 J	280 J	1700 J	7.5	13	59	5000 U	5000 U	5000 U	531	724								
10/2008																						
12/2008	1000 U	2400	84000	400 J	110 J	2600	7.8 J	6.3 J	230 J	1000 U	66 J	1000 U	476	72.3								
06/2009	2500 U	2600	50000	2500 U	2500 U	6300 J	9.9	120	2900	2500 U	2500 U	2500 U	483	42.4	0.0703 J	268						
10/2009	57 J	4500 J	58000	180 J	140 J	3900	10 U	420	4600 J	500 U	150 J	500 U	506	86.2	0.0461 J	178						
07/2010	24 J	1600	27000	63	66	790	33 U	150	7200	8 U	75	10 U	255	413	0.0522 U	195						
06/2011	270 J	45000	57000	120 J	150 J	1500	6.2 J	28 J	1600 J	89 J	100 U	100 U	58.1	1640	0.0354 J	155	6.8					
08/2011	150	19000	26000	48 J	61 J	530	15	57	1300	25 J	36 J	100 U	79.9	1890 J	0.0629 J	214	7.56					
11/2011	290	25000	32000	72 J	83 J	1400	11	160	4200	46 J	54 J	250 U	118	842 J	0.0461 J	168	5.99					
03/2012	180	15000	19000	42 J	43 J	890	17	270	4000	60 J	42 J	100 U	29.4	1020 J	0.0203 J	284	7.17					
06/2012	350	25000	31000	52 J	91 J	520	11	87	2600	270	77 J	50 UJ	25.5	950	0.0333 U	184	7.31					
09/2012	460	27000	32000	51 J	85 J	900	20	170	2900	260	81 J	25 U	29.1	358 J	0.0333 U	73.2	6.88					
12/2012	49 J	1200	51000	56 J	40 U	650	15	280	3900	78 J	120 J	50 UJ	689	965	0.13 J	293	5.95					
04/2013	68	840	28000	58	35 J	1000	32	430	4400	140	190	10 U	60.5	1300	0.0333 U	249	7.41					
07/2013	63 J	1400	21000	70 J	40 U	1300	34	340	4700	49 J	100 J	50 U	36.7	1150	0.043 U	220	7.34					
10/2013	86 J	830	31000	76 J	40 U	1800	30	400	8400	58 J	93 J	50 U	63.6	293	0.043 U	219	6.76					
12/2013	42 J	490	40000	66	49 J	1100	27	300	6200	89	270	10 U	72.9	927	0.043 U	228	6.99					
04/2014	60 J	1500	50000	94 J	76 J	2100	55	450	7100	50 U	69 J	50 U	81.3	1750	0.043 U	136	7.12					
08/2014	50 U	290	53000	110	65 J	2400	41	380	8000	50 U	92 J	50 U	88.9	990	0.0334 U	168	6.82					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 7D PUMP

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	2500 U	3500	86000	220 J	2500 U	6600	10 UJ	30 J	640 J	2500 U	180 J	2500 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 7D SNAP

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	2500 U	3600	73000	190 J	2500 U	3000	10 UJ	29 J	590 J	2500 U	130 J	2500 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 7S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	0.8 U	1 U	2 J	0.8 U	0.8 U	14	1.2 J	2.8 J	52 J	0.8 U	9.2	1 U	6.9	4820	3.14	0.054 U	6.53					
08/2011	5 U	5 U	13	5 U	5 U	11	5 U	1.2 J	18	5 U	140	5 U	7.6	4530	0.45	0.16 U	5.68					
11/2011	5 U	5 U	3 J	5 U	5 U	14	2 J	4.7 J	85	5 U	41	5 U	6	3840	3.17	0.16 U	6.66					
03/2012	5 U	5 U	11	5 U	5 U	1.7 J	5 U	5 U	7.4 J	5 U	84	5 U	6.3	3990	0.0784 J	0.16 U	0					
06/2012	0.8 U	1 U	3.7 J	0.8 U	0.8 U	2.8 J	1 U	1 U	10 J	0.8 UJ	54	1 U	6.3	4090 J	0.473	0.054 U	6.46					
09/2012	0.8 U	1 U	3.7 J	0.8 U	0.8 U	11	1 J	1 U	47	0.8 U	60	1 U	5.1	3900	0.607	0.054 U	6.77					
12/2012	0.8 U	1 U	9.8	0.8 U	0.8 U	1 U	1 U	1 U	4.9 J	0.8 U	150	1 U	3.5	2620	0.306	0.054 U	6.47					
04/2013	0.8 U	1 U	3.7 J	0.8 U	0.8 U	4.3 J	1 U	1.7 J	24 J	0.8 U	49	1 U	4	3300	0.621	0.054 U						
07/2013	0.8 U	1 U	5	0.8 U	0.8 U	1.3 J	1 U	1 U	6.9	0.8 U	78	1 U	4.5	3060	1.36	0.054 U	6.81					
10/2013	0.8 U	1 U	6.6	0.8 U	0.8 U	1.8 J	1 U	1 U	9.1	0.8 U	99	1 U	4.3	2900	0.594	0.054 U	6.55					
12/2013	0.8 U	1 U	4.9 J	0.8 U	0.8 U	1.2 J	1 U	1 U	3.9 J	0.8 U	83	1 U	5.3	2120	2.76	0.054 U						
04/2014	0.5 U	0.5 U	2	0.5 U	0.5 U	1.4	1 U	1 U	5.9	0.5 U	45	0.5 U	4	1140	0.043 U	0.054 U						
08/2014	0.5 U	0.5 U	5.6	0.5 U	0.5 U	1.6	1 U	1 U	4.3 J	0.5 U	120	2.1	16.7	1180	2.35	0.054 U						

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 8D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1200 J	240000	28000	5000 U	5000 U	1100 J	5.1	17	78	5000 U	5000 U	5000 U	10.6	1590								
07/2008	1000 U	2900 J	110000	300 J	240 J	1500 J	7.2	29	100	1000 U	1000 U	1000 U	551	1810								
09/2008	240 J	34000	76000	420 J	200 J	2100	5.9	16	92	2500 U	2500 U	2500 U	190	2410								
12/2008	600 J	66000	48000	310 J	95 J	2300	6.2	2.0	4.6	1300 U	1300 U	1300 U	263	1210								
06/2009	400 J	26000	21000	1000 U	1000 U	1200	8.0	39	400	1000 U	1000 U	1000 U	166	1810	0.0567 J	191						
10/2009	260 J	35000	54000 J	150 J	130 J	1900	6.1	32	100	1000 U	1000 U	1000 U	101	2110	0.0317 U	132						
07/2010	200	45000	48000	120	98 J	1500	7.1	89	74	16 U	32 J	20 U	105	2300 J	0.0522 U	170						
08/2011	170	27000	31000	82 J	77 J	2000	5.1	37	180	17 J	23 J	100 U	70.7	1720	0.2 U	249	7.03					
03/2012	400 J	24000	20000	73	74	1800 J	8.9	93	1800	110	45	5 U	57.1	1740	0.2 U	186	6.86					
06/2012	240	18000	15000	46 J	45 J	1000	6.6	82	1400	470 J	39 J	20 U	28.4	1700 J	0.0333 U	131	6.95					
09/2012	170	12000	19000	67	63	1900	17	210	2100	120	30 J	10 U	38.4	1650	0.0333 U	148	6.97					
12/2012	52 J	1600	15000	51 J	40 J	1900	9.4	190	2800	16 U	20 U	20 U	299	1480	0.0333 U	258	6.06					
04/2013	33	3400	31000	73	43	1800	6	97	2700	18	34	2 U	209	1510	0.0333 U	247	6.93					
07/2013	40 U	4600	33000	79 J	40 U	2300	8.3	130	1800	40 U	50 U	50 U	117	1790	0.043 U	157	6.65					
10/2013	52 J	9900	44000	40 U	40 U	3000	19	350	3000	40 U	50 U	50 U	129	1230	0.043 U	190	6.23					
12/2013	80 J	19000	50000	95 J	72 J	2700	24	310	3700	40 U	50 U	50 U	194	1340	0.043 U	126	6.65					
04/2014	26 J	3500	35000	79	43	2800	29	370	6400	10 U	23	10 U	117	986	0.0866 J	121	6.67					
08/2014	10 U	1800	23000	65	38	3100	19	270	3200	10 U	20	10 U	52.9	2010	0.0334 U	142	6.93					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 8S**

			Cis-1,2- DCE	Trans- 1,2- DCE	1,1- DCE	Vinyl chloride	Ethane	Ethene	Methane	1,1,1- Trichloro ethane	1,1- Dichloro- ethane	Chloro ethane	TOC	Sulfate	Iron	Sulfide	pH	BVC	DHBt	DHC	TCE	VCR
Date	(PCE) (ug/L)	(TCE) (ug/L)	(ug/L)		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(cells/ml)	(cells/ml)	(cells/ml)	(cells/ml)	(cells/ml)
06/2011	4 U	21 J	1800	13 J	18 J	140	2.3 J	6.6	86	260	110	5 U	608	1330 J	19.1	2.5	6.42					
08/2011	2.3 J	67	3500	18	16	380	2.6 J	23	310	240	89	13 U	291	1480 J	0.379	74.2	6.7					
11/2011	5 U	9.7	870	14	4.6 J	320	8.3	300	2300	83	67	4.8 J	41.3	1080	0.158 J	24.8	6.25					
03/2012	5 U	3.6 J	93	6.6	5 U	85	17	210	3300	24	27	3.2 J	16.7	1770	0.986	21.7	6.82					
06/2012	0.8 U	1 U	45	6.7	0.8 U	48	11	280	2500	25 J	29	1.5 J	16.6	2210 J	0.652	15.1	6.43					
09/2012	0.8 U	1.2 J	28	6.6	0.8 U	52	19	340	4100	24	30	14	52.4	823	0.68	22.9	6.76					
12/2012	0.8 U	4.4 J	310	4.5 J	1.6 J	210	13	160	5800	26	22	2.2 J	11	1460	3.6	8.6	6.56					
04/2013	0.8 U	2 J	63	1.6 J	0.8 U	150	18	280	4000 J	14	13	4.9 J	7.8	1670	3.5	13.6	6.61					
07/2013	0.8 U	3.3 J	150	2.2 J	0.8 U	200	17	320	5200	9.2	12	1.4 J	9.6	1790	1.7	15.6	6.8					
10/2013	0.8 U	2.6 J	60	2.7 J	0.8 U	89	11	130	11000	8.3	12	2.6 J	10.4	1110	2	17	6.59					
12/2013	0.8 U	4.1 J	39	3.8 J	0.8 U	50	24	310	12000	15	14	1.7 J	16.3	1100	0.953	16.5	6.78					
04/2014	0.5 U	1.7	12	0.72 J	0.5 U	12	13	32	4600	2.9	2.7	0.5 U	6.6	301	2.41	0.17	6.55					
08/2014	0.5 U	2.5	540	5.5	1.4	400	24	280	8400	5.5	6.2	0.5 U	13.9	503	0.0996 J	25.7						

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 9D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	2100	370000	59000	80 U	120 J	450 J	5.1	7.8	42	370 J	100 U	100 U	15.2	1020	0.187 J	4.5	7.08					
08/2011	1900	80000	130000	360 J	270 J	280 J	5.3	5.8	37	1600	500 U	500 U	1170	518 J	1.08	21.3	6.38					
11/2011	1900 J	190000	200000	2500 U	440 J	530 J	4.6 J	14	120	1200 J	2500 U	2500 U	281	249	0.165 J	127	6.41					
03/2012	900 J	150000	170000	220 J	330 J	650 J	8.9	87	850	400 J	1000 U	1000 U	118	361	0.2 U	99.1	6.41					
06/2012	600	77000	86000	120 J	170 J	610	23	110	3500	790 J	100 U	100 U	61.7	267 J	0.0333 U	124	6.8					
09/2012	450 J	67000	120000	200 J	330 J	3500	29	120	1700	120 J	100 U	100 U	109	5.1	0.0333 U	130	6.7					
12/2012	1900	73000	170000	290 J	190 J	810	64	100	820	200 J	100 U	100 UJ	4420	15.8	5.94	87.2	5.91					
04/2013	1000	52000	200000	330	160	1300	45	340	1200	16 U	51 J	20 U	2110	43.3	116	6	6.09					
07/2013	680	51000	190000	180 J	240 J	1700	70	1200	5700	40 U	50 U	50 U	1040	46.4	113	2.6	6.44					
10/2013	400 U	7700	170000	400 U	500 J	18000	70	1600	4900	1500 J	500 U	500 U	830	26.8	153	0.82	6.16					
12/2013	650	75000	160000	210 J	420 J	31000	62	1900	4400	80 UJ	100 U	100 U	381	102	30.9	8.1	6.59					
04/2014	38	1600	47000	120	160	70000	39	3000	3000	10 U	20 J	10 U	397	12.4	123	0.34	7.41					
08/2014	85	16000	110000	160	210	18000	59	3300	8800	25 U	25 U	25 U	160	72.8	1.27	48	6.86					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW- 9S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	2 U	2000	1200	10 J	5.8 J	84	13	12	130	2 U	2.5 U	2.7 J	4.6 J	3070 J	0.0141 U	0.054 U	6.55					
08/2011	10 U	2900	1700	14	9.7 J	91	14	9.6	120 J	10 U	10 U	5.7 J	4.9	3450 J	0.0324 J	0.16 U	7.4					
11/2011	25 U	2800	1800	17 J	9.5 J	66	5.4	2.8 J	30	25 U	25 U	9.1 J	3.4	5 U	0.0898 J	0.16 U	6.51	4.0E-01	1.0E+04	2.0E+01	4.0E-01	1.0E-01
03/2012	25 U	3400	3000	32	11 J	81	4.9 J	2.4 J	26	25 U	25 U	10 J	3.9	3780	0.2 U	0.16 U	6.51	6.8E+00	3.2E+03	1.5E+02	1.1E+01	3.0E-01
06/2012	0.8 U	5100	2700	32	14	93	8.8	7.1	91	1.5 J	1 U	8.4	3.4	3010 J	0.033 J	0.054 U	6.75	1.0E+00	1.2E+02	4.1E+02	3.9E+01	1.8E+00
09/2012	1.6 U	2400	1300	15	5.3 J	49	6	10	88	1.6 U	2 U	2 U	4.7	3380	0.262	0.054 U	6.48	7.0E-01	5.0E-01	7.0E-01	7.0E-01	7.0E-01
12/2012	8 U	4100	6500	62	12 J	12 J	2 J	1 U	3 U	8 U	10 U	10 U	4.6	3420	0.0839 J	0.054 U	7.07	5.0E-01	3.2E+01	2.8E+00	5.0E-01	5.0E-01
04/2013	0.8 U	4700	2500	27	11	49	3.8 J	2.7 J	51	1.6 J	1 U	5.2	2.7	2930	0.0333 U	0.054 U	6.81	1.6E+00	4.9E+01	2.6E+00	4.3E+00	5.0E-01
07/2013	4 U	5400	2500	21 J	8.9 J	40	3.1 J	2.3 J	53	4 UJ	5 U	5 U	2.7	3310	0.043 U	0.054 U	6.87	5.0E-01	8.1E+01	5.4E+00	4.7E+00	5.0E-01
10/2013	4 U	5700	3800	32	9.9 J	42	4.8 J	3.1 J	79	4 U	5 U	5 U	3.2	2870	0.043 U	0.054 U	6.63	5.0E-01	2.4E+01	2.3E+00	9.0E-01	5.0E-01
12/2013	8 U	3900	2100	18 J	8 U	30 J	3.5 J	1.7 J	43	8 U	10 U	10 U	5	1990 J	0.0943 J	0.054 U	6.84	1.1E+02	3.8E+01	3.3E+02	3.0E+02	1.1E+00
04/2014	5 U	4000	1700	14	6.5 J	43	6.9	4.5 J	140	5 U	5 U	5 U	5.1	2610	0.043 U	0.054 U	6.87	3.0E-01	6.0E+01	1.5E+00	1.0E-01	4.0E-01
08/2014	5 U	5000	8900	85	13	110	13	13	720	5 U	5 U	5 U	6	2630	0.0462 J	0.054 U	6.58	1.7E+00	4.5E+01	9.9E+01	8.0E-01	2.0E-01

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-10D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	170	5400	7300	15 J	82	260 J	1.3 J	12	48	1500	94	10 U	6.8	913	0.434	0.74	7.43					
08/2011	670	38000 J	12000	250 U	47 J	70 J	8.8	3.8 J	40	3300	250 U	250 U	7190	333 J	6.52	43.4	5.93					
11/2011	59	5700	14000	28 J	39 J	100	18	16	45	1700	120	50 U	637	42.3	12.2	110	6.2					
03/2012	68	12000	28000	47 J	53	220	33	75	170	410	190	50 U	648	44	52.1	30.9	5.87					
06/2012	40 U	750	30000	42 J	83 J	210 J	27	120	810	250	240 J	50 UJ	450	53.8	69.5	4.8	6.09					
09/2012	18 J	1200	22000	26 J	49 J	330	24	91	2000	170	180	20 U	310	28.6	51.4 J	2.8	6.39					
12/2012	350 J	52000	190000	160 U	160 U	520 J	9.1	35	980	370 J	200 U	200 UJ	878	6.7	42.4	4.7	5.79					
04/2013	170 J	7600	140000	160 U	210 J	3300	15	280	1200	380 J	260 J	200 U	652	22.9	124	7.9	5.98					
07/2013	21 J	860	91000	90 J	120	3400	12	360	2800	220	210	20 U	414	4.1 J	50.4	13.3	6.42					
10/2013	160 U	740 J	99000	160 U	190 J	23000	24	1700	7700	160 U	230 J	200 U	520	2.3 J	141	3.5	6.02					
12/2013	80 U	3100	87000	91 J	170 J	17000	18	2000	5600	160 J	240 J	100 U	452	19.1	63.2	11	6.21					
04/2014	10 U	360	37000	63	59	14000	27	8300	11000	68	150	10 U	325	1.5 U	82	1.8	7.03					
08/2014	50 U	800	87000	110	150	15000	28	6500	8300	160	360	50 U	434	7.7	13.1	11.2	6.37					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-10S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	1 U	1.5 J	0.8 U	0.8 U	23	1.8 J	1.1 J	19	0.8 U	1 U	1 U	6.2 J	2980 J	0.0776 J	0.054 U	6.06					
08/2011	5 U	5 U	5 U	5 U	5 U	1.9 J	5 U	5 U	6 J	5 U	5 U	5 U	5.5	3550 J	0.152 J	0.16 U	6.73					
11/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6.4 J	5 U	5 U	5 U	2.7	3080	0.245	0.16 U	7.04	7.0E-01	1.2E+02	7.0E-01	7.0E-01	7.0E-01
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.2 J	5 U	5 U	5 U	2.5	3150	0.2 U	0.16 U	6.94	5.8E+00	4.2E+01	1.6E+01	5.0E-01	5.0E+00
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	2.7 J	1 U	1 U	13 J	0.8 U	1 U	1 U	2.4	2820	0.0333 U	0.054 U	6.87	5.0E-01	3.8E+01	1.9E+00	5.0E-01	2.0E-01
09/2012	0.8 U	2.6 J	1.7 J	0.8 U	0.8 U	1 U	1 U	1 U	6.8 J	0.8 U	1 U	1 U	2.8	2980	0.0333 U	0.054 U		5.0E-01	1.6E+01	3.3E+00	1.0E+00	5.0E-01
12/2012	0.8 U	1.4 J	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.6	2930	0.0333 U	0.054 U	7.15	5.0E-01	3.3E+00	5.0E-01	5.0E-01	5.0E-01
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	3.2 J	1 J	1 U	44	0.8 U	1 U	1 U	2	2770	0.0333 U	0.054 U		5.0E-01	1.9E+02	4.1E+00	5.0E-01	5.0E-01
07/2013	0.8 U	7.6	0.96 J	0.8 U	0.8 U	1.3 J	1 U	1 U	7.6	0.8 U	1 U	1 U	1.9	2840	0.043 U	0.054 U	7	5.0E-01	2.4E+00	4.5E+00	4.2E+00	5.0E-01
10/2013	0.8 U	1.3 J	0.8 U	0.8 U	0.8 U	4.3 J	1.4 J	1 U	72	0.8 U	1 U	1 U	2.8	2710	0.043 U	0.054 U		5.0E-01	1.1E+01	2.6E+00	8.0E-01	5.0E-01
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	4.2 J	1.3 J	1 U	50	0.8 U	1 U	1 U	5.3	2550 J	0.043 U	0.054 U		8.0E-01	4.0E+00	6.3E+00	4.7E+00	1.0E-01
04/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.9	1 U	1 U	33	0.5 U	0.5 U	0.5 U	3.8	2690	0.043 U	0.054 U	6.53	2.2E+00	8.2E+00	4.1E+00	1.0E-01	2.0E-01
08/2014	0.5 U	0.87 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	3.2	2190	0.0334 U	0.054 U	6.98	1.9E+00	1.2E+03	3.8E+01	7.0E-01	1.0E-01

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-11D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	560	11000	2200	40 U	1000	78 J	2.3 J	2.5 J	16	78000	680	50 U	3.5	797 J	0.445	0.67	6.67					
08/2011	500	7600	2400	250 U	490	250 U	5 U	5 U	8.3 J	48000	270	250 U	11	833 J	0.495	10	5.36					
11/2011	46 J	570	1800	50 U	45 J	56	9	1.7 J	25	6600	110	50 U	129	425	0.562	39.1	6.65	1.1E+02	3.9E+03	5.7E+02	4.2E+02	2.6E+02
03/2012	200 J	4000	7200	250 U	400	64 J	47	7.8	79	46000	680	250 U	115	583 J	12.9	11.7	5.45	2.8E+02	2.0E+03	1.5E+03	1.2E+02	1.1E+03
06/2012	330	3200	6700	23 J	620	29	21	2.9 J	19	74000 J	520	5 U	26	896 J	3.62	12	6.31	8.6E+01	1.6E+03	7.1E+02	2.0E+01	2.2E+03
09/2012	440	2400	3600	15	310	11	7.4	1 U	9.3 J	43000	310	2 U	8.6	542	0.692	5.2	6.72	5.3E+00	1.7E+02	3.1E+01	2.1E+00	3.0E+01
12/2012	81 J	1300	7100	22 J	960	64 J	19	3.8 J	35	29000	460	20 U	268	309	0.26	73.9	6.3	4.8E+00	1.1E+01	1.1E+02	1.3E+02	1.5E+01
04/2013	120	670	5800	31	1900	240	4.1 J	18	190	32000	470	5 U	32.6	520	0.753	34.9	6.73	1.9E+03	1.6E+03	3.3E+02	1.9E+02	2.5E+01
07/2013	110	760	8200	31 J	370	1000	15	48	470	30000	800	10 U	21.6	409	0.215	63.6	7.12	7.1E+02	2.3E+02	1.3E+03	7.0E+02	7.7E+02
10/2013	83 J	480	5600	20 J	240	700	6.7	25	260	22000	480	20 U	9.9	492	0.254 J	33.2	6.65	4.3E+04	1.8E+03	9.9E+04	4.2E+04	5.5E+01
12/2013	130 J	650	3300	40 U	170 J	370	5.5	16	190	15000	360	50 U	11.6	532 J	0.163 J	22.1	7.2	1.1E+05	1.7E+03	2.8E+05	2.8E+05	2.0E+03
04/2014	79	330	2800	10	310	180	3.5 J	11	120	14000	310	5 U	7.5	630	0.194 J	11.9	7.21	7.1E+04	7.5E+02	2.9E+05	2.0E+03	3.5E+04
08/2014	54	340	5100	22	340	570	5.7	39	410	17000	800	10 U	11.3	472	0.0829 J	70.4	7.02	2.1E+05	3.0E+03	7.6E+05	9.1E+03	4.7E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-11S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	320	11000	210	31	2300 J	19	110	150	1.7 J	42	1 U	5.2	2230	0.0568 J	0.054 U	6.94					
08/2011	50 U	270	17000	210	38 J	3600	29	140	280	50 U	38 J	50 U	4.9	2110	0.356	0.16 U	6.66					
11/2011	50 U	170	8600	140	18 J	760	21	59	160	50 U	32 J	50 U	2.3	2330	0.0367 J	0.16 U	6.77					
03/2012	100 U	170	9100	170	27 J	2000	25	100	1900	100 U	41 J	100 U	2.2	1800 J	0.11 J	0.16 U	6.32					
06/2012	4 U	320	13000	230	32	2600	32	170	1800	4 UJ	47	5 U	2.1	1880	0.27	0.054 U	6.95					
09/2012	16 U	390	17000	270	42 J	3600	40	300	1100	16 U	46 J	20 U	1.9	1960 J	0.814	0.054 U	6.84					
12/2012	8 U	340	16000	220	31 J	2400	27	180	1200	8 U	43 J	10 U	2	1960	0.552	0.054 U	6.67					
04/2013	4 U	310	15000	220	33	3100	40	390	5000	4 U	42	5 U	2.5	1650	0.714	0.054 U	7.01					
07/2013	8 U	230	12000	200	25 J	2200	26	220	5700	8 U	36 J	10 U	2.7	1470	0.593	0.054 U	6.63					
10/2013	20 U	250	16000	210	33 J	3000	43	400	2500	20 U	42 J	25 U	2.7	1690	1.08	0.054 U	6.51					
12/2013	8 U	170	12000	180	27 J	2100	30	210	3500	8 U	38 J	10 U	4.3	1850	0.768	0.054 U	6.48					
04/2014	2.5 U	220	10000	170	28	2200	32	280	4300	2.5 U	30	2.5 U	8.2	1450	0.926	0.054 U	6.45					
08/2014	5 U	230	15000	220	31	2900	35	270	5000	5 U	41	5 U	3.3	1610	1.36	0.054 U	6.82					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-12D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	2900	29000	19000	160 U	460 J	740 J	9.7	41	85	660 J	200 U	200 U	47.7	792	2.25	16.2	7.6					
08/2011	6000	270000	95000	120 J	260 J	950	140 J	1900 J	180 J	140 J	500 U	500 U	818	645	22.7	1.8	6.6					
11/2011	1800 J	140000	250000	2500 U	570 J	910 J	100	1100	180	2500 U	2500 U	2500 U	242	780	26.1	3.6	6.88					
03/2012	2500 U	2500 U	370000	2500 U	1100 J	2500 U	49	210	86	2500 U	2500 U	2500 U	221	459 J	85.1	0.079 J	7.04					
06/2012	160 U	850 J	350000	160 U	910 J	210 J	38	140	110	160 U	200 U	200 U	169	291	59.8	0.054 U	7.17					
09/2012	190 J	5600	250000	160 U	600 J	280 J	36	120	120	200 J	200 U	200 U	87.8	6.5 J	1.65	16.2	7.67					
12/2012	380	1100	98000	140 J	92 J	460	28	77	210	76 J	90 J	50 UJ	3900	3.9 J	120	6.3	5.18					
04/2013	35	1300	19000	53 J	14	120	6.9	8.9	21	8.6 J	16	2.7 J	92.3	4.9 J	17.6	0.054 U	5.91					
07/2013	160 U	1600	230000	160 U	340 J	4800	46	440	2100	160 U	200 U	200 U	1150	9.4	166	3	6.31					
10/2013	160 U	6600	160000	160 U	300 J	33000	33	1200	1900	160 U	200 J	200 U	1200	16.1	278	0.53	5.79					
12/2013	80 U	5100	200000	160 J	470 J	40000	35	2200	2700	80 U	160 J	100 U	799	14.1	158	2.3	6.6					
04/2014	52 J	3800	82000	130	180	70000	28	5100	2400	50 U	99 J	50 U	526	5.2	184	0.65	7.06					
08/2014	150 J	19000	120000	230	260	40000	41	12000	7200	100 U	100 J	100 U	395	10.2	25.9	14.6	6.35					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-13D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	950 J	100000	18000	160 U	160 U	500 J	1.5 J	17	66	1100	200 U	200 U	8.9	959	1.11	5.7	7.08					
08/2011	85 J	5700	45000	81 J	98 J	110 J	4.8 J	7.9	40	1300	81 J	250 U	953	143	2.45	127	6.02					
11/2011	2100	170000	73000	110 J	250 J	240 J	24	19	29	750	120 J	500 U	4320	139	157	20.8	5.56					
03/2012	1100	190000	99000	140 J	270 J	180 J	15	43	46	470 J	140 J	500 U	360	179 J	8.13	115	5.48					
06/2012	370	38000	30000	60 J	150 J	100 J	37	230	37	350	99 J	50 U	618	104	69.5	10.6	6.12					
09/2012	570	66000	110000	80 U	480 J	350 J	49	380	80	80 U	120 J	100 U	367	87.3 J	20.1	35.1	6.13					
12/2012	3200	280000	120000	80 U	240 J	340 J	14	33	120	280 J	160 J	100 UJ	12.5 U	93	7.17	69.3	5.78					
04/2013	590 J	85000	120000	400 U	400 U	520 J	40	200	160	400 U	500 U	500 U	1500	46.4 J	266	2.7	6.21					
07/2013	720 J	90000	210000	160 U	440 J	2800	55	330	950	160 U	290 J	200 U	1020	45.3	238	1.6	6.31					
10/2013	780 J	98000	250000	400 U	760 J	6400	69	560	1000	400 U	500 U	500 U	715	59.1	134	6.4	5.87					
12/2013	850	130000	230000	100 J	700	25000	57	640	1600	210 J	400 J	100 U	578	73.9	49.5	23.5	6.17					
04/2014	150 J	11000	68000	100 U	310	8600	7.9	280	720	100 U	100 U	100 U	179	33.1	11.3	18.3	6.55					
08/2014	55 J	8900	82000	83 J	280	15000	24	3900	7000	82 J	130	50 U	304	13.7	14.7	15.5	6.38					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-14D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	190	7900	12000	16 J	120	240 J	4.2 J	14	57	3300	150	5 U	4.7	885	2.93	0.43	8.02					
08/2011	72	1800	13000	36 J	22 J	64	6.7	5 U	23	2000	80	50 U	826	227	1.37	124	6.15					
11/2011	670	5400	29000	99 J	170	540	76	12	30	3500	340	100 U	2950	40.7 J	1.85	134	5.35					
03/2012	40 J	4700 J	25000 J	39 J	62 J	530 J	38 J	170 J	91 J	560 J	310 J	25 UJ	1740	26.6 J	77.5	50.1	5.54					
06/2012	80 U	19000	57000	80 U	110 J	580	29	140	94	270 J	440 J	100 U	987	55.3 J	55.6	30.3	5.63					
09/2012	85 J	23000	65000	82 J	180 J	800	34	310	160	240 J	480	50 U	826	21.8	52.3	65.4	5.57					
11/2012													556									
12/2012	130 J	14000	74000	72 J	89 J	570	7.8	83	230 J	500	420	50 U	1470	76.9	6.84	79.9	5.9					
04/2013	99 J	2100	95000	80 U	130 J	1100	14	460	1700	740	770	100 U	765	11.7 J	16.6	72.7	5.95					
07/2013	80 U	1000	74000	80 U	80 U	1100	12	300	4400	300 J	730	100 U	838	2.7 J	43	88.6	5.88					
10/2013	80 U	670	75000	80 U	120 J	1500	22	830	7700	1300	1100	100 U	719	1.7 J	73.1	23.7	5.93					
12/2013	80 U	2500	57000	87 J	140 J	9100	37	4100	22000	2100	1300	100 U	600	8.7	38.3	24.5	6.08					
04/2014	86 J	9800	120000	120	210	5600	21	2000	3300	1600	1100	50 U	595	15	6.2	80.4	5.97					
08/2014	5 U	36 J	4200 J	54	6.1 J	2200	62	16000	20000	30	730	5.7 J	788	1.5 U	97.9	3.9	7.37					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-15D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	69	2200	7900	17 J	69	210	3.1 J	9.8	59	2400	100	10 U	3.3 J	823 J	1.32 J	0.25 J						
08/2011	48 J	780	17000	43 J	90 J	370	6.4	6.6	32	4600	530	100 U	563	281	1.08	84.5	5.93					
11/2011	44 J	1900	15000	47 J	140	510	24	9	44	11000	990	100 U	303	56	21	103	6.27	1.6E+03	1.2E+04	1.3E+03	8.0E+01	5.1E+02
03/2012	12 J	760	5100	30	79	5100	54	45	1300	5000	1100	25 U	307	26.4	11.4	15.8	6.23					
06/2012	48	2900	10000	44	320	1500	19	66	900	49000 J	3000	5 U	134	133 J	0.0574 J	127	6.94	3.6E+05	3.3E+04	1.5E+06	8.1E+03	4.4E+04
09/2012	67	2900	14000	50	530	970	12	22	260	58000	3800	2 U	108	106	0.137 J	153	6.94	5.3E+04	7.4E+03	3.7E+05	2.9E+04	1.5E+05
11/2012													2090									
12/2012	18 J	540	19000	33 J	210	550	3.8 J	10	76	7700	1600	20 U	739	44.3	0.15 J	238	6.24	1.7E+01	2.5E+02	1.1E+02	7.9E+01	1.1E+01
04/2013	60 J	3200	14000	27 J	620	370	17	19	270	48000	3100	20 U	421	139	0.85	125	6.34	3.1E+04	3.8E+04	1.6E+04	4.6E+04	7.8E+02
07/2013	22 J	1100	10000	33	480	4100	280	140	1600	16000	7400	17 J	480	3.2 J	40.8	84.6	7.29	1.2E+05	1.6E+05	7.5E+04	3.6E+05	1.0E+02
10/2013	71	1400	2200	59	200	11000	380	210	1100	10000	9200	29 J	319	3.1 J	33.3	0.58	6.22	3.2E+05	1.7E+04	1.1E+06	9.2E+05	2.4E+01
12/2013	140	840	1800	73 J	150	9700	980	260	820	3400	13000	100	223	3.7 J	1.27	124	6.88	6.8E+04	8.7E+04	2.3E+05	2.1E+05	4.4E+02
04/2014	600	5400	7700	25 U	690	720	32	100	1000	42000	3000	25 U	194	46.5	0.114 J	139		4.4E+04	1.5E+04	1.0E+05	1.5E+03	1.8E+03
08/2014	620	5200	9400	50 U	970	2200	76	210	1900	51000	4000	50 U	158	32.9	0.234 J	139	7.13	4.2E+05	1.5E+04	2.1E+06	3.5E+04	4.7E+03

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-15S

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
03/2012																		8.7E+05	7.8E+03	3.3E+06	7.2E+02	1.4E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-16D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	610	41000	24000	40 U	140 J	390	1.4 J	13	53	1800	120 J	50 U	7.1	801	0.661	3.4	7.36					
08/2011	70	5200	2100	7.5 J	4.4 J	13 J	2.8 J	5 U	13 J	15 J	25 U	25 U	33.8	39.4	0.054 J	1.1	12.19					
11/2011	110	9900	5700	14 J	13 J	43 J	7.5	1.2 J	27	59	18 J	50 U	80.5	91.5 J	0.0976 J	7.2	12.65					
03/2012	13	110	110	5 U	5 U	3.3 J	5 U	5 U	15	5 U	5 U	5 U	2.5	30.3	0.2 U	0.16 U	10.48					
06/2012	30	1200	3000	9.8 J	7.1 J	530	3 J	7.1	57	39	17 J	5 U	20.9	44.4 J	0.244	2.6	11.59					
09/2012	16	240	220	0.81 J	0.8 U	56	1 U	1 U	10 J	4.8 J	1.2 J	1 U	7.3	27.4 J	0.0333 U	0.28	11.14					
12/2012	130 J	5500	67000	47 J	56 J	470	5.6	45	330 J	770	430	50 U	728	219	0.107 J	182	6.14					
04/2013	160 J	5300	47000	41 J	92 J	1500	11	730	1500	1500	950	50 U	370	28.7	0.988	103	6.29					
07/2013	330 J	12000	64000	80 U	220 J	1000	6.8	170	940	8900	2000	100 U	294	16.5	0.111 J	172	6.34					
10/2013	380	12000	40000	42 J	300	640	5.7	59	290	18000	2000	50 U	183	91.1	0.043 U	191	6.16					
12/2013	430	15000	52000	60 J	320	810	9.9	140	700	15000	1900	20 U	214	32.7	0.043 U	182	6.27					
04/2014	290	23000	87000	88 J	260	2700	15	490	1800	4300	830	50 U	262	17.4	0.822	104	6.48					
08/2014	520	35000	170000	170 J	400	6100	22	810	3200	6300	1200	100 U	347	19.7	0.216 J	132	6.55					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: PMW-17D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	330	18000	15000	16 U	80 J	210	1.6 J	11	50	1600	100	20 U	3.7 J	775 J	0.445	1.3	6.25					
08/2011	40 J	780	18000	34 J	110	100	3.4 J	2.2 J	27	7300	130	50 U	193	551 J	0.657	96.9	5.24					
11/2011	42 J	890	16000	39 J	66 J	130	19	6	53	6900	240	100 U	501	193	9.03	96.9	6.21	2.7E+02	1.9E+03	6.4E+02	3.4E+02	1.8E+02
03/2012	11 J	720	13000	37 J	26 J	120	28	7.5	75	450	330	50 U	335	62.7	22.9	35.4		7.6E+00	2.5E+02	2.8E+01	7.4E+01	2.9E+00
06/2012	190	11000	13000	26	63	140	11	4.7 J	79	3900 J	610	5 U	94.5	201	0.216	157	6.55	7.8E+02	1.6E+03	2.6E+03	2.6E+02	1.6E+03
09/2012	200	6400	6700	17	65	190	9.8	7.6	380	3000	420	1 U	43.8	210	0.0686 J	137	6.89	6.5E+02	2.8E+02	5.3E+03	2.5E+02	2.8E+03
12/2012	97 J	5100	23000	23 J	54 J	280	5.6	6	120	1300	520	20 U	547	21.2	0.178 J	235	6.22	1.5E+01	3.8E+01	4.4E+02	2.7E+02	8.0E+00
04/2013	22 J	370	10000	16 J	93	360	9.1	10	6400	5600	860	10 U	230	21 J	2.43	47.3	6.35	3.4E+04	2.4E+03	1.3E+04	6.8E+04	2.8E+01
07/2013	65	1500	15000	30 J	380	790	12	140	1300	29000	2300	10 U	181	40.4	0.043 U	71	7.86	4.9E+04	4.9E+02	9.3E+04	1.8E+05	2.3E+03
10/2013	5.1	30	100	5.6	6	510	23	40	3900	470	160	1 U	57.5	3.5 J	0.0954 J	212	7.46	2.5E+04	1.7E+03	5.3E+04	8.8E+04	7.7E+02
12/2013	78	1100	10000	26 J	180	370	12	35	600	15000	1500	10 U	103	49.1	0.043 U	200	6.86	4.5E+04	7.4E+02	8.1E+04	4.4E+04	1.4E+03
04/2014	33	830	9500	14 J	140	650	26	39	820	5400	1100	10 U	124	5.2	0.239 J	66.3	6.99	2.4E+04	1.9E+03	3.0E+04	2.0E+03	4.5E+03
08/2014	2.5	92	310	0.64 J	3.3	75	17	15	740	29	72	1	67.5	8.8	0.0558 J	105	8.05	4.6E+05	5.5E+03	3.0E+06	2.8E+04	3.2E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: RMW- 1D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.98 J	0.8 U	0.8 U	1 U	19	1 U	73	0.8 U	1 U		2.5	738 J	0.46							
06/2009	5.0 U	3.2 J	7.4	5.0 U	5.0 U	0.86 J	15	1.0 U	63	5.0 U	5.0 U	5.0 U	3.3	758	0.660	1.69						
07/2010	0.8 U	1 U	0.96 J	0.8 U	0.8 U	1 U	49	1 U	160	0.8 U	1 U	1 U	2.6	1070	0.332	13.3						
09/2011	3.8 J	100	290	1.3 J	5.2	8.8	15	5 U	65	270	6.4	5 U	3.2	1070 J	0.316	8.2						
03/2012	3.4 J	69	340	1.4 J	7.2	2.9 J	11	5 U	49	390	8.2	5 U	2	1560	0.263	4.5						
06/2012	2.2 J	24	380	1.4 J	6.1	5.8	12	1 U	54	500 J	9.4	1 U	1.9	934	0.273	5.2						
09/2012	0.8 U	4.9 J	300	1 J	4.8 J	2.9 J	16	1 U	61	290	6.2	1 U	1.4	867	0.27	6.3						
12/2012	5.6	61	370	1.3 J	8.1	4 J	3.2 J	1 U	26	850	11	1 UJ	2.4	601	0.264	0.44						
04/2013	1.3 J	10	330	1 J	6.5	5.5	14	1 U	58	440	8.3	1 U	1.7	759	0.21	4.4						
07/2013	0.8 U	6.5	290	0.95 J	3.4 J	7	14	1 U	63	280 J	7	1 U	1.9	844	0.246	6.4						
10/2013	0.8 U	12	280	0.98 J	4.3 J	7.6	17	1 U	76	270	6.4	1 U	1.6	780	0.26 J	7.6						
12/2013	0.8 U	11	270	1 J	3.4 J	5.7	12	1 U	64	230	6.8	1 U	2.6 J	716	0.299 J	4.7						
04/2014	5.1	57	420	1.5	21	14	6.7	1 U	39	460	13	0.5 U	3.1	720	0.303 J	1.7	7.17					
08/2014	2.2	15	450	1.6	6.9	14	15	1 U	72	210	9.7	0.5 U	4	819	0.403	5.2	7.63					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: RMW- 2D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	1100	140000	21000	80 U	110 J	1500	22	86	160	300 J	100 J		6	1120	0.182 J							
06/2009	1600 J	180000	49000	5000 U	5000 U	2000 U	83	12	390	5000 U	5000 U	5000 U	29.7	1190	0.0416 J	53.8						
07/2010	780	99000	52000	80 U	110 J	200 J	89	5.1	340	80 U	100 U	100 U	15.1	1480 J	0.0522 U	51.7						
06/2011	920 J	210000	36000	160 U	160 J	310 J	11	8.2	63	1200	200 U	200 U	12.1	969 J	0.269	4.8	6.26					
08/2011	680 J	56000	110000	1000 U	430 J	1000 U	28	5.3	89	1100	1000 U	1000 U	377	759 J	0.162 J	58.4						
11/2011	1100	110000	110000	85 J	390 J	110 J	32 J	3.3 J	120 J	600	500 U	500 U	267	466	0.0368 J	125	6.78	2.0E+02	3.1E+04	1.1E+03	1.1E+03	1.5E+03
03/2012	1300	140000	78000	500 U	230 J	500 U	60	5.1	210	320 J	100 J	500 U	129	813 J	0.0518 J	138	6.78	1.1E+03	4.9E+03	2.1E+03	2.5E+02	1.9E+02
06/2012	800	69000	16000	24 J	68 J	52 J	18	1.2 J	80	860 J	66 J	20 U	43.2	485	0.0141 U	94.9	6.82	6.1E+02	3.4E+03	1.6E+03	1.9E+01	9.8E+01
09/2012	1100	130000	39000	80 U	130 J	200 J	23	4.3 J	250	480 J	110 J	100 U	128	264 J	0.0333 U	141	6.7	3.5E+03	1.4E+03	3.2E+03	6.3E+01	1.7E+03
12/2012	3200	410000	62000	40 U	99 J	240 J	28	12	160	160 J	84 J	50 U	1620	395	39.5	27.2	6.25	6.8E+02	9.5E+02	7.2E+05	9.2E+05	5.4E+04
04/2013	1500	300000	150000	80 U	210 J	450 J	35	54	250	210 J	160 J	100 U	1170	266	58.2	6.8	6.46	1.1E+04	2.7E+03	8.6E+04	7.6E+04	4.6E+02
07/2013	1200 J	240000	170000	800 U	800 U	1000 U	23	240	290	800 U	1000 U	1000 U	758	217	46	6.2	6.4	2.4E+03	5.9E+02	4.5E+03	2.3E+03	1.8E+01
10/2013	1200 J	290000	250000	400 U	500 J	860 J	31	230	330	400 U	500 U	500 U	578	317	26.8	14.2	5.96	1.6E+04	8.3E+03	4.2E+04	3.5E+04	2.2E+03
12/2013	1500 J	320000	260000	400 U	610 J	1200 J	34	200	470	400 U	500 U	500 U	508 J	177	16.3	25.9	6.32	2.4E+04	5.3E+03	3.5E+05	9.8E+04	1.5E+04
04/2014	1200	200000	260000	250 U	510	520	44	130	320	250 U	250 U	250 U	464	249	8.16	40.2	6.38	2.3E+04	4.2E+02	3.3E+04	6.0E+02	6.1E+03
08/2014	1500	310000	310000	250 U	610	1600	36	440	860	250 U	250 U	250 U	410	221	5.86	35.7	5.95	3.8E+05	4.5E+03	2.0E+06	1.0E+04	7.2E+04

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: RMW- 3D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	13 U	3.2 J	300	13 U	3.2 J	21	1.0 U	1.1	12	110	8.0 J	13 U	3.3	802	0.485	1.0 U						
07/2010	0.8 U	3.9 J	760	2.2 J	11	70 J	1 U	3 J	27	280	15	1 U	3	882	0.474	0.46						
06/2011	770 J	14000	1900	160 U	1200	200 U	2.7 J	1.1 J	19	96000	700 J	200 U	3.1	781	0.414	0.49	7.37					
08/2011	1400	14000	14000	73 J	1100	250 U	9.2	1.7 J	33	64000	620	250 U	10500	529	0.866	21.4	6.1					
11/2011	130 J	1500	9300	500 U	570	500 U	4 J	5 U	25	53000	340 J	500 U	7.4	614	0.0541 J		6.97					
03/2012	90 J	620	5900	250 U	260	250 U	4.7 J	5 U	26	33000	190 J	250 U	8.6	710	0.0326 J	36.4	6.88					
06/2012	100	460	3800	16 U	210	20 U	5.7	1 U	27	25000	130	20 U	9	978	0.0697 J	15.2	6.96					
09/2012	45 J	170	3100	16 U	160	27 J	3.6 J	1 UJ	22 J	18000	130	20 U	8.2	552 J	0.0954 J	19.4	7.09					
12/2012	39 J	200	4100	12 J	790	14 J	3.5 J	1 U	21	19000	150	10 U	23.6	435	0.063 J	48.6	6.91					
04/2013	19	99	3500	20	810	51	2.6 J	3.4 J	41	17000	210	2 U	21.2	471	0.0333 U	63	7.46					
07/2013	9.7 J	42 J	2800	12 J	750	61	2.4 J	2.8 J	38	17000	160	10 U	3.8	574	0.043 U	30	6.99					
10/2013	11 J	32 J	2600	8.1 J	140	59	1 J	3.9 J	36	10000	150	10 U	21.1	462	0.0701 J	22.7	6.97					
12/2013	16 U	45 J	1600	16 U	71 J	33 J	14	1.5 J	70	7000	96 J	20 U	5.8	590 J	0.0701 J	22.3	7.1					
04/2014	8.7	49	1800	5.3	190	45	1 U	2.9 J	43	8000	120	2.5 U	8.6	461	0.0485 J	11.8	7.21					
08/2014	6.3 J	39	2100	6.8 J	86	71	3.3 J	3.8 J	60	9100	180	5 U	3.9	637	0.0382 J	21.5	7.34					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: RMW- 4D

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	570 J	130000	18000	5000 U	5000 U	430 J	19	14	110	5000 U	5000 U	5000 U	7.67	1340								
05/2008	600	67000	21000	80 U	80 U	610	16	12	95	80 U	100 U		4.9	1370 J	0.351							
07/2008	5000 UJ	450 J	100000 J	5000 UJ	5000 UJ	1100 J	15 J	46 J	110 J	5000 UJ	5000 UJ	5000 UJ	387 J	1060 J								
09/2008	1300 UJ	3700 J	38000 J	370 J	75 J	680 J	23	7.1	130	1300 UJ	1300 UJ	1300 UJ	294	810								
12/2008	250 U	660	5400	28 J	250 U	79 J	28	2.1	130	250 U	250 U	250 U	168	130								
06/2009	9.4 J	620	2800	12 J	100 U	95	32	7.0	510	12 J	100 U	100 U	160	572	0.0723 J	247						
10/2009	11 J	1100	3800	10 J	8.4 J	74	35	7.6	210	8.4 J	8.0 J	100 U	149	569	0.0317 U							
07/2010	6.1	380	900	6.9	2.8 J	73	36	160	3800	5.5	5.1	1 U	140	803	0.0522 U	189						
06/2011	130 J	54000	32000	81 J	89 J	880	19	52	1900	40 U	50 U	50 U	133	843	0.0141 U	173	7.41					
08/2011	50 J	26000	19000	42 J	42 J	470	39	97	4800	100 U	25 J	100 U	124	395 J	0.0153 J	172	7.11					
11/2011	68 J	20000	17000	36 J	38 J	510	39 J	230 J	3900	100 U	23 J	100 U	109	342 J	0.0208 J	157	7.29					
03/2012	50 U	800	1700	50 U	50 U	300	12	210	8800	50 U	50 U	50 U	80.1	94.9 J	0.0271 J	176	7.12					
06/2012	87 J	18000	24000	40 J	59 J	830	19	400	5600	180	49 J	25 U	55.9	241 J	0.0333 U	192	6.96					
09/2012	82	11000	18000	33 J	51	1000	21	350	6000	96	45 J	10 U	82.8	111 J	0.0333 U	209	6.7					
12/2012	50 J	4300	48000	55 J	32 J	950	22	360	5500	72 J	94 J	20 UJ	754	496	0.0681 J	247	5.85					
04/2013	19 J	2100	31000	57 J	38 J	1300	24	420	6500	22 J	66 J	20 U	197	1090	0.0333 U	209	6.62					
07/2013	40 U	3200	31000	62 J	40 U	1400	34	390	6500	40 U	71 J	50 U	368	51.7	0.043 U	241	6.85					
10/2013	80 U	8500	55000	97 J	80 U	1400	33	300	2800	80 U	100 U	100 U	390	189	0.043 U	276	6.46					
12/2013	20 J	2500	61000	87 J	75 J	1400	36	390	4100	21 J	120	20 U	208	313	0.043 U	250	6.73					
04/2014	25 U	2500	67000	100	91	1800	25	560	9600	25 U	88	25 U	294	17	0.283 J	198	6.51					
08/2014	50 U	1500	57000	93 J	80 J	3500	38	740	10000	50 U	70 J	50 U	226	131	0.0512 J	154	6.77					

June 2008: Completion of Pilot Test Injections
 April 2011: Completion of Bioreactor Trenches construction
 July 2011: Remediation Injections completed
 November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: RMW- 4D PUMP

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	250 U	1300	4900	16 J	250 U	110	27	19 J	270	250 U	250 U	250 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: RMW- 4D SNAP

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2- DCE (ug/L)	Trans- 1,2- DCE	1,1- DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1- Trichloro ethane (ug/L)	1,1- Dichloro- ethane (ug/L)	Chloro ethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	250 U	1200	5200	16 J	250 U	82 J	31 J	9.7 J	240 J	250 U	250 U	250 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well ID: INJ-07D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/5/2011	4.31	-179	1.8	0.171	226	323
8/20/2011	2.46	-466	--	0.527	--	48
11/2/2011	1.67	-349	0	0.366	522	25
3/21/2012	3.61	-359	0.3	0.383	294	38
6/28/2012	1.66	-363	0	0.284	306	42
9/19/2012	1.8	-351	0.4	0.182	372	6
12/6/2012	2.66	-268	1.5	1.03	268	572
4/3/2013	5.29	-133	2.2	1.39	138	84
7/10/2013	3.998	-20	1.8	0	428	420
10/10/2013	3.1	-226	4	1.05	1080	600
12/5/2013	2.295	-34	0	0	0	0
4/10/2014	2.72	-7	0.8	0.821	392	340
8/12/2014	2.33	-160	3	0	520	530

Well ID: INJ-08D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	2.24	-168	3.9	0.243	210	272
8/30/2011	2.16	-319	0.4	0.547	4.7	527
11/4/2011	2.01	-369	0	0.372	0	2.5
3/23/2012	1.69	-374	1	0.209	160	45
6/25/2012	0.791	-242	2.8	0.431	202	12
9/19/2012	1.54	-381	0.4	0.185	248	7
12/7/2012	0.784	-260	1.3	0.844	214	22
4/10/2013	1.79	-155	#N/A	0.761	#N/A	#N/A
7/12/2013	2.937	-8	#N/A	1.29	#N/A	--
10/11/2013	2.95	-358	0	0.892	0	--
12/9/2013	2.69	-110	--	--	--	--
#N/A	#N/A	#N/A	--	0.622	--	--
8/21/2014	2.72	-248	--	--	--	--

EKONOL FACILITY

Well ID: INJ-09D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/5/2011	3.53	-203	1.6	0.204	220	331.5
8/30/2011	1.5	-371	#N/A	0.466	#N/A	
11/3/2011	0.751	-227	#N/A	1.39	#N/A	#N/A
3/27/2012	0.466	-207	0.2	0.308	474	225
6/22/2012	0.25	-247	0.4	0.13	350	48
9/19/2012	0.106	-242	0.2	0.0818	316	32
12/5/2012	2.95	-242	#N/A	1.1	#N/A	#N/A
4/3/2013	3.9	-398	#N/A	1.22	#N/A	#N/A
7/11/2013	3.33	-323	#N/A	1.46	#N/A	--
10/10/2013	3.55	-432	0	1.3	--	--
12/5/2013	1.68	-357	0	0	--	--
4/10/2014	1.493	-81	0	0.874	0	--
8/13/2014	1.64	-294	0	0	0	0

Well ID: INJ-10D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	3.25	-191	1.1	0	270	36
8/29/2011	1.75	-347	1	0	220	34
11/1/2011	1.19	-343	0	0	276	17
3/29/2012	3.57	-261	0.5	0	118	225
6/28/2012	1.8	-352	0.1	0.175	256	32
9/20/2012	0.106	-242	0.2	0.7	316	32
12/5/2012	1.54	-353	0.3	0.146	404	748
4/4/2013	14.42	-355	0	0.827	#N/A	#N/A
7/15/2013	5.22	-390	#N/A	0.774	#N/A	#N/A
10/16/2013	1.916	-196	0	0.4	0	#N/A
12/5/2013	1.72	-397	0.1	0	830	860
4/15/2014	0.886	-216	0.4	0.0085	38	60
8/12/2014	2.15	-340	--	--	--	0

EKONOL FACILITY

Well ID: INJ-11D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/21/2012	2.26	-334	0.5	0.218	278	360
9/25/2012	2.04	-337	0.1	0.18	174	280
12/12/2012	3.4	-362	#N/A	0.675	#N/A	#N/A
4/5/2013	2.86	-373	0	0.326	436	1238
7/12/2013	3.861	-270	0.5	0	698	560
10/8/2013	1.625	-241	0	0.369	0	0
12/10/2013	2.303	-275	0	0	0	0
4/11/2014	0.681	-300	0	0.195	280	320
8/13/2014	2.31	-347	--	--	--	0

Well ID: INJ-12D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
3/29/2012	1.92	-347	0.4	0.33	212	#N/A
6/28/2012	1.79	-345	0.1	0.325	402	64
9/26/2012	0.16	-245	0.5	0.0415	322	32
12/13/2012	3.83	-377	#N/A	0.82	#N/A	#N/A
4/5/2013	4.09	-455	#N/A	0.845	#N/A	#N/A
7/15/2013	3.44	-480	#N/A	0.842	#N/A	#N/A
10/11/2013	4.077	-229	0	1.21	0	0
12/9/2013	1.84	-454	0	0	0	0
4/16/2014	#N/A	#N/A	#N/A	0.227	#N/A	#N/A
8/14/2014	0.122	-142	2.6	0	100	120

EKONOL FACILITY

Well ID: INJ-13D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
#N/A	#N/A	#N/A	#N/A	0.199	#N/A	#N/A
6/26/2012	1.72	-352	0.4	0.225	324	48
9/24/2012	1.97	-356	0.1	0.165	336	44
12/13/2012	3.28	-326	#N/A	0.755	#N/A	#N/A
4/5/2013	4.08	-343	0.6	0.661	220	187
7/15/2013	3.41	-431	#N/A	0.613	#N/A	#N/A
10/8/2013	4.113	-223	0	0.633	--	0
12/10/2013	1.888	-306	0	0	--	0
4/10/2014	2.5	-314	0	0.31	380	520
8/14/2014	3.57	-342	--	--	400	460

Well ID: MW-1S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/21/2011	4.23	-83	2	0	204	36
8/26/2011	3.62	-166	2	0.1	1192	238
11/7/2011	3.68	-178	1.4	0	> 5000	16
3/20/2012	3.81	30	0.6	0.1	216	28
6/28/2012	3.17	-110	1.5	0.387	140	24
9/18/2012	3.31	-123	1.4	0.1	220	3
12/12/2012	3.37	-59	1.2	0.348	172	42
4/2/2013	3.51	25	0.8	0.257	104	46
7/16/2013	3.05	-89	1	0	190	240
10/16/2013	#N/A	#N/A	0	0.444	184	200
12/3/2013	0	0	0.1	0	101	140
4/14/2014	2.48	15	0	0.403	148	240
8/15/2014	0.748	-226	1.8	0	78	200

EKONOL FACILITY

Well ID: MW-2S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	8.89	-84	3.2	0.3	240	36
8/25/2011	3.34	-42	2.8	0.4	286	374
11/2/2011	2.55	-218	2.2	0	210	19
3/21/2012	4.89	-187	1.8	0.5	236	473
6/28/2012	4.41	-61	4.4	2.04	244	42
9/19/2012	4.61	-54	1.2	0.1	382	46
12/5/2012	5.34	-70	3	2.11	536	6
4/3/2013	5.07	73	0.8	1.94	160	78
7/11/2013	5.3	24	2	0	308	420
10/15/2013	4.87	-5	3.9	2.23	416	600
#N/A	#N/A	#N/A	#N/A	0.518	#N/A	572
4/14/2014	11.1	-232	1.2	1.22	260	840
8/18/2014	4.56	-56	3.6	0	254	440

Well ID: MW-3S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	5.95	-10	0.9	0	430	544
8/27/2011	5.98	-10	1.4	0.2	520	425
11/9/2011	5.99	-95	1	0.2	216	45
3/20/2012	3.78	33	0.4	0	90	14
6/28/2012	2.18	-126	1.3	0.138	158	2
9/27/2012	5.06	-252	0.2	0	168	26
12/12/2012	5.52	-75	1.9	0.225	190	58
4/10/2013	#N/A	#N/A	0	0.139	118	12
7/17/2013	13.4	-120	#N/A	0.299	#N/A	#N/A
10/10/2013	#N/A	#N/A	0	0.301	128	#N/A
12/3/2013	0	0	0.1	0	114.4	220
4/11/2014	5.491	-27	0	0.04	86	100
8/19/2014	--	--	0	0	140	200

EKONOL FACILITY

Well ID: MW-4S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/23/2011	6.94	-211	0	0	560	714
8/23/2011	6.59	-306	1.4	0	332	476
11/8/2011	5.84	-313	0.6	0	420	36
3/20/2012	6.31	-240	0.6	0	236	495
6/28/2012	6.07	-260	1.5	0.834	564	5
9/25/2012	5.35	-282	0.3	0.1	316	46
12/12/2012	4.65	-174	0.8	0.549	490	46
4/10/2013	4.69	-320	0.2	0.722	278	54
7/18/2013	5.14	-287	0.4	0	420	520
10/17/2013	4.82	-305	0	0.539	386	560
12/12/2013	5.738	-292	0.4	0	448	500
4/14/2014	6.16	-270	0.8	0.752	488	540
8/22/2014			0.6	0	424	526

Well ID: MW-5S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/30/2011	1.84	-184	1	0	110	255
3/28/2012	--	--	#N/A	0.184	#N/A	#N/A
6/28/2012	2.52	-70	1	0.179	196	3
9/26/2012	2.2	-202	0.8	0	226	28
12/11/2012	2.54	-128	1	0.155	196	54
4/2/2013	2.88	-139	0.4	0.161	82	46
7/16/2013	2.37	-53	0.8	0	142	300
10/8/2013	2.623	-133	0.5	0.166	230	200
12/3/2013	2.348	-106	0.5	0	244	240
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

EKONOL FACILITY

Well ID: MW-6S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	6.68	39	0	0	80	221
8/24/2011	5.64	38	0	0	216	391
11/1/2011	5.45	-194	0	0	280	29
3/23/2012			0.2	0.1	224	3
6/28/2012	4.24	33	1	0.2	250	36
9/26/2012	5.19	-84	1.1	0	202	34
12/11/2012	3.09	-166	0.2	0	200	46
4/11/2013	0.862	-101	0	0	54	4
7/19/2013	5.76	66	0	0.7	290	360
10/17/2013	5.88	-3	0.9	0	606	440
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
4/16/2014	9.47	-3	0	0	220	280
8/21/2014	--	--	--	--	--	0

Well ID: MW-7S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/31/2011	6.25	-93	1	0	230	629
3/20/2012	8.03	-131	0	0.42	268	215
6/28/2012	6.83	16	1.3	0.406	298	28
9/18/2012	7.25	40	1.6	0	340	54
12/12/2012	8.08	90	0.5	0.312	426	66
4/10/2013	#N/A	#N/A	0	0.325	216	28
7/17/2013	#N/A	#N/A	0.8	0	244	320
10/17/2013	7.665	-95	0	0.405	196	240
12/3/2013	--	--	0	0	259	400
4/10/2014	--	--	0	0.404	390	340
8/21/2014	--	--	0	0	360	300

EKONOL FACILITY

Well ID: MW-8S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
9/2/2011	2.03	2	0	0	0.7	51
3/29/2012	9.29	23	0	0	76	292.5
6/28/2012	6.01	67	0.8	0.359	378	62
9/19/2012	6.41	120	0.4	0	438	58
12/12/2012	6.08	-109	0	0.367	138	68
4/10/2013	#N/A	#N/A	0	0.394	264	34
#N/A	#N/A	#N/A	0.6	0	282	500
10/9/2013	3.406	-89	0.1	0.161	346	160
12/10/2013	7.366	101	0.4	0	134	180
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Well ID: MW-9S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/21/2011	4.19	-72	1.6	0.7	300	51
3/28/2012	5.02	-97	1.2	0.2	250	46
3/29/2012	9.29	23	0	0	76	292.5
6/28/2012	4.41	-89	1.3	0.473	370	46
9/26/2012	4.56	46	0.2	0.2	490	46
12/12/2012	3.48	6	0.8	0.398	282	62
4/2/2013	5.38	-322	0.6	0.428	662	82
7/19/2013	5.13	-283	1	0.2	500	300
10/17/2013	1.746	-177	0.1	0.288	144	160
12/11/2013	3.069	-21	0.5	0	92	220
4/17/2014	2.43	-310	0	0.314	240	320
8/19/2014	3.92	-269	0.8	0.4	580	480

EKONOL FACILITY

Well ID: MW-10S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/21/2011	2.59	-337	0	0.3	730	595
8/24/2011	2.75	-344	0	0	858	816
11/2/2011	2.02	-356	0	0	620	6
3/28/2012	2.99	-368	0	0	110	247.5
6/28/2012	2.72	-342	0.4	0	602	74
9/25/2012	2	-322	0	0	204	36
12/10/2012	2.08	-227	1.2	0.15	178	6
4/5/2013	2.119	-112	1.3	0	114	85
7/12/2013	2.07	-24	1.9	0	274	272
10/15/2013	1.35	-147	2	0	230	527
12/3/2013	1.71	-179	2.2	0	174	2.5
4/17/2014	1.27	-161	2.6	0	202	405
8/18/2014	1.55	-168	2.2	0	200	240

Well ID: MW-11S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/23/2011	5.77	-57	2.6	0	320	391
8/24/2011	5.34	-242	1.4	0	200	36
11/2/2011	4.23	-334	0.8	0	820	31
3/22/2012	5.33	-303	1.8	0	148	158
6/28/2012	4.67	-240	1.2	0	266	44
9/26/2012	5.01	-145	0.5	0	246	3
12/10/2012	2.56	99	0.15	0	112	46
4/12/2013	4.53	-49	1	0.4	218	28
7/18/2013	4.03	-205	0.9	0.3	180	405
10/17/2013	4.77	-249	0.8	0	168	120
12/3/2013	4.65	-195	0.7	0	175.8	700
4/17/2014	4.29	-182	0.9	0	260	220
8/21/2014	4.3	-175	0.6	0	138	320

EKONOL FACILITY

Well ID: MW-12S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	5.29	-132	0.6	0	338	323
8/25/2011	4.52	-326	1.6	0	660	391
11/2/2011	4.03	-286	0.8	0.2	364	23
3/28/2012	8.32	-287	0.6	0	246	36
6/28/2012	6.57	-255	3.5	0	438	36
9/26/2012	4.51	-312	0	0.1	322	36
12/10/2012	1.28	-124	0.8	0	188	64
4/11/2013	8.27	-187	1.8	0	136	38
7/18/2013	6.13	-291	0	0.2	400	560
10/17/2013	4.299	-172	0.1	0	316	220
12/13/2013	5.73	-259	0.8	0	284	360
4/17/2014	7.41	-216	1	0.1	316	360
8/19/2014	5.29	-304	0.1	0.1	432	540

Well ID: RMW-2D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	4.03	-288	0.8	0	166	255
8/23/2011	3.33	-328	0.4	0	560	459
11/2/2011	2.58	-371	0	0	420	32
3/21/2012	3.52	-351	0.4	0	206	45
6/28/2012	1.72	-322	0.1	0.219	268	46
9/19/2012	1.84	-369	0	0	486	76
12/4/2012	3.74	-327	#N/A	1.08	#N/A	#N/A
4/4/2013	4.66	-429	#N/A	1.59	#N/A	#N/A
7/15/2013	3.39	-376	#N/A	1.31	#N/A	#N/A
10/15/2013	3.49	-379	0	1.08	0	--
12/3/2013	3	-403	--	--	--	--
4/15/2014	3.1	-386	--	--	--	--
8/14/2014	2.67	-353	--	--	--	0

EKONOL FACILITY

Well ID: RMW-3D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	2.1	-293	0.8	0.203	180	272
8/24/2011	2.48	-276	#N/A	0.386	#N/A	--
11/9/2011	1.64	-350	0.2	0.168	164	2
3/28/2012	2.32	-340	0	0.17	178	337
6/26/2012	1.76	-318	0.3	0.187	212	--
9/25/2012	1.5	-381	0.2	0.154	210	34
12/6/2012	1.57	-301	0.5	0.16	222	66
4/8/2013	1.86	-375	0	0.165	268	48
7/19/2013	1.74	-316	0	0	160	400
10/11/2013	1.67	-345	0	0.178	130	320
12/4/2013	1.94	-344	0.1	0	72	280
4/14/2014	3.43	-301	0.4	0.135	160	260
8/21/2014	1.77	-344	0.2	0	218	340

Well ID: RMW-4D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/24/2011	3.94	-353	0	0	740	82
8/23/2011	2.52	-365	0	0	500	86
11/8/2011	2.01	-381	0	0	400	6
3/20/2012	4.73	-362	0	0	208	428
6/28/2012	2.28	-382	0.2	0.123	432	74
9/25/2012	1.98	-377	0.2	0	540	78
12/10/2012	3.36	-343	0.4	0.501	832	14
4/10/2013	5.01	-349	0	0.555	630	72
7/12/2013	3.4	-352	0	3	952	1000
10/14/2013	3.47	-358	0	0.296	1300	1100
12/12/2013	2.71	-350	0	0	810	#N/A
4/9/2014	8.57	-311	0	0.461	670	0
8/21/2014	2.78	-338	0	0	510	580

EKONOL FACILITY

Well ID: MW-7D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/23/2011	3.66	-369	0	NA	815	92
8/24/2011	2.67	-349	0.2	0	574	112
11/8/2011	1.3	-219	0	0	640	67
3/20/2012	2.27	-310	0.2	0.1	128	9
6/28/2012	1.72	-293	0	0.407	514	12
9/18/2012	1.86	-394	0	0	334	88
12/7/2012	2.76	-281	0.4	0.921	650	1
4/9/2013	2.27	-290	0	0.608	472	68
7/17/2013	3.05	-359	0	0	726	1000
10/16/2013	2.66	-389	0	0.367	1000	900
12/13/2013	2.02	-367	0	0	670	880
4/8/2014	4.52	-323	0	0.682	660	1100
8/18/2014	3.03	-363	0	0	562	860

Well ID: MW-10D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/21/2011	1.66	-312	0	0	158	272
3/29/2012	3.57	-261	0.5	0	118	225
6/28/2012	1.72	-277	0	0.134	192	25
9/27/2012	2.01	-338	0	0	140	24
12/13/2012	1.63	-308	0.6	0.125	124	4
4/2/2013	3.159	-343	0.1	0.104	86	32
7/18/2013	1.76	-281	0	0	150	300
10/11/2013	1.78	-297	0	0.134	130	260
12/11/2013	2.056	-57	0.3	0	94	180
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

EKONOL FACILITY

Well ID: MW-11D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	2.67	-208	0.4	0	295	36
8/24/2011	3.1	-353	0	0	196	36
11/1/2011	2.48	-333	0	0	280	17
3/26/2012	2.91	-273	0.3	0	216	26
6/28/2012	2.68	-322	0.4	0	176	28
9/26/2012	2.09	-308	0.2	0	150	24
12/7/2012	2.31	-236	0.4	0	210	46
4/9/2013	1.95	-211	0	0	92	12
7/11/2013	1.97	-286	0	0	120	300
10/16/2013	1.86	-287	0	0	220	240
12/3/2013	2.07	-317	0	0	168	240
4/15/2014	2.18	-252	0	0	112	220
8/14/2014	1.95	-295	0	0	178	260

Well ID: MW-12D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
9/1/2011	2.8	-235	0	0	147.6	289
3/28/2012	3.31	-319	0.2	0	130	225
6/28/2012	2.84	-321	0.2	0.0199	122	22
9/27/2012	2.62	-401	0	0	270	34
12/13/2012	2.55	-309	0.2	0.0444	156	4
4/2/2013	3.07	-340	0	0.0226	160	42
7/15/2013	2.63	-314	1	0	150	300
10/14/2013	2.739	-225	0.1	0.0221	208	240
12/10/2013	2.942	-316	0	0	194	180
4/8/2014	2.038	-105	0.2	0.21	196	320
8/19/2014	2.75	-338	0	0.3	208	300

EKONOL FACILITY

Well ID: MW-13D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/30/2011	2.54	-248	0.4	0	194	36
3/29/2012	3.25	-319	0.1	0	158	225
6/28/2012	2.69	-301	0.5	0.3	288	32
9/26/2012	2.87	-290	0.4	0	174	28
12/12/2012	2.85	-218	0.4	0.081	186	44
4/2/2013	2.638	-324	0.1	0.0202	132	44
7/12/2013	3.23	-292	1	0	142	340
10/17/2013	3.45	-303	0.2	0.0953	400	245
12/10/2013	1.93	-274	0	0	210	260
4/11/2014	2.59	-266	0	0.0369	280	360
8/15/2014	2.94	-302				0

Well ID: MW-14D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
9/1/2011	2.21	-280	0.2	0	176	229.5
3/26/2012	2.59	-312	0	0	150	16
6/28/2012	2.2	-331	0.4	0.234	228	24
9/27/2012	1.94	-296	0	0	206	3
12/13/2012	1.87	-277	0	0.195	156	46
4/8/2013	2.19	-200	0	0.224	234	28
7/12/2013	2.4	-274	0.4	0	122	280
10/9/2013	1.93	-247	0	0.244	120	280
12/6/2013	2.34	-265	0	0	290	400
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

EKONOL FACILITY

Well ID: MW-15D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/31/2011	1.59	-253	0.4	0.159	142	187
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3/29/2012	1.49	-189	0.3	0.0887	92	135
6/19/2012	0.953	-140	0.6	0.0951	96	16
9/26/2012	1.73	-260	0.4	0.122	122	24
12/3/2012	1.19	-150	0	0.103	140	22
4/2/2013	1.15	-108	0.4	0.0879	60	26
7/9/2013	1.34	-86	0.2	0	88	180
10/9/2013	2.41	-301	0	0.111	260	200
12/4/2013	1.69	-319	0	0	188	300
4/8/2014	3.36	-248	0	0.121	108	240
8/18/2014	1.41	-196	0.2	0	78	160

Well ID: MW-16D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/31/2011	2.15	-296	0.6	0.0885	166	36
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3/26/2012	2.65	-280	0.6	0.0672	236	3
6/22/2012	2.17	-301	0.6	0.0644	256	3
9/26/2012	2.37	-258	0	0.0786	260	34
12/11/2012	2.55	-316	0.6	0.0682	112	48
4/2/2013	2.335	-289	0.2	0.0625	154	42
7/12/2013	2.81	-289	0.4	0	136	280
10/16/2013	2.719	-174	0.1	0.0629	126	220
12/10/2013	2.63	-289	0	0	180	260
4/15/2014	2.68	9.19	0	0.0597	310	340
8/15/2014	2.33	-294	--	--	--	--

EKONOL FACILITY

Well ID: MW-17D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	7.44	-275	0	0	295	#N/A
8/24/2011	2.26	-335	0.3	0.1	224	36
11/2/2011	1.68	-313	0.1	0	140	289
3/22/2012	3.11	-262	0.3	0	92	17
3/22/2012	3.11	-262	0.3	0	92	23
6/28/2012	2.59	-289	0	0	168	3
9/26/2012	1.9	-282	0	0	100	2
12/10/2012	2.39	-152	2.4	0	186	66
4/2/2013	2.84	-173	0	0	142	440
7/11/2013	2.85	-244	0	#N/A	176	260
10/14/2013	2.481	-172	0	0	118	240
12/3/2013	2.83	-249	0.1	0	254	280
4/11/2014	2.816	-43	0	0	160	220
8/15/2014	2.5	-281	0	0	256	280

Well ID: MW-18D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/30/2011	3.11	-156	0	0.237	122	88.4
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3/28/2012	3.5	-291	0	0.161	148	27
6/19/2012	2.75	-242	0.1	0.114	144	26
9/25/2012	2.5	-322	0.2	0.174	166	300
12/3/2012	2.4	-130	0	0.136	148	242
4/2/2013	2.287	-195	0	0.0945	172	360
7/19/2013	2.03	-253	0	0	184	260
10/18/2013	2.13	-106	0	0.0486	70	80
12/4/2013	2.19	-261	0	0	84	#N/A
4/17/2014	2.27	-251	0	0.065	152	#N/A
8/15/2014	1.98	-185	0	0	226	260

EKONOL FACILITY

Well ID: MW-19D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/31/2011	5.3	-106	1.8	0.107	304	459
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A	0.102	#N/A	#N/A
6/19/2012	5.6	-230	2	0.102	540	6
9/21/2012	4.66	-87	2	0.107	552	62
12/3/2012	5.73	-91	2.6	0.202	512	54
4/2/2013	5.89	-35	2.4	0.107	602	98
7/9/2013	5.13	22	2	0	390	30
10/9/2013	6.33	-66	2	0.119	680	#N/A
12/6/2013	5.47	-33	2	0	434	540
4/16/2014	3.17	-178	0	0.142	200	380
8/15/2014	4.66	-109	0	0	100	200

Well ID: MW-20D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	2.39	-332	0	0	193	#N/A
8/24/2011	1.76	-357	0	0	168	289
11/1/2011	1.25	-328	0	0	140	18
3/23/2012	1.84	-367	0.2	3	320	54
6/26/2012	1.56	-364	0.3	0	254	38
9/25/2012	1.56	-412	0.2	0	252	44
12/11/2012	1.68	-354	0.2	0	314	88
4/11/2013	2	-272	0	0	110	32
7/18/2013	1.75	-313	0	0	220	440
10/16/2013	2.041	-192	0	0	84	240
12/10/2013	1.87	-340	0	0	330	260
4/15/2014	2.21	-275	0	0	200	300
8/18/2014	1.77	-294	0	0	170	380

EKONOL FACILITY

Well ID: MW-21D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/22/2011	2.17	-113	0.8	0	63	221
8/24/2011	2.02	-318	0.6	0	182	272
11/1/2011	1.61	-281	0.6	0	170	2
3/23/2012	1.83	-317	1	0	134	28
6/22/2012	1.72	-311	1	0	244	3
9/18/2012	1.7	-282	1	0	162	28
12/11/2012	1.57	-317	0.5	0	272	5
4/11/2013	1.962	-267	0.5	0	80	2
7/19/2013	1.08	-180	1.5	0	80	280
10/16/2013	1.727	-148	0.5	0	174	200
12/10/2013	1.57	-284	0	0	160	260
4/15/2014	1.91	-252	1.4	0	120	200
8/15/2014	1.51	-188	1.6	0	90	220

Well ID: OR-3SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	4.92	-127	3.4	8.47	2400	1139
8/25/2011	5.08	-175	6	17.6	2500	1615
11/8/2011	5.14	-113	2	16.5	380	134
3/23/2012	5.86	-136	1.8	6.7	608	18
6/19/2012	4.64	-159	5.6	6.15	559	234
9/21/2012	4.22	-135	1.2	3.7	1636	26
12/10/2012	4.07	-112	1.1	2.88	322	2156
4/4/2013	6.172	-161	1.6	2.72	336	78
7/9/2013	7.104	8	1.6	0.3	746	320
10/9/2013	8.14	-141	3.5	2.74	1540	340
12/6/2013	6.99	18	0.5	0	116	748
4/11/2014	7.396	-6	1.1	1.68	208	#N/A
8/20/2014	12.7	-153	2.4	0	202	840

EKONOL FACILITY

Well ID: OR-4SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	4.33	-216	2.8	22.8	1200	85
8/25/2011	3.2	-131	0	14.7	#N/A	#N/A
11/9/2011	2.9	-101	1.8	8.88	#N/A	#N/A
3/23/2012	2.55	-214	1.6	7.37	348	1237
6/19/2012	4.82	-284	6	7.16	661	138
9/21/2012	2.63	-162	0.5	6.75	546	12
12/10/2012	2.89	-85	1.2	6.49	178	2178
4/4/2013	3.23	-91	1.2	7.73	366	510
10/14/2013	3.37	-127	1	6.83	210	1500
12/6/2013	3.453	-82	0.4	0	182	1180
4/11/2014	3.878	-23	0.8	6.44	222	1280
8/20/2014	2.75	-109	2.4	0	876	1420

Well ID: OR-5SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/5/2011	4.33	-369	1	2.29	800	68
8/29/2011	2.52	-319	0	1.76	900	85
11/1/2011	2.34	-317	1	1.87	762	32
3/21/2012	3.35	-137	4.4	3.67	530	7
6/20/2012	3.28	-284	7.6	3.17	594	1
9/19/2012	3.07	-241	1.1	1.96	592	82
12/4/2012	3.11	-139	4	1.78	958	17
4/3/2013	9.58	-125	1.2	2.32	64	81
7/10/2013	6.552	-4	1.8	0	92	306
10/10/2013	5.347	-140	1.4	1.87	632	340
12/5/2013	4.284	-96	1	0	82	17
4/9/2014	8.683	-1	0.8	2.29	146	225
8/13/2014	6.17	-183	--	--	--	--

EKONOL FACILITY

Well ID: OR-6SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/5/2011	8.39	-142	7	20.9	1266	1428
8/29/2011	5.55	-172	3.6	19.5	1090	969
11/1/2011	4.53	-242	2.6	15.7	1700	85
3/22/2012	4.98	-179	5.2	10.7	690	9
6/21/2012	4.82	-284	5.7	11.2	1786	172
9/19/2012	5.47	-190	1.3	7.84	464	11
12/4/2012	5.57	-232	2.9	7.57	2094	136
4/3/2013	5.422	-253	#N/A	6.57	#N/A	#N/A
7/10/2013	5.77	-445	#N/A	5.28	#N/A	225
10/10/2013	5.9	-278	0	4.95	--	--
12/5/2013	5.78	-343	--	--	--	--
4/9/2014	5.902	-142	0	5.18	--	--
8/14/2014	3.96	-390	--	--	--	--

Well ID: OR-9SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	3.67	-296	4.4	6.26	1750	748
8/26/2011	3.93	-131	NA	9.35	NA	#N/A
11/4/2011	3.07	-240	#N/A	3.99	#N/A	#N/A
3/23/2012	4.86	-334	0.3	1.56	498	473
6/27/2012	3.21	-345	0	1.73	642	78
9/21/2012	2.86	-298	0	1.46	984	12
12/6/2012	2.55	-319	0	1.34	498	142
4/5/2013	4.82	-284	0.4	1.06	198	36
7/17/2013	3.884	-261	0.1	0	300	720
10/17/2013	1.966	-207	0.2	0.524	186	280
12/10/2013	1.39	-340	0	0	510	460
4/14/2014	2.17	-293	0	0.261	138	240
8/20/2014	2.4	-324	0.2	0	368	720

EKONOL FACILITY

Well ID: OR-10SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/25/2011	6.85	-175	6.6	21.6	1000	136
8/26/2011	5.9	-27	4.5	14.7	5000	1326
11/4/2011	6.07	-169	2.2	8.71	1692	68
3/23/2012	6.54	-250	1.4	6.84	665	1665
6/27/2012	4.18	-275	#N/A	4.52	#N/A	#N/A
9/21/2012	4.06	-234	1.1	3.88	700	118
12/7/2012	2.6	-198	1.5	2.71	218	1826
4/5/2013	4.463	-254	#N/A	3.27	#N/A	#N/A
7/17/2013	5.142	-216	#N/A	2.8	#N/A	#N/A
10/8/2013	2.89	-321	0	1.49	1500	600
12/10/2013	2.87	-313	--	--	--	--
4/16/2014	3.62	-295	0	1.2	792	840
8/20/2014	4.24	-323	0.4	0	394	1220

Well ID: OR-13SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/30/2011	10.7	-140	4.8	25.9	2500	187
8/29/2011	5.74	-159	2.4	22.5	2066	12
11/2/2011	5.56	-173	1.2	17.8	1.22	48
3/22/2012	4.64	-171	3.2	12.3	616	17
6/21/2012	4.36	-209	9.2	8.99	810	246
9/20/2012	4.45	-131	1.2	8.38	1604	216
12/4/2012	4.49	-114	#N/A	6.6	#N/A	#N/A
4/4/2013	4.45	-266	#N/A	5.91	#N/A	#N/A
7/15/2013	4.781	-119	#N/A	5.11	#N/A	#N/A
10/10/2013	4.978	-161	0	4.75	--	--
12/4/2013	4.576	-111	0.1	0.5	372	1160
4/8/2014	5.8	-124	0	3.29	--	--
8/13/2014	4.58	-398	0	0	--	--

EKONOL FACILITY

Well ID: OR-14SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/30/2011	8.56	-127	5	25.9	2490	153
8/23/2011	4.35	-176	3.6	19.5	1820	16
11/2/2011	5	-192	1.6	14.4	1366	17
3/21/2012	4.9	-150	2.4	11.9	278	2
6/25/2012	4.47	-240	3.4	10.4	542	216
9/20/2012	4.24	-377	0	8.37	0	--
12/5/2012	4.12	-399	#N/A	8.07	#N/A	#N/A
4/4/2013	4.841	-231	#N/A	6.72	#N/A	#N/A
7/16/2013	4.812	-191	#N/A	5.77	#N/A	#N/A
10/10/2013	3.23	-294	0	3.77	--	--
12/4/2013	4.123	-215	--	--	--	#N/A
4/9/2014	8.35	-432	0	3.95	--	--
8/14/2014	3.13	-340	0	0	--	--

Well ID: OR-15SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	5.02	-131	4	24.2	2912	17
8/26/2011	5.11	-59	2	22.6	1920	24
11/7/2011	4.37	-186	2.6	15.5	4000	24
3/28/2012	4.99	-227	2	15.2	362	225
6/19/2012	4.43	-187	8	12	1848	24
9/21/2012	4.3	-202	0.6	11	594	124
12/11/2012	4.63	-187	2.2	10	460	35
4/8/2013	4.13	-82	2.2	11.3	326	>6
7/19/2013	4.762	2	1.8	0.3	224	323
10/9/2013	4.362	-117	2.2	9.23	396	860
12/9/2013	4.03	-158	1.4	0	690	#N/A
4/15/2014	4.04	-107	1.2	9.54	2200	360
8/20/2014	3.28	-148	2.6	0	796	1880

EKONOL FACILITY

Well ID: OR-18SM

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	1.3	-375	2.6	7.49	3640	154
8/26/2011	3.42	-343	0.4	4.3	1076	1241
11/8/2011	2.23	-331	0.5	1.27	605.6	28
3/20/2012	1.93	-290	0	1.96	392	64
6/19/2012	2.45	-350	0.6	2.11	1051	16
9/21/2012	2.11	-322	0.2	1.37	786	11
12/11/2012	1.78	-320	0.2	0.875	400	88
4/8/2013	1.82	-235	0	1.37	442	64
7/12/2013	1.48	-271	0.4	0	394	440
10/9/2013	1.749	-251	0	0.637	128	760
12/3/2013	1.439	-330	0	0	372	460
4/8/2014	2.38	-287	0	0.739	428	437.5
8/19/2014	1.49	-330	0	0	290	520

Well ID: PMW-1S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/6/2011	4.2	-366	0.9	0.83	458	578
8/29/2011	3.09	-216	3.2	4.32	1300	731
11/3/2011	3.17	-178	1.6	4.01	844	57
3/21/2012	3.09	-246	2.8	1.24	368	822
6/25/2012	2.5	-321	1.2	0.835	464	58
9/19/2012	2.41	-309	0.6	0.629	224	26
12/5/2012	2.22	-228	0.4	0.23	98	3
4/3/2013	7.08	-202	1.8	1.93	112	82
7/10/2013	3.896	-145	0.2	0	120	200
10/15/2013	3.581	-211	0.1	0.409	144	140
#N/A	#N/A	#N/A	#N/A	0.41	#N/A	#N/A
4/9/2014	8.54	-314	0	1.12	--	--
8/13/2014	5.23	-339	0	0	106	140

EKONOL FACILITY

Well ID: PMW-2S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/6/2011	4.5	-428	0	2.26	680	697
8/29/2011	2.78	-166	#N/A	3.97	#N/A	--
11/3/2011	2.77	-176	1.4	3.41	262	56
3/22/2012	5.53	-214	3.2	2.85	368	742
6/20/2012	4.13	-173	4.8	3.06	650	72
9/24/2012	3.07	-213	1.2	1.61	600	8
12/4/2012	2.37	-215	2.2	1.15	462	98
4/3/2013	10.17	-279	1.2	1.5	302	5
7/11/2013	7.292	-54	0.5	0.01	600	520
10/10/2013	5.589	-191	0.7	1.3	188	520
12/5/2013	#N/A	#N/A	#N/A	1.36	#N/A	#N/A
4/9/2014	7.521	-168	0.1	0.909	328	460
8/12/2014	6.09	-16	0	0	172	300

Well ID: PMW-3S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/6/2011	5.82	-380	0.6	2.27	554	51
8/25/2011	3.41	-226	#N/A	2.52	#N/A	--
11/3/2011	4.64	-322	1.6	2.77	386	31
#N/A	#N/A	#N/A	#N/A	2.87	#N/A	#N/A
6/25/2012	4.46	-200	2.6	3.35	960	76
9/24/2012	3.92	-219	2.2	1.86	610	74
12/5/2012	4.99	-238	2.4	2.57	548	94
4/3/2013	6.053	-278	0.3	2.97	966	980
7/11/2013	6.266	-114	0.3	0.03	662	640
10/15/2013	5.273	-201	0	2.73	7.66	880
#N/A	#N/A	#N/A	#N/A	2.3	#N/A	#N/A
4/10/2014	5.991	-150	0.3	2.29	338	1238
8/13/2014	5.47	-293	0.2	0	462	760

EKONOL FACILITY

Well ID: PMW-4S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	3.65	-70	0.4	0.209	100	17
8/30/2011	3.49	83	0	0.302	148	272
11/10/2011	6.24	-177	0.2	0.652	220	19
3/26/2012	6.22	-314	0.4	1.19	172	27
6/19/2012	7.06	-148	0	0.763	210	42
9/24/2012	6.11	-114	1.4	0.841	508	32
12/11/2012	6.9	-47	1.1	1.27	134	48
4/8/2013	7.495	-27	0.4	1.25	390	34
7/18/2013	7.674	-19	2.4	0	292	340
10/14/2013	6.587	-130	1.1	0.777	252	320
12/9/2013	6.39	-31	1.2	0	210	260
4/11/2014	5.85	31	1.1	1.16	300	400
8/20/2014	2.51	-43	3.8	0	290	240

Well ID: PMW-5S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	8.69	43	1	4.33	120	493
8/26/2011	3.7	-15	1.4	3.28	280	221
11/9/2011	5.29	-116	1	2.79	184	25
3/27/2012	4.36	-49	0	1.52	246	322
6/19/2012	4.37	-27	0	1.7	228	5
9/19/2012	3.84	-155	0.4	2.1	330	52
12/11/2012	2.62	88	0.2	1.06	66	42
4/5/2013	#N/A	#N/A	0.4	1.58	212	221
7/9/2013	3.453	64	0.2	0.3	248	380
10/10/2013	#N/A	#N/A	0	1.66	580	500
12/6/2013	3.1	-34	0.8	0	168	340
4/11/2014	3.69	-104	0	1.6	0	0
8/12/2014	4	70	1.2	0.1	364	580

EKONOL FACILITY

Well ID: PMW-6S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/1/2011	7.69	-131	4.8	24.6	1868	935
8/26/2011	3.78	-332	0.4	6.31	1600	1071
11/7/2011	3.68	-452	0	5.83	NS	NS
3/23/2012	2.98	-146	2.2	5.13	188	1395
6/22/2012	2.43	-128	4.4	4.87	1042	0
9/19/2012	2.03	-134	0.8	4.96	790	960
12/10/2012	2.98	-68	1.2	4.12	284	1740
4/9/2013	3.081	-114	1.5	4.63	216	1000
7/9/2013	3.18	-85	10	0.3	1240	3000
10/14/2013	2.76	-112	1.8	5.44	1200	1300
#N/A	#N/A	#N/A	#N/A	4.43	#N/A	#N/A
4/16/2014	5	-209	1.9	3.11	1386	1100
8/20/2014	2.84	-90	4.2	0	1150	1340

Well ID: PMW-7S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
7/1/2011	7.88	98	2.2	0.625	240	561
8/26/2011	5.79	51	0.8	0.362	214	391
11/10/2011	6.91	-104	2.5	0.408	448	34
3/27/2012	0	NS	0.1	0.127	1086	472
6/22/2012	5.82	54	4.2	0.285	674	6
9/26/2012	5.74	-70	0.6	0.256	534	6
12/6/2012	2.92	-182	0.5	0.148	318	48
4/5/2013	#N/A	#N/A	0.4	0.158	352	221
7/18/2013	5.779	78	2	0	314	520
10/17/2013	5.765	-97	0.9	0.163	202	227.5
12/12/2013	--	--	0.4	0	370	460
4/16/2014	--	--	0	0.162	170	280
8/20/2014	--	--	0.6	0	166	260

EKONOL FACILITY

Well ID: PMW-8S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/28/2011	5.34	-282	6.5	7.77	300	16
8/25/2011	5.09	-358	0	3.18	976	127
11/10/2011	4.45	-326	0.4	1.7	1228	59
3/27/2012	5.49	-259	0.1	1.27	828	495
6/22/2012	4.76	-290	0.6	1.51	584	7
9/26/2012	4.4	-349	0	1.54	0	--
12/6/2012	3.92	-288	1.2	1.54	210	134
4/5/2013	5.309	-302	1.4	1.28	546	24
7/17/2013	5.406	-122	0.1	0.1	534	0
10/8/2013	3.58	-323	0	0.927	960	#N/A
12/11/2013	3.09	-311	0.9	0	804	#N/A
4/15/2014	1.8	-103	1.6	0.408	130	640
8/19/2014			0.2	0	170	500

Well ID: PMW-9S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/30/2011	9.7	99	0	0.701	600	51
8/23/2011	5.21	54	0	0.844	378	34
11/2/2011	5.17	-165	1	0.926	480	28
3/22/2012	5.05	38	0	0.47	220	36
6/21/2012	4.65	48	0.4	0.647	394	4
9/24/2012	4.56	46	0.2	0.657	490	46
12/4/2012	5.21	177	0.2	0.185	170	858
4/8/2013	5.432	145	0	0.292	256	4
7/16/2013	5.248	26	0	0	300	420
10/15/2013	5.02	-107	0.1	0.401	366	320
12/4/2013	6.849	-19	0	0	230	320
4/8/2014	11.24	40	0	0.41	238	420
8/13/2014	6.74	27	0.2	0	334	480

EKONOL FACILITY

Well ID: PMW-10S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/30/2011	6.57	109	0	0.356	234	36
8/25/2011	4.11	3	0.6	0.223	120	357
11/3/2011	4.97	34	1.8	0.339	382	2
3/22/2012	4.94	72	0	0.0575	180	338
6/25/2012	4.07	112	0	0.279	256	44
9/24/2012	--	--	0	0.183	288	28
12/4/2012	4.9	206	0	0.0437	176	616
4/4/2013	#N/A	#N/A	0	0.271	324	7
7/16/2013	4.715	81	0.2	0	342	380
10/10/2013	#N/A	#N/A	0	0.357	278	400
12/3/2013	--	--	0.1	0	232	300
4/10/2014	--	--	0	0.222	234	340
8/12/2014	7.07	56	1	0	214	300

Well ID: PMW-11S

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	4.6	70	0.2	0.453	244	36
8/26/2011	3.99	-145	0.5	0.369	166	153
11/9/2011	3.72	49	0.2	0.37	260	36
3/20/2012	4.32	22	0.6	0.422	170	2
6/20/2012	4.08	7	0.7	0.418	256	38
9/25/2012	3.99	-155	1	0.421	330	4
12/6/2012	4.24	118	0.8	0.445	330	7
4/11/2013	4.58	-20	1	0.51	330	8
7/18/2013	3.97	-25	0.6	0	410	520
10/9/2013	4.57	-174	0.8	0.471	298	440
12/9/2013	4.25	50	--	--	--	--
4/8/2014	3.8	49	1.1	0.548	356	580
8/19/2014	4.09	-32	1.2	0.5	382	540

EKONOL FACILITY

Well ID: PMW-1D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	3.73	-293	0	0.27	380	5
8/23/2011	4.38	-332	0	0.248	550	64
11/9/2011	1.77	-309	0	0.178	216	19
3/28/2012	2.76	-335	0.3	0.122	188	43
6/26/2012	2.75	-312	0.5	0.211	348	4
9/25/2012	1.79	-345	0.2	0.132	232	32
12/6/2012	3.23	-145	2.6	3.38	#N/A	12
4/9/2013	3.711	-232	#N/A	3.3	#N/A	#N/A
7/16/2013	0.333	-244	#N/A	0.192	#N/A	#N/A
10/11/2013	1.275	-184	0	0.969	0	0
12/11/2013	0.429	-107	1.1	0	114	80
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8/21/2014	1.77	-173	--	--	--	--

Well ID: PMW-2D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	7.72	-321	0	0.368	600	86
8/23/2011	4.38	-314	0	0.376	700	13
11/3/2011	2.96	-349	0	0.409	788	34
3/21/2012	4.01	-369	0.5	0.385	608	88
6/20/2012	2.61	3	0.6	0.252	464	82
9/24/2012	2.56	-387	0	0.265	502	72
12/6/2012	2.87	-357	0.4	0.467	464	76
4/4/2013	#N/A	#N/A	0	0.299	440	328
7/11/2013	4.32	-365	0	0	480	1000
10/15/2013	#N/A	#N/A	0	0.471	1220	0
12/12/2013	3.61	-349	0	0	742	1000
4/10/2014	4.22	-296	0	0.211	700	880
8/15/2014	3.79	-352	0	0	500	600

EKONOL FACILITY

Well ID: PMW-3D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/24/2011	3.96	-378	0	0.142	280	9
8/24/2011	3.49	-338	0	0.0332	460	92
11/9/2011	2.95	-397	0	0.132	272	41
3/20/2012	3.05	-359	0	0.0351	324	495
6/27/2012	2.68	-341	0.1	0.0399	314	7
9/18/2012	2.76	-375	0.2	0.044	518	8
12/5/2012	2.82	-315	0.2	0.133	884	15
4/9/2013	3.84	-310	0	0.239	452	46
7/16/2013	3.51	-342	0	0	690	800
10/11/2013	3.39	-351	0	0.358	980	800
12/9/2013	2.92	-348	0	0	454	640
4/9/2014	7.09	-320	0	0.34	720	640
8/22/2014	3.76	-337	0.2	0	450	700

Well ID: PMW-4D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/24/2011	4.45	-359	0	0.129	750	86
8/23/2011	3.46	-311	0	0.0618	570	86
11/8/2011	2.93	-385	0.2	0.119	460	58
3/20/2012	7.97	-387	0	0.0527	448	495
6/27/2012	2.53	-379	0.1	0.117	248	82
9/25/2012	2.67	-392	0	0.112	588	86
12/5/2012	3.88	-291	0.4	0.503	950	48
4/12/2013	5.398	-362	0.1	0.645	516	5
7/17/2013	3.74	-353	0	0	970	1500
10/11/2013	3.61	-368	0	0.307	1100	#N/A
12/3/2013	3.33	-370	0	0	900	1080
4/8/2014	0	0	0	0.449	--	--
8/21/2014	4.04	-347	0	0	562	900

EKONOL FACILITY

Well ID: PMW-6D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	12.2	-321	0	0.922	560	96
8/23/2011	6.66	-351	0	0.691	270	66
11/3/2011	0.76	-400	0	0.005	82	8
3/22/2012	3.87	7326	0.5	0.326	180	383
6/20/2012	3.45	-336	0.2	0.497	480	9
9/20/2012	3.08	-353	0	0.432	448	58
12/5/2012	3.09	-293	0.6	0.649	434	96
4/9/2013	#N/A	#N/A	#N/A	0.533	#N/A	187
7/16/2013	3.47	-335	#N/A	0.433	#N/A	#N/A
10/10/2013	0.184	-228	0	0.152	0	0
12/12/2013	--	--	0	0	304	0
4/15/2014	--	--	0	0.0181	156	520
8/19/2014	--	--	--	--	--	--

Well ID: PMW-7D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/24/2011	9.11	-357	0	0.336	650	82
8/23/2011	4.44	-335	0	0.174	290	6
11/8/2011	3.2	-359	0.6	0.459	555	5
3/20/2012	6.97	-377	0	0.194	488	495
6/26/2012	2.69	-370	0	0.153	454	7
9/25/2012	2.31	-389	0	0.163	322	84
12/10/2012	3.98	-344	0.2	0.562	700	114
4/4/2013	4.82	-310	0.3	0.39	708	51
7/12/2013	4.51	-359	0	0	760	1000
10/11/2013	3.4	-363	0	0.32	960	1000
12/12/2013	3.65	-371	0	0	764	940
4/8/2014	5.02	-301	0	0.436	540	720
8/21/2014	4.96	-337	0	0	562	740

EKONOL FACILITY

Well ID: PMW-8D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/31/2011	3.98	-399	0.1	0.37	800	432
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3/26/2012	4.84	-392	0	0.422	176	9
6/22/2012	3.76	-368	0	0.371	300	86
9/18/2012	3.41	-383	0.1	0.314	498	6
12/13/2012	4.49	-378	0.1	0.433	842	144
4/8/2013	4.54	-392	0	0.338	692	84
7/19/2013	4.938	-284	0	0	444	800
10/18/2013	4.11	-352	0	0.345	692	420
12/6/2013	4.19	-363	0	0	934	#N/A
4/14/2014	5.12	-370	0	0.527	616	187
8/22/2014	4.72	-355	0	0	568	800

Well ID: PMW-9D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	2.72	-284	0.1	0.213	160	323
8/25/2011	1.97	-305	1	0.371	380	221
11/7/2011	2.78	-347	0.6	0.468	4000	4
3/28/2012	2.95	-375	0.2	0.363	146	382
6/22/2012	1.84	-356	0	0.218	256	66
9/26/2012	1.98	-364	0	0.0918	300	64
12/7/2012	4.59	-314	#N/A	0.781	#N/A	#N/A
4/8/2013	4.31	-260	#N/A	1.87	#N/A	#N/A
7/9/2013	3.799	-47	#N/A	1.44	#N/A	187
10/16/2013	3.7	-148	0	1.61	--	--
12/11/2013	2.62	-492	--	--	--	--
4/9/2014	2.82	-172	0	1.32	--	--
8/19/2014	4.22	-369	--	--	--	--

EKONOL FACILITY

Well ID: PMW-10D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	2.2	-260	0.8	0.194	100	294.1
8/25/2011	1.9	-309	#N/A	0.303	#N/A	--
11/4/2011	1.75	-456	#N/A	0.811	#N/A	#N/A
3/26/2012	2.47	-485	#N/A	1.43	#N/A	#N/A
6/26/2012	1.98	-324	4.6	1.43	1384	68
9/24/2012	1.94	-173	0	1.3	0	--
12/12/2012	2.71	-268	0.7	1.1	264	56
4/11/2013	12.16	-261	1.4	2.01	218	2
7/9/2013	1.84	-426	#N/A	1.01	#N/A	#N/A
10/14/2013	2.54	-437	0	1.46	--	--
12/12/2013	1.86	-458	0	0	--	--
4/9/2014	3.38	-172	0	0.972	--	--
8/21/2014	2.11	-380	--	--	--	--

Well ID: PMW-11D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/29/2011	3.36	-223	1	0.208	126	28.5
8/25/2011	1.74	-162	0.4	0.223	184	238
11/1/2011	1.41	-355	0	0.2	190	2
3/21/2012	1.51	-168	1.2	0.438	350	3
6/21/2012	1.37	-213	#N/A	0.286	#N/A	#N/A
9/20/2012	1.49	-315	0.8	0.199	224	28
12/6/2012	1.57	-321	0.1	0.396	122	528
4/8/2013	1.937	-334	#N/A	0.241	#N/A	#N/A
7/10/2013	1.92	-340	1	0	240	400
10/16/2013	1.7	-373	0	0.264	0	0
12/4/2013	1.83	-374	0	0	310	340
4/10/2014	1.68	-360	0	0.225	202	260
8/13/2014	1.8	-356	--	--	--	--

EKONOL FACILITY

Well ID: PMW-12D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	3.19	-371	0	0.598	8.39	48
8/24/2011	2.89	-253	#N/A	0.755	#N/A	--
11/7/2011	3.61	-241	#N/A	1.09	#N/A	#N/A
3/29/2012	3.87	-208	2.9	1.52	176	315
6/26/2012	2.58	-189	8.4	1.03	448	54
9/25/2012	1.76	-292	0	0.373	492	74
12/10/2012	2.75	-237	#N/A	3.48	#N/A	#N/A
4/10/2013	4.85	-179	1.7	0.606	162	1
7/18/2013	4.196	39	#N/A	2.07	#N/A	#N/A
10/16/2013	3.93	-112	0	3.17	--	--
12/12/2013	3.08	-302	0	0	--	--
4/9/2014	4.12	-150	0	1.76	--	--
8/18/2014	2.7	-382	--	--	--	--

Well ID: PMW-13D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	2.27	-289	1	0.254	240	323
8/24/2011	2.51	-275	#N/A	0.848	#N/A	--
11/7/2011	2.37	-228	#N/A	1.79	#N/A	#N/A
3/29/2012	3.98	-517	#N/A	0.934	#N/A	#N/A
6/26/2012	7.02	-413	#N/A	1.56	#N/A	#N/A
9/25/2012	1.6	-542	0	1.15	0	--
12/12/2012	3.26	-199	#N/A	0.873	#N/A	#N/A
4/9/2013	3.36	-204	#N/A	3.34	#N/A	#N/A
7/18/2013	4.183	-116	#N/A	2.79	#N/A	#N/A
10/16/2013	3.21	-116	0	1.93	0	0
12/12/2013	2.51	-472	--	--	--	306
4/10/2014	2.62	-420	0	0.557	0	238
8/22/2014	2.06	-289	--	--	--	--

EKONOL FACILITY

Well ID: PMW-14D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/27/2011	2.3	-187	3.6	0.211	209	289
8/24/2011	2.09	-283	#N/A	0.672	#N/A	--
11/8/2011	2.93	-128	#N/A	1.39	#N/A	#N/A
3/29/2012	3.68	-429	#N/A	2.65	#N/A	#N/A
6/27/2012	2.45	-454	#N/A	2.27	#N/A	#N/A
9/27/2012	2.38	-474	0	1.78	0	--
12/11/2012	3.77	-355	#N/A	1.28	#N/A	#N/A
4/9/2013	8.41	-504	#N/A	1.5	#N/A	#N/A
7/17/2013	2.79	-212	#N/A	1.98	#N/A	308
10/18/2013	2.904	-184	0	1.89	--	16
12/13/2013	2.879	-174	0	0	--	280
4/8/2014	4.65	-364	0	1.25	--	240
8/18/2014	3.07	-235	--	--	--	--

Well ID: PMW-16D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/24/2011	2.17	-300	1	0.226	120	289
8/24/2011	0.731	-364	0	0.00053	0	24
11/8/2011	1.22	-373	0	0.0005	high pH	19
3/28/2012	0.565	-222	0.1	0.005	0	67
6/27/2012	0.577	-395	0	0.0022	0	18
9/25/2012	0.282	-318	0	0.00083	0	8
12/11/2012	3.06	-297	0.2	0.681	834	7
4/10/2013	13.16	-345	#N/A	0.843	#N/A	#N/A
7/18/2013	2.36	-323	0	3	766	500
10/18/2013	2.01	-354	0	0.304	400	297.5
12/12/2013	2.251	-347	0.1	0	362	300
4/10/2014	5.82	-333	0	0.699	440	780
8/18/2014	2.48	-335	0	0	840	580

EKONOL FACILITY

Well ID: PMW-15D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
8/29/2011	2.15	-231	#N/A	0.499	#N/A	--
11/1/2011	2.6	-431	#N/A	0.804	#N/A	#N/A
3/22/2012	1.66	-478	#N/A	0.978	#N/A	76
6/21/2012	1.7	-461	#N/A	0.298	#N/A	#N/A
9/20/2012	1.81	-397	0	0.223	516	44
12/4/2012	2.56	-348	0.2	0.375	270	18
4/10/2013	2.622	-388	#N/A	0.421	#N/A	#N/A
7/10/2013	2.66	-194	#N/A	2.08	#N/A	#N/A
10/16/2013	2.35	-247	0	2.02	0	#N/A
12/4/2013	2.19	-281	0	0	694	720
#N/A	#N/A	#N/A	#N/A	0.462	#N/A	#N/A
8/12/2014	2.55	-219	0	0	476	680

Well ID: PMW-17D

Date	Specific Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Manganese (mg/L)	Carbon Dioxide (mg/L)	Alkalinity (mg/L)
6/30/2011	3.33	-196	1.2	0.201	180	272
8/25/2011	1.74	-285	#N/A	0.367	#N/A	--
11/1/2011	1.77	-500	#N/A	0.494	#N/A	#N/A
3/27/2012	#N/A	#N/A	#N/A	1.2	#N/A	#N/A
6/20/2012	2.02	-380	0.4	0.364	416	7
9/20/2012	1.75	-389	0.4	0.229	310	54
12/4/2012	2.17	-357	#N/A	0.453	#N/A	#N/A
4/9/2013	3.811	-321	#N/A	1.11	#N/A	#N/A
7/10/2013	2.53	-341	0	0	480	660
10/15/2013	0.304	-268	0	0.405	760	#N/A
12/5/2013	2.01	-368	0	5	590	760
4/8/2014	3.933	-311	0.1	0.553	252	480
8/12/2014	0.232	-236	0	0	300	360