

June 28, 2012

Mr. Mostafa Mehran
Senior Engineer, Hazardous Waste Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118 Project No. 0159348

Subject: 2011/2012 Annual Ground Water Monitoring Report
Whirlpool Corporation, Fort Smith, Arkansas

Dear Mr. Mehran:

Environmental Resources Management (ERM) is pleased to provide this 2011/2012 Annual Ground Water Monitoring Report for the Whirlpool Fort Smith site.

For more than ten years, Whirlpool has implemented a regular sampling program to monitor the concentrations and distribution of affected ground water associated with a historical release of trichloroethylene (TCE) at the Whirlpool Fort Smith facility. Based on investigations conducted between 1999 and 2006, TCE and associated degradation products (primarily cis-1,2-dichloroethene) are present in shallow ground water at the Whirlpool facility and have migrated off-site into a residential area north of the facility.

In an initial effort to remediate the off-site portion of the ground water plume, Whirlpool has conducted an Interim Measure (IM). This report incorporates sampling results from monitoring conducted to evaluate the effectiveness of the IM and semiannual sampling conducted between Fall 2011 and Spring 2012.

Background

As discussed in earlier IM Status Reports, the IM was conducted as a two-phased program. The initial phase included two In-situ chemical oxidation (ISCO) treatment events (conducted in April 2009 and July 2009) to evaluate the effectiveness of ISCO at treating the core of the off-site plume. The second phase was conducted between July 2010 and March 2011, and consisted of continued ground water monitoring and the pilot operation of a ground water pumping system. The objective of the pumping system was to test the ability to induce gradients and pull oxidant through the plume to treat the core of the plume.

Observations through March 2011 indicated the in situ permanganate treatments applied in 2009 had reduced concentrations of 1,1,2-trichloroethylene (TCE) in the immediate vicinity of the treatment wells. However, the pilot ground water pumping operations did not create sufficient gradients across the core of the plume to pull the permanganate to areas beyond the treatment wells.

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Operational difficulties associated with the ground water pumping system and limited access to certain properties indicate that using a pumping system as part of a longer-term component of the IM program is not feasible.

Whirlpool has continued the semi-annual sampling and performance monitoring to further assess the changes in ground water conditions after completion of the IM.

Scope of Work

The Fall 2011 semiannual ground water monitoring event for the Whirlpool Fort Smith facility was conducted October 24 through 27. The Spring 2012 semiannual event was conducted April 16 through 19. The scope of work for each semiannual event included:

- Gauging of water levels in 66 wells in the Fall and 64 wells in the Spring;
- Collection of ground water samples for analysis of VOCs, potassium, chloride, nitrate, and sulfate from 65 monitor wells during the Fall event and 39 monitor wells during the Spring event (during the Fall sampling event, several wells were added to the sampling program to provide more information on the nature of the ground water plume in areas that have not been regularly sampled in the past few years) ; and
- Collection of natural attenuation geochemical data including pH, specific conductivity (SC), temperature, dissolved oxygen (DO) Oxidation-reduction potential (ORP) and iron from 65 monitor wells during the Fall event and 39 monitor wells during the Spring event.

Sampling and Analyses Methods

During each semiannual sampling event, water levels in each well were gauged prior to sampling. Water level measurements are provided in Table 1 (Attachment 1). Following gauging activities, low-flow ground water sampling was performed using a peristaltic pump and dedicated polyethylene tubing. The tubing intake was placed at a depth in each well corresponding to the approximate middle of the Transmissive Zone. During low-flow purging, the wells were pumped at a rate generally less than 0.1 L/min in order to limit drawdown in the wells. Flow rate was checked using a stopwatch and Pyrex® graduated measuring cup. The drawdown and flow rate were monitored continuously during sampling, except in small diameter wells, where only flow rate was monitored.

Due to very slow recovery rates, low-flow sampling techniques were not followed at eight wells during the Fall 2011 sampling event (MW-50, MW-55, MW-56, MW-57, MW-60, MW-61, MW-62, and MW-63). These wells were purged dry once and then allowed to recover prior to sampling. Low-flow sampling techniques were successfully used on all 39 wells during the Spring 2012 sampling event.

Water quality parameters were monitored using a Troll 9000 water quality probe and flow-thru cell. Readings were recorded approximately every three minutes until parameters stabilized over three successive readings. Stabilization parameters included:

- pH within 0.1 standard units;
- Temp $\pm 1^{\circ}$ C;
- SC $\pm 3\%$;
- Turbidity $\pm 10\%$;
- DO $\pm 10\%$; and
- ORP ± 10 mV.

The parameters met the stabilization criteria within 1 hour in all wells that were sampled using low-flow techniques. Purge water generated during sampling was placed in containers for proper disposal by Whirlpool.

Ground water samples were collected in laboratory-supplied containers. Samples for VOC analysis were collected in three 40-ml glass vials preserved with hydrochloric acid.. Samples collected for sulfate and chloride analysis were collected in neat 750 ml plastic jars. Samples for potassium analysis were collected in 100 ml plastic jars and preserved with nitric acid. Samples for nitrate analysis were collected in 150 ml plastic jars preserved with sulfuric acid. Samples for iron analysis were collected in a Pyrex® beaker and tested in the field using a colorimeter and Hach Accuvac Ampules. Blind duplicate samples, field blank samples, and trip blank samples were collected during each of the semiannual events.

All samples for VOC analysis were labeled, stored on ice, and shipped to Test America in Houston, Texas for analyses by SW-846 Method 8260B for trichloroethylene (TCE), related chlorinated solvents, and degradation products that have been identified in previous sampling events. Samples for analysis of natural attenuation parameters (potassium, chloride, nitrate and sulfate) were labeled, stored on ice in an on-site cooler, and picked up by Data Testing, Inc. in Fort Smith, Arkansas for analyses by EPA water/wastewater methods. Samples for ferrous iron analysis were analyzed in the field by Hach DR820 colorimeter Accuvac Ampule method 8146. Chain of custody procedures were established and followed from the time of sample collection until the analyses were complete.

Ground Water Flow Evaluation

Based on an evaluation of potentiometric surface maps over the last five years, it appears that there are two distinct ground water flow regimes at the Fort Smith site. As illustrated by the potentiometric surface maps for Fall 2011 and Spring 2012 (Figures 1 and 2 [Attachment 2]), there is a broad area generally east of Ferguson Street and north of Ingersol Avenue where ground water flows to the northeast. This area is referred to as the Northern Flow Regime. A Southern Flow Regime, covering the majority of the Whirlpool Facility and extends south of Ingersol Avenue, flows southwestward. The flow regimes are separated by a ground water divide that is consistently present along a zone roughly coincident with the Whirlpool North Parking Lot (Figure 3). Over the past few years, the ground water divide has become less well defined and more broad than in the past, forming a fairly flat area where there is very little flow.

In the Northern Flow Regime, ground water flow is consistently toward the northeast with a gradient north of Jacobs St. that, for this reporting period, ranged from 0.014 to 0.0148 ft/ft from Fall to Spring.

Ground water flow gradients in the Southern Flow Regime are generally much lower, ranging from 0.00057 to 0.00183 ft/ft, and also exhibit minor seasonal fluctuations. The prevailing flow direction historically exhibits seasonal shifts of as much as 90 degrees. Ground water appears to flow to the south/southwest during Fall (Figure 1), and to the southeast during Spring (Figure 2).

Discussion of Sampling Results

Analytical data from the Fall 2011 and Spring 2012 sampling activities are summarized in Tables 2 and 3. A total of 21 VOCs were reported in samples from on-site source area monitor wells. In most cases only TCE and cis, 1-2 DCE were detected in off-site wells. TCE and cis, 1-2 DCE concentration maps illustrating the Fall 2011 and Spring 2012 data are provided as Figures 4 and 5.

To facilitate a review of the data over time, the monitor wells have been placed into several groups based on proximity to the source area; two groups of wells have been defined for the Northern Flow Regime and three groups of wells in the Southern Flow Regime. The following groupings are illustrated and identified on Figure 3, and graphs showing concentrations over time for key wells in each group are provided in Attachment 2.

Northern Flow Regime:

- North Boundary Area Wells (Figure 6 [Attachment 2])
- Off-Site Area Wells (Figure 7 [Attachment 2])

Southern Flow Regime:

- Source Area Wells (Figure 8 [Attachment 2])
- Pilot Study Area Wells (Figure 9 [Attachment 2])
- Fringe Area Wells (Figure 10 [Attachment 2])

North Boundary Area Wells

The North Boundary Area includes wells along Ingersoll Avenue (Figure 3). All North Boundary Area Wells are located on Whirlpool Property or on Ingersoll Avenue rights-of-way. Concentrations in most of the North Boundary Area wells appear stable with minor seasonal fluctuations (Figure 6). TCE and cis-1,2-DCE concentrations in MW-35 decreased significantly following the ISCO treatment events conducted in 2009. For example, TCE concentrations in MW-35 (situated at the southern end of the area where the ISCO treatment was applied as part of the IM) were typically near or slightly above 1 mg/L prior to treatment, but decreased to about 0.25 mg/L since the in situ treatment. However, TCE at MW-33 (located just south of Ingersoll) has remained stable with TCE concentrations of 1 to 1.3 mg/L prior to and after treatment.

Two of the common daughter products (1,1-Dichloroethene [1,1-DCE] or vinyl chloride) have generally been reported at very low levels or as *Not Detected* in the North Boundary Area Wells.

Off-Site Area Wells

The Off-Site Area includes all the wells installed at off-site properties to the north and northeast of the North Boundary Area and includes the area that was the target of the IM activities. (Figure 3). TCE concentrations in the Off-Site Area in 2012 continue to exhibit generally stable trends, while cis-1,2-DCE is generally decreasing.

Sample results from MW-41, located in the center of the ISCO treatment area, illustrate response to the ISCO Treatment. Prior to ISCO treatment, the TCE concentrations ranged from about 1 mg/L to 0.8 mg/L. Since the ISCO treatment events in 2009, TCE concentrations have reduced. With the exception of May and November 2010, TCE concentrations are below 0.7 mg/L. (Concentrations at MW-42 and MW-43 have not been measured over the past two years because these wells were damaged and temporarily sealed in place pending formal plugging and abandonment..)

Samples from wells located at the perimeter of the Off-Site Area continue to be reported as *Not Detected* or estimated ("J-flagged"). These include MW-50, MW-60, MW-61, MW-62, MW-66, and MW-67. Exceptions include MW-46R and MW-63 (located east beyond the influence of the ISCO treatment area along Jacobs Avenue) where concentrations have generally remained stable.

Discussion of Southern Flow Regime Analytical Results

Source Area Wells

The Source Area includes wells immediately adjacent to the northwest corner of the Whirlpool Factory Building and located west of the former degreaser building, the suspected source of TCE at the site (Figure 3). The highest TCE concentrations have historically been reported at MW-25 (157 mg/l in September 2002). Other Source Area Wells typically range up to about 20 mg/L. The concentration of daughter products (cis 1,2-DCE, 1,1-DCE, and vinyl chloride) are also highest in the source area wells.

During the first several years following the permanganate injection pilot test, cis-1,2-DCE and vinyl chloride concentrations at MW-25 increased slightly relative to TCE concentrations. This trend is consistent with reductive dechlorination in an anaerobic environment. Since 2010, the concentrations of both TCE and cis-1,2-DCE appear to have stabilized indicating the rate of reductive dechlorination may have decreased.

Pilot Study Area Wells

The Pilot Study Area Wells includes wells that are located northeast of the Source Area Wells (Figure 3) in the zone of influence of an in-situ chemical oxidation (ISCO) Pilot Study

conducted in 2001. Effects of the ISCO pilot study included a sharp decrease in TCE followed by rebound as affected water moved back into the area. Observed changes also included production of daughter products evidenced by an increase in cis-1,2-DCE concentrations followed by an increase in vinyl chloride concentrations.

More recently, concentrations in the Pilot Study Area Wells appear to be generally stable to slightly increasing; the one exception being MW-37 (Figure 9). , TCE has increased in MW-37 from less than 1 mg/L to over 50 mg/L, but in the past three years the concentration appears to have stabilized between about 30 mg/L and 55 mg/L. It appears that affected ground water not influenced by the pilot study has migrated into the pilot study area resulting in the anomalous increase in concentrations at MW-37.

Fringe Area Wells

The Fringe Area Wells are located on both the Northeast and Southwest sides of the Source Area. Concentration trends in Fringe Area Wells appear to be generally stable (Figure 9).

Data Usability

Based on data, a limited quality review conducted in general accordance with the United States Environmental Protection Agency's (EPA's) *National Functional Guidelines for Organic Data Review* (EPA540/R-99/008, October 1999). The laboratory data were determined to be generally usable for the purpose of this study. Data validation reports are provided in Attachment 3.

Evaluation of Natural Attenuation Data

Observed trends in the ground water data for many source area wells are consistent with changes associated with active reductive dechlorination (Table 2 and 3 [Attachment 1]). As described above, data collected from many of the wells north and south of the ground water divide are decreasing or stable, indicating that the ground water plume is generally stable or shrinking. Additional evidence of active reductive dechlorination processes in the source area include:

- Elevated chloride concentrations in areas not impacted by the pilot study (ITMW-17, ITMW-19, ITMW-21, MW-23, MW-24, and MW-25; and
- Depleted sulfate concentrations in the vicinity of the on-site and off-site TCE plumes (ITMW-17, ITMW-19, ITMW-21, MW-25, and MW-30; and MW-40, MW-46, MW-70, MW-71, and IW-74, respectively).

These data indicate that natural attenuation processes are active in the Source Area. Outside of these areas where the aquifer is more consistently aerobic, there does not appear to be evidence of significant degradation of the TCE or cis-1,2-DCE by natural attenuation.

Summary

A review of water level data from on-site and off-site wells continue to indicate there are two ground water flow regimes across the Site. The Northern Flow Regime and Southern Flow Regime are separated by a ground water divide that is generally situated in a zone south of Ingersol Avenue. The divide appears to be more broad than in the past, forming a flat area where there is very little flow.

In the Northern Flow Regime, wells that are in and directly adjacent to the area where the ISCO treatment IM was conducted in 2009 exhibit lower concentrations than prior to the IM. Some TCE concentrations are rebounding slightly (e.g., MW-41). Other wells that are outside the influence of the IM appear to have stable or slightly decreasing trends.

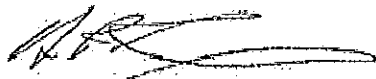
In the Southern Flow Regime, the ground water plume also appears to be stable, however, concentrations in the Source Area continue to exhibit seasonal fluctuations and remain at historically high levels (in the range of 15 to 30 mg/L and as high as 120 mg/L at MW-25).

The overall affect of the off-site ISCO treatment appears to have reduced concentrations near the center of the IM area by about half. However, due to the very low ground water gradients in the area, TCE in the core of the off-site part of the plume remain from 0.5 to 1 mg/L.


We appreciate the opportunity to continue to assist Whirlpool with this important project. If you have any questions concerning the scope of work or need additional information, please do not hesitate to call.

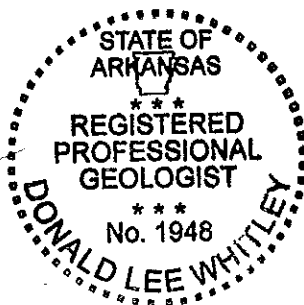
Sincerely,

Environmental Resources Management


H. Reiffert Hedgcoxe
Senior Partner


Troy Meinen
Project Manager


Donald L. Whitley, Arkansas P.G.



TWM/tsb
Attachment

cc: Mr. Bob Karwowski, Whirlpool Corporation

Tables
Attachment 1

June 28, 2012
Project No. 0159348

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TABLE 1

Water Level Elevations, Conventional Monitoring Wells
Whirlpool Corporation
Fort Smith, Arkansas

Well ID	Top of Pipe (ftAMSL)	Water Level (ftAMSL) December 2008	Water Level (ftAMSL) April 2009	Water Level (ftAMSL) October 2009	Water Level (ftAMSL) April 2010	Water Level (ftAMSL) October 2010	Water Level (ftAMSL) March 2011	Water Level (ftAMSL) October 2011	Water Level (ftAMSL) April 2012
ITMW-1	476.93	463.90	462.73	464.22	463.49	--	462.24	462.88	462.28
ITMW-2	474.97	464.55	463.72	465.06	464.31	--	463.06	463.19	463.43
ITMW-3	474.72	464.18	463.29	464.63	463.91	--	462.63	463.04	462.92
ITMW-4	478.19	463.88	462.69	464.14	463.53	--	462.24	462.77	462.22
ITMW-5	478.93	463.64	462.56	463.98	463.32	--	462.09	462.53	462.03
ITMW-6	483.04	463.45	462.47	463.80	463.19	--	461.94	462.24	461.86
ITMW-7	481.95	463.56	463.31	464.25	463.55	--	462.84	462.24	462.90
ITMW-9	481.90	463.74	462.60	464.03	463.43	--	462.13	462.63	462.09
ITMW-10	480.84	463.66	462.56	463.98	463.34	--	462.07	462.49	462.02
ITMW-11	474.07	464.85	464.29	465.47	464.75	--	463.44	463.40	463.95
ITMW-12	476.67	464.65	464.03	465.18	464.48	--	462.20	463.18	463.65
ITMW-13	477.79	464.65	464.02	465.25	464.54	--	463.20	463.20	463.70
ITMW-14	477.30	464.69	463.94	465.18	464.55	--	463.13	463.14	463.62
ITMW-15	474.50	464.86	464.28	465.48	464.78	--	463.34	463.34	463.97
ITMW-16	478.79	464.83	464.27	---	464.77	--	463.40	463.34	463.90
ITMW-17	477.90	464.70	464.12	465.28	464.61	--	463.25	463.15	463.77
ITMW-18	473.55	464.63	463.99	465.19	464.42	--	463.18	463.13	463.67
ITMW-19	476.25	464.66	464.07	465.25	464.57	--	463.24	463.17	463.74
ITMW-20	477.87	464.76	464.54	465.44	464.79	--	463.72	463.30	464.34
ITMW-21	476.52	464.62	464.38	465.32	464.65	--	463.58	463.20	464.14
IW-72	471.65	--	464.37	465.30	464.65	464.48	--	463.17	463.46
IW-73	471.48	--	464.47	465.85	464.85	464.66	--	463.30	463.98
IW-74	472.06	--	464.41	465.37	464.72	464.58	--	463.25	463.89
IW-75									
IW-76	472.26	--	464.32	465.40	464.63	464.51	--	463.18	463.77
IW-77	473.01	--	464.38	465.47	464.81	464.69	--	463.42	464.00
IW-78	473.49	--	464.37	465.47	464.78	464.67	--	463.36	463.58
IW-79	473.84	--	464.47	465.48	464.82	464.69	--	463.38	464.01
IW-80	473.30	--	464.36	465.35	464.63	464.56	--	463.25	463.88
MW-22	473.93	464.24	463.29	464.66	463.96	--	462.73	463.45	462.77
MW-23	475.80	464.88	464.32	474.19	464.83	--	463.42	463.37	464.01
MW-24	476.39	464.89	464.31	---	464.80	--	463.48	463.37	463.98
MW-25	476.89	464.87	464.36	465.49	464.83	--	463.50	463.38	464.01
MW-26	478.05	465.11	464.74	465.75	465.08	--	463.93	463.66	464.56

NOTES:

ft = feet

AMSL = above mean sea level

BTOP = below top of pipe

Co-ordinates provided by EDM Consultants, Inc.

Elevations are taken from Table 3-1, "Draft Report, Remedial Investigation, North Side Ground Water", Malcolm Pirnie, Inc., with the exceptions of ITMW-4 and MW-22 through MW-26 (EDM Consultants, Inc.) and MW-27 through MW-30 (Philip J. Leraris, P.E., L.S.).

* = Depth to water measurements for MW-24 through MW-26 were taken on 25 February 1999.

TOC for ITMW-2 estimated pending re-survey.

TABLE 1 (Cont'd)

Water Level Elevations, Conventional Monitoring Wells
Whirlpool Corporation
Fort Smith, Arkansas

Well ID	Top of Pipe (ftAMSL)	Water Level (ftAMSL) December 2008	Water Level (ftAMSL) April 2009	Water Level (ftAMSL) October 2009	Water Level (ftAMSL) April 2010	Water Level (ftAMSL) October 2010	Water Level (ftAMSL) March 2011	Water Level (ftAMSL) October 2011	Water Level (ftAMSL) April 2012
MW-27	475.42	464.89	464.31	---	464.79	--	463.44	463.34	463.98
MW-28	470.49	464.76	464.13	---	464.68	--	463.23	463.38	463.79
MW-29	474.91	463.97	464.30	464.97	464.17	--	463.28	462.64	463.91
MW-30	478.99	464.10	463.76	464.76	464.08	--	463.02	462.72	463.55
MW-31	476.03	464.28	464.25	---	463.78	--	463.45	463.29	--
MW-32	475.68	464.66	464.33	---	464.80	--	463.45	463.33	--
MW-33	474.88	464.86	464.33	---	464.78	--	463.44	463.28	463.97
MW-34	474.29	464.98	464.43	465.52	464.86	464.75	463.54	463.40	464.07
MW-35R	473.87	464.86	464.29	465.36	464.77	464.65	463.47	463.35	464.37
MW-36	473.30	465.00	464.49	465.51	461.86	464.80	463.59	463.49	464.12
MW-37	473.57	464.87	464.29	465.48	464.71	--	463.44	463.40	463.98
MW-38	474.60	464.89	464.29	465.48	464.77	--	463.43	463.38	463.95
MW-39	475.46	464.92	464.39	465.49	464.85	464.72	463.51	463.41	464.05
MW-40	473.35	464.92	464.40	---	464.78	464.68	463.49	463.34	464.02
MW-41	472.09	464.90	463.92	465.48	453.27	464.67	463.55	463.60	464.04
MW-42	471.72	465.04	464.58	---	---	--	463.95	--	--
MW-43	470.94	464.97	464.16	---	---	--	463.69	--	--
MW-46R	465.76	464.45	463.96	465.04	464.42	464.16	463.17	458.03	463.62
MW-50	463.11	459.55	457.87	460.51	455.14	460.66	456.46	458.53	456.78
MW-55	465.50	464.71	464.19	465.46	463.44	464.30	463.34	461.91	462.16
MW-56	463.22	462.24	463.01	463.06	460.86	--	461.86	459.24	459.52
MW-57	462.90	460.27	461.22	460.98	461.79	--	461.30	458.49	460.69
MW-58	462.71	462.71	462.95	462.44	462.67	--	--	--	--
MW-60	460.85	456.20	455.15	457.73	456.45	458.26	454.13	456.12	454.51
MW-61	459.61	452.22	451.74	453.15	453.60	453.15	451.28	451.44	451.96
MW-62	464.33	461.38	460.40	461.70	461.23	461.06	459.65	459.09	458.40
MW-63	463.87	461.69	460.43	---	461.26	462.04	459.67	459.73	458.72
MW-65	473.91	464.85	464.38	---	464.75	--	463.44	463.33	463.97
MW-66	462.05	459.29	458.55	460.08	459.71	459.71	457.69	457.76	458.00
MW-67	459.01	458.30	457.65	458.92	458.05	458.51	456.25	456.37	456.90
SB-64			0.00	#N/A	#N/A	#N/A	#N/A		
MW-68	469.81	--	464.33	465.47	464.66	464.53	463.48	463.14	464.01
MW-70	471.53	--	464.40	465.44	464.69	464.60	463.44	463.26	463.97
MW-71	471.35	--	464.41	465.46	464.81	464.62	463.46	463.25	465.00
RW-69	471.25	--	464.42	465.45	464.80	464.62	463.44	463.24	463.97

NOTES:

ft = feet

AMSL = above mean sea level

BTOP = below top of pipe

Co-ordinates provided by EDM Consultants, Inc.

Elevations are taken from Table 3-1, "Draft Report, Remedial Investigation, North Side Ground Water", Malcolm Pirnie, Inc., with the exceptions of ITMW-4 and MW-22 through MW-26 (EDM Consultants, Inc.) and MW-27 through MW-30 (Philip J. Leraris, P.E., L.S.).

* = Depth to water measurements for MW-24 through MW-26 were taken on 25 February 1999.

TOC for ITMW-2 estimated pending re-survey.

TABLE 2

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	ITMW-13 DUP-									
		ITMW-1	ITMW-10	ITMW-11	ITMW-12	102711	ITMW-13	ITMW-14	ITMW-15	ITMW-16	ITMW-17
VOCs by SW-846 8260B		10/27/2011	10/25/2011	10/26/2011	10/26/2011	10/27/2011	10/27/2011	10/27/2011	10/26/2011	10/27/2011	10/26/2011
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		0.0019 J	ND (0.005)	0.0032 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	0.0045 J	0.0081	0.0026 J	ND (0.005)	ND (0.005)	ND (0.005)	0.0023 J	ND (0.005)	0.008
1,2-Dichloroethene, Total		0.0082 J	0.039	0.31	0.23	0.04	0.041	0.011	0.074	ND (0.01)	0.098
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	0.0025 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0012 J
cis-1,2-Dichloroethene		0.0082	0.039	0.31	0.23	0.04	0.041	0.011	0.074	ND (0.005)	0.098
Methylene Chloride		ND (0.01)	ND (0.01)	0.004 J B	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	0.009	ND (0.005)	ND (0.005)	ND (0.005)	0.028	ND (0.005)	ND (0.005)	0.0014 J
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		0.017	0.094	8.8	1.6	0.064	0.065	0.0063	1.1	ND (0.005)	4.5
Vinyl chloride		ND (0.005)	0.0025 J	0.016	0.0018 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C											
Chloride		180	130	40	32	NA	30	20	40	60	350
EP Method 4500-No3B											
Nitrogen, Nitrate		0.54	8.82	0.269	0.51	NA	0.796	0.57	0.113	1.915	1.128
EPA Method 3010A / 6010C											
Potassium		1.5	ND (1)	ND (1)	ND (1)	NA	ND (1)	ND (1)	1.4	3.2	1.1
EPA Method 4500-E											
Sulfates		22	40	18	17	NA	7.6	7.5	2.6	12	11
Hach DR820 Colorimeter											
Ferrous Iron		0.01		0.1	0.28	NA	ND	0.02	0.38		ND
SM 3500-Fe B											
Ferrous Iron			ND (0.007)			NA				ND (0.007)	

NOTES:

1. Sample results are reported in mg/L.
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3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 2 (Cont'd)

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents <i>VOCs by SW-846 8260B</i>	Sample ID:	ITMW-20 DUP-									ITMW-6 DUP-
	Sample Date:	ITMW-18 10/26/2011	ITMW-19 10/26/2011	ITMW-2 10/26/2011	102611 10/26/2011	ITMW-20 10/26/2011	ITMW-21 10/25/2011	ITMW-3 10/27/2011	ITMW-4 10/25/2011	ITMW-5 10/25/2011	102511 10/25/2011
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0028 J	0.0043 J
1,1-Dichloroethene		0.035	0.026	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0053	ND (0.005)
1,2-Dichloroethene, Total		0.29	0.12	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0051 J	0.035	0.0027 J
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	0.00072 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0016 J	ND (0.005)	ND (0.005)
Chloroform		0.0019 J	0.0053	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		0.29	0.12	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0051	0.035	0.0027 J
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.004 J	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		0.0021 J	0.0041 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.05)	0.00095 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		8.5	17	ND (0.005)	ND (0.005)	ND (0.005)	0.011	0.0041 J	0.0048 J	0.15	ND (0.005)
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C											
Chloride		115	275	18	NA	100	580	20	100	144	NA
EP Method 4500-No3B											
Nitrogen, Nitrate		2.586	2.159	1.091	NA	1.432	0.749	1.307	6.73	8.16	NA
EPA Method 3010A / 6010C											
Potassium		ND (1)	ND (1)	ND (1)	NA	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	NA
EPA Method 4500-E											
Sulfates		7.2	12	18	NA	43	6.9	25	2.1	25	NA
Hach DR820 Colorimeter											
Ferrous Iron		0.38	ND	0.16	NA	ND		0.03			NA
SM 3500-Fe B											
Ferrous Iron					NA		ND (0.007)		ND (0.007)	ND (0.007)	NA

NOTES:

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3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
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TABLE 2 (Cont'd)

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID:	ITMW-6	ITMW-7	ITMW-9	IW-72	IW-73	IW-74	IW-75	IW-76	IW-77	IW-78	IW-79
<i>VOCs by SW-846 8260B</i>	Sample Date:	10/25/2011	10/25/2011	10/25/2011	10/24/2011	10/25/2011	10/25/2011	10/25/2011	10/25/2011	10/25/2011	10/25/2011	10/25/2011
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		0.0046 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	0.0033 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.002 J	ND (0.005)	0.0012 J
1,2-Dichloroethene, Total		0.0024 J	0.026	0.057	ND (0.01)	0.0049 J	0.0031 J	ND (0.01)	0.0022 J	0.032	0.012	0.013
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	0.042	0.0073 J	0.014	0.085	0.009 J	ND (0.01)	ND (0.01)	0.011
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.022	ND (0.005)	ND (0.005)	0.0098	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		0.0024 J	0.026	0.057	ND (0.005)	0.0049 J	0.0031 J	ND (0.005)	0.0022 J	0.032	0.012	0.013
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		ND (0.005)	0.099	0.09	ND (0.005)	0.25	0.15	ND (0.005)	0.13	1.4	0.35	0.57
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		130	200	70	NA	NA	400	NA	NA	300	400	NA
EP Method 4500-No3B												
Nitrogen, Nitrate		17.29	2.3	16.53	NA	NA	1.123	NA	NA	5.3	0.906	NA
EPA Method 3010A / 6010C												
Potassium		ND (1)	ND (1)	ND (1)	NA	NA	5	NA	NA	2.6	3.4	NA
EPA Method 4500-E												
Sulfates		11	13	59	NA	NA	7.7	NA	NA	2.8	6.9	NA
Hach DR820 Colorimeter												
Ferrous Iron			0		NA	0.1		NA	NA		0.39	NA
SM 3500-Fe B												
Ferrous Iron		ND (0.007)		ND (0.007)	NA		ND (0.007)	NA	NA	ND (0.007)		NA

NOTES:

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2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
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TABLE 2 (Cont'd)

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	IW-80	MW-22	MW-23	MW-24		MW-25	MW-26	MW-27	MW-28	MW-29	MW-30
		10/25/2011	10/27/2011	10/27/2011	DUP-01 10/27/2011	MW-24 10/27/2011	10/26/2011	10/26/2011	10/27/2011	10/27/2011	10/25/2011	10/26/2011
VOcs by SW-846 8260B												
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.21 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethene, Total		ND (0.01)	ND (0.01)	ND (0.01)	0.0014 J	0.0019 J	2.1	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.016
Acetone		0.01	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.5)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	0.0037 J	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	0.0014 J	0.0019 J	2.1	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.016
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.5)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.5)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		0.0097	0.0021 J	0.041	0.17	0.17	120	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.057
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		NA	72	380	NA	380	600	195	25	40	100	290
EP Method 4500-No3B												
Nitrogen, Nitrate		NA	0.571	1.102	NA	1.407	0.474	2.092	1.51	0.886	2.401	1.943
EPA Method 3010A / 6010C												
Potassium		NA	ND (1)	ND (1)	NA	3.7	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
EPA Method 4500-E												
Sulfates		NA	12	10	NA	8.6	5.6	13	7.7	40	26	8.6
Hach DR820 Colorimeter												
Ferrous Iron		ND	0.12		NA		0.29	ND				ND
SM 3500-Fe B												
Ferrous Iron				ND (0.007)	NA	ND (0.007)			ND (0.007)	ND (0.007)	ND (0.007)	

NOTES:

1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 2 (Cont'd)

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	MW-31 10/26/2011	MW-32 10/26/2011	MW-33 10/26/2011	MW-34 10/26/2011	MW-35R 10/25/2011	MW-36 10/26/2011	MW-37 10/26/2011	MW-38 10/26/2011	MW-39 10/26/2011	MW-40 10/26/2011	MW-41 10/25/2011
VOCs by SW-846 8260B												
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0047 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.011	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.031	0.031	ND (0.005)	ND (0.005)	0.0028 J
1,2-Dichloroethene, Total		ND (0.01)	ND (0.01)	0.016	ND (0.01)	0.012	ND (0.01)	9.7	0.87	ND (0.01)	ND (0.01)	0.018
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0068 J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.021	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		ND (0.005)	ND (0.005)	0.016	ND (0.005)	0.012	ND (0.005)	9.7	0.87	ND (0.005)	ND (0.005)	0.018
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.19 B	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0023 J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0019 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.024	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.032	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	0.0045 J	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		ND (0.005)	0.073	1	0.056	0.28	ND (0.005)	57	0.58	ND (0.005)	ND (0.005)	0.42
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	2.5	1.1	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0042 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		140	370	180	300	380	300	30	40	350	260	200
EP Method 4500-No3B												
Nitrogen, Nitrate		0.45	2.06	1.88	6.79	3.91	1.38	0.117	0.119	3.07	15.38	1.115
EPA Method 3010A / 6010C												
Potassium		ND (1)	ND (1)	5.4	ND (1)	1.1	ND (1)	2	37	ND (1)	ND (1)	5.8
EPA Method 4500-E												
Sulfates		37	7.3	5.4	4.8	6.4	7.5	18	12	1.7	3.7	3.5
Hach DR820 Colorimeter												
Ferrous Iron			ND	ND			NA	1.29	3.3			
SM 3500-Fe B												
Ferrous Iron		ND (0.007)			ND (0.007)	ND (0.007)	NA			ND (0.007)	ND (0.007)	ND (0.007)

NOTES:

1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 2 (Cont'd)

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	MW-46 10/26/2011	MW-50 10/25/2011	MW-55 10/25/2011	MW-56 10/25/2011	MW-57 10/25/2011	MW-60 10/25/2011	MW-61 10/25/2011	MW-62 10/25/2011	MW-63 10/25/2011	MW-65 10/25/2011	MW-66 10/26/2011
VOCs by SW-846 8260B												
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethene, Total		0.01	ND (0.01)	ND (0.01)	0.011	0.002 J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.01	ND (0.01)
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		0.01	ND (0.005)	ND (0.005)	0.011	0.002 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.01	ND (0.005)
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		0.46	ND (0.005)	0.007	0.15	0.059	ND (0.005)	ND (0.005)	0.0019 J	0.0098	0.31	0.0018 J
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	0.0019 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		290	250	350	220	190	100	65	200	200	400	330
EP Method 4500-No3B												
Nitrogen, Nitrate		18.53	0.246	0.339	0.527	0.525	0.244	0.733	0.894	0.553	0.778	4.3
EPA Method 3010A / 6010C												
Potassium		ND (1)	ND (1)	1.2	ND (1)	ND (1)	ND (1)	1.3	ND (1)	ND (1)	ND (1)	ND (1)
EPA Method 4500-E												
Sulfates		0.65	1.9	0.83	7.8	3.1	24	1.3	3.7	6.2	3.7	10
Hach DR820 Colorimeter												
Ferrous Iron												
SM 3500-Fe B												
Ferrous Iron		ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)

NOTES:

1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 2 (Cont'd)

Analytical and Geochemical Data - Fall 2011

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	MW-67 10/26/2011	MW-68 10/26/2011	MW-70 10/26/2011	MW-71 10/26/2011	RW-69 10/26/2011
VOCs by SW-846 8260B						
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethene, Total		ND (0.01)	ND (0.01)	0.0077 J	0.0027 J	0.0057 J
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		ND (0.005)	ND (0.005)	0.0077	0.0027 J	0.0057
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		ND (0.005)	ND (0.005)	0.32	0.13	0.21
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C						
Chloride		60	340	340	345	340
EP Method 4500-No3B						
Nitrogen, Nitrate		6.83	0.437	0.537	0.264	0.612
EPA Method 3010A / 6010C						
Potassium		2.3	ND (1)	ND (1)	ND (1)	1
EPA Method 4500-E						
Sulfates		20	1.6	1.5	6.4	4
Hach DR820 Colorimeter						
Ferrous Iron			ND	ND	1.74	ND
SM 3500-Fe B						
Ferrous Iron		ND (0.007)				

NOTES:

1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 3

Analytical and Geochemical Data - Spring 2012

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	ITMW-1 4/18/2012	ITMW-13 4/19/2012	ITMW-14 4/19/2012	ITMW-16 4/18/2012	ITMW-17 4/19/2012	ITMW-18 4/19/2012	ITMW-19 DUP-02 4/19/2012	ITMW-19 4/19/2012	ITMW-2 4/17/2012	ITMW-20 4/18/2012	ITMW-21 4/17/2012
VOCs by SW- 846 8260B												
1,1,1-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0012 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0053	0.034	0.015	0.017	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethene, Total		0.013	0.063	0.016	ND (0.01)	0.11	0.36	0.11	0.11	ND (0.01)	ND (0.01)	ND (0.01)
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	0.00066 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0012 J	0.0026 J	ND	ND	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		0.013	0.063	0.016	ND (0.005)	0.11	0.36	0.11	0.11	ND (0.005)	ND (0.005)	ND (0.005)
Ethylbenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	0.029	ND (0.005)	ND (0.005)	0.003 J	0.0033 J	0.0031 J	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	0.0012 J	0.00089 J	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		0.032	0.097	0.0076	ND (0.005)	4.7	9.8	15	18	ND (0.005)	ND (0.005)	0.03
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0029 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		254	34	11	24	237	120	NA	300	140	100	550
EP Method 4500-No3B												
Nitrogen, Nitrate		4.24	4.69	0.681	1.12	0.662	3.35	NA	2.004	4.63	1.75	1.813
EPA Method 3111-B												
Potassium		5.4	ND (1)	ND (1)	3.8	ND (1)	ND (1)	NA	1.3	ND (1)	1.1	ND (1)
EPA Method 4500-E												
Sulfates		16	8.1	12	9.6	4	6.8	NA	6.3	18	21	3.8
Hach DR820 Colorimeter												
Ferrous Iron		ND	0.06	0.07	3.25	ND	0.05	NA	0.03	ND	0.01	ND

NOTES:

1. Sample results are reported in mg/L.
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3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 3 (Cont'd)

Analytical and Geochemical Data - Spring 2012

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	ITMW-3 4/17/2012	ITMW-5 4/17/2012	ITMW-6 4/17/2012	ITMW-7 4/18/2012	ITMW-9 4/17/2012	IW-72 4/17/2012	IW-73 4/17/2012	IW-74 4/17/2012	IW-75 4/17/2012	IW-76 4/17/2012	IW-77 DUP-01 4/17/2012
VOCs by SW- 846 8260B												
1,1,1-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	0.0022 J	0.0057	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	0.0057	ND (0.005)	ND (0.005)	0.011	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0012 J
1,2-Dichloroethene, Total		ND (0.01)	0.026	0.0029 J	0.02	0.05	ND (0.01)	0.0058 J	0.0024 J	ND (0.01)	0.0089 J	0.02
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.032	ND (0.01)	ND (0.01)	0.083	0.0091 J	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.024	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		ND (0.005)	0.026	0.0029 J	0.02	0.05	ND (0.005)	0.0058	0.0024 J	ND (0.005)	0.0089	0.02
Ethylbenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		ND (0.005)	0.29	ND (0.005)	0.1	0.15	0.0038 J	0.18	0.13	0.0029 J	0.4	0.52
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0025 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		20	120	11.21	300	100	NA	140	166	NA	NA	NA
EP Method 4500-No3B												
Nitrogen, Nitrate		5.35	8.24	11.21	3.32	12.33	NA	0.735	0.618	NA	NA	NA
EPA Method 3111-B												
Potassium		ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	NA	4.6	3.8	NA	NA	NA
EPA Method 4500-E												
Sulfates		24	28	97	13	32	NA	6.3	3.8	NA	NA	NA
Hach DR820 Colorimeter												
Ferrous Iron		ND	0.01	0.05	0.03	0.22	NA	3.33	0.16	NA	NA	NA

NOTES:

1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 3 (Cont'd)

Analytical and Geochemical Data - Spring 2012

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID:	IW-77	IW-78	IW-79	IW-80	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28
VOCs by SW- 846 8260B	Sample Date:	4/17/2012	4/18/2012	4/17/2012	4/17/2012	4/18/2012	4/18/2012	4/18/2012	4/17/2012	4/18/2012	4/18/2012	4/19/2012
1,1,1-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0096	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		0.0012 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.031	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethene, Total		0.023	0.0023 J	0.0021 J	0.0022 J	ND (0.01)	ND (0.01)	0.0029 J	0.69	ND (0.01)	ND (0.01)	ND (0.01)
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.00094 J	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		0.023	0.0023 J	0.0021 J	0.0022 J	ND (0.005)	ND (0.005)	0.0029 J	0.69	ND (0.005)	ND (0.005)	ND (0.005)
Ethylbenzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Methylene Chloride		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0067	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.1)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		0.51	0.12	0.43	0.055	ND (0.005)	0.036	0.15	18	ND (0.005)	0.0026 J	ND (0.005)
Vinyl chloride		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.018	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C												
Chloride		130	100	120	100	20	220	265	400	NA	20	35
EP Method 4500-No3B												
Nitrogen, Nitrate		2.82	0.645	2.12	2.76	0.078	1.074	5.63	4.92	NA	1.58	0.79
EPA Method 3111-B												
Potassium		1.3	7.9	3.4	1.3	ND (1)	ND (1)	ND (1)	ND (1)	NA	1.3	ND (1)
EPA Method 4500-E												
Sulfates		6.7	16	10	9.9	15	14	8.1	2.3	NA	11	39
Hach DR820 Colorimeter												
Ferrous Iron		0.11	0.26	0.13	0.07	ND	0.08	0.16	0.04	ND	0.23	1.37

NOTES:

1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

TABLE 3 (Cont'd)

Analytical and Geochemical Data - Spring 2012

Whirlpool Corporation
Fort Smith, Arkansas

Constituents	Sample ID: Sample Date:	MW-29 4/18/2012	MW-30 4/18/2012	MW-37 4/18/2012	MW-40 4/18/2012	MW-46 4/18/2012	MW-70 4/18/2012	MW-71 4/18/2012	RW-69 4/18/2012
VOCs by SW- 846 8260B									
1,1,1-Trichloroethane		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane		ND (0.005)	ND (0.005)	0.0013 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane		ND (0.005)	ND (0.005)	0.018	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene		ND (0.005)	ND (0.005)	0.018	ND (0.005)	0.0015 J	ND (0.005)	0.0015 J	ND (0.005)
1,2-Dichloroethene, Total		ND (0.01)	0.032	5.3	ND (0.01)	0.014	0.011	0.0053 J	0.0036 J
Acetone		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform		ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene		0.0055	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroform		ND (0.005)	ND (0.005)	0.011	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,2-Dichloroethene		ND (0.005)	0.032	5.3	ND (0.005)	0.014	0.011	0.0053	0.0036 J
Ethylbenzene		ND (0.005)	ND (0.005)	0.0015 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Methylene Chloride		ND (0.01)	ND (0.01)	0.19	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
m-Xylene & p-Xylene		ND (0.01)	ND (0.01)	0.0015 J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
o-Xylene		ND (0.005)	ND (0.005)	0.0012 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene		ND (0.005)	ND (0.005)	0.015	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene		ND (0.005)	ND (0.005)	0.038	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene		ND (0.005)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene		ND (0.005)	0.15	29	0.0039 J	0.68	0.33	0.16	0.15
Vinyl chloride		ND (0.005)	ND (0.005)	2.1	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Xylenes, Total		ND (0.005)	ND (0.005)	0.0027 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
EPA Method 4500-C									
Chloride		147	270	15	260	240	320	250	300
EP Method 4500-No3B									
Nitrogen, Nitrate		3.32	2.33	2.28	1.032	2.23	0.198	0.31	0.119
EPA Method 3111-B									
Potassium		ND (1)	ND (1)	3.5	ND (1)	ND (1)	1.5	ND (1)	1.3
EPA Method 4500-E									
Sulfates		60	5.1	13	2.5	0.68	1.3	4.3	6
Hach DR820 Colorimeter									
Ferrous Iron		0.1	0.15	0.21	0.04	0.09	ND	0.46	0.49

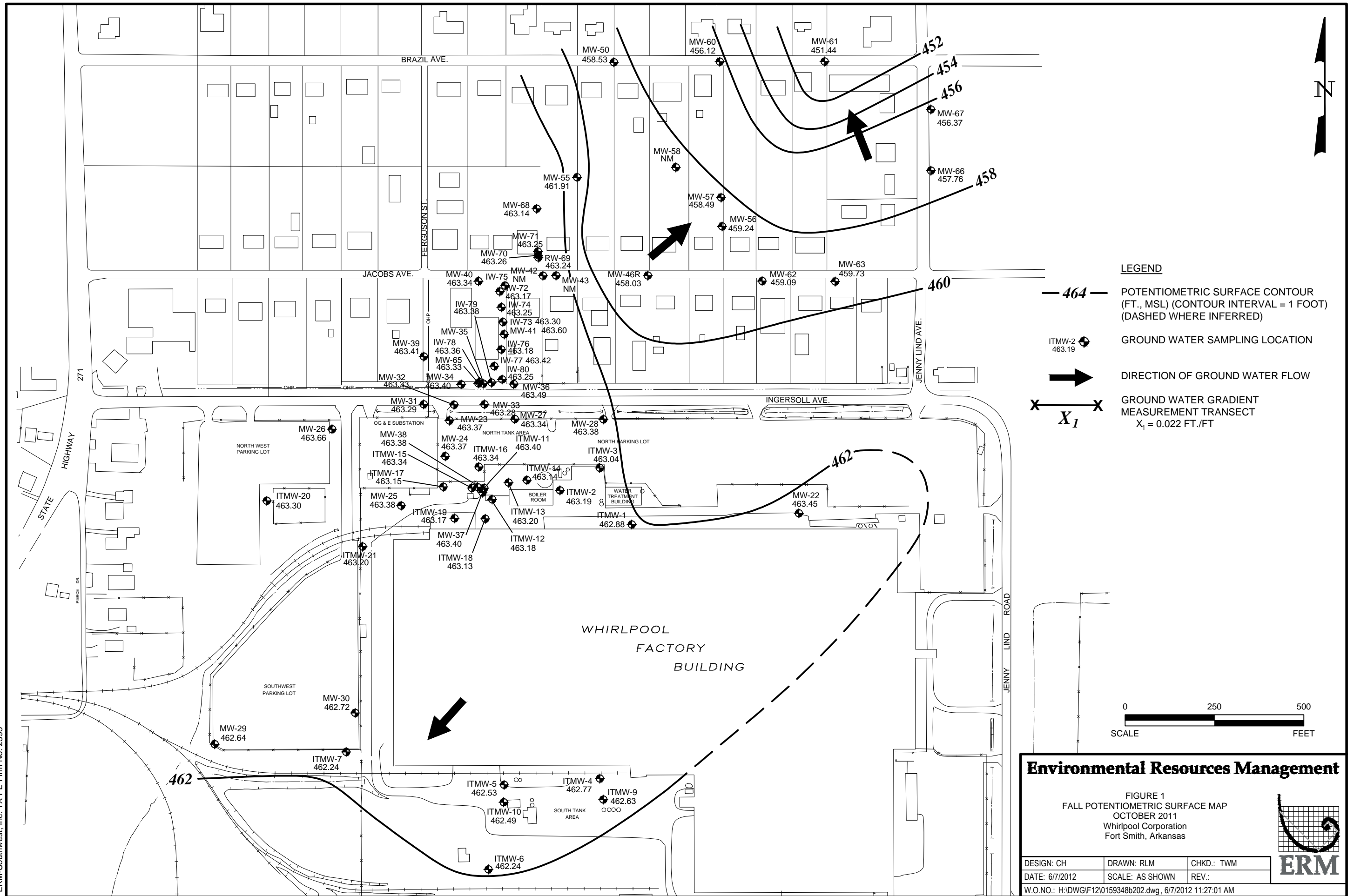
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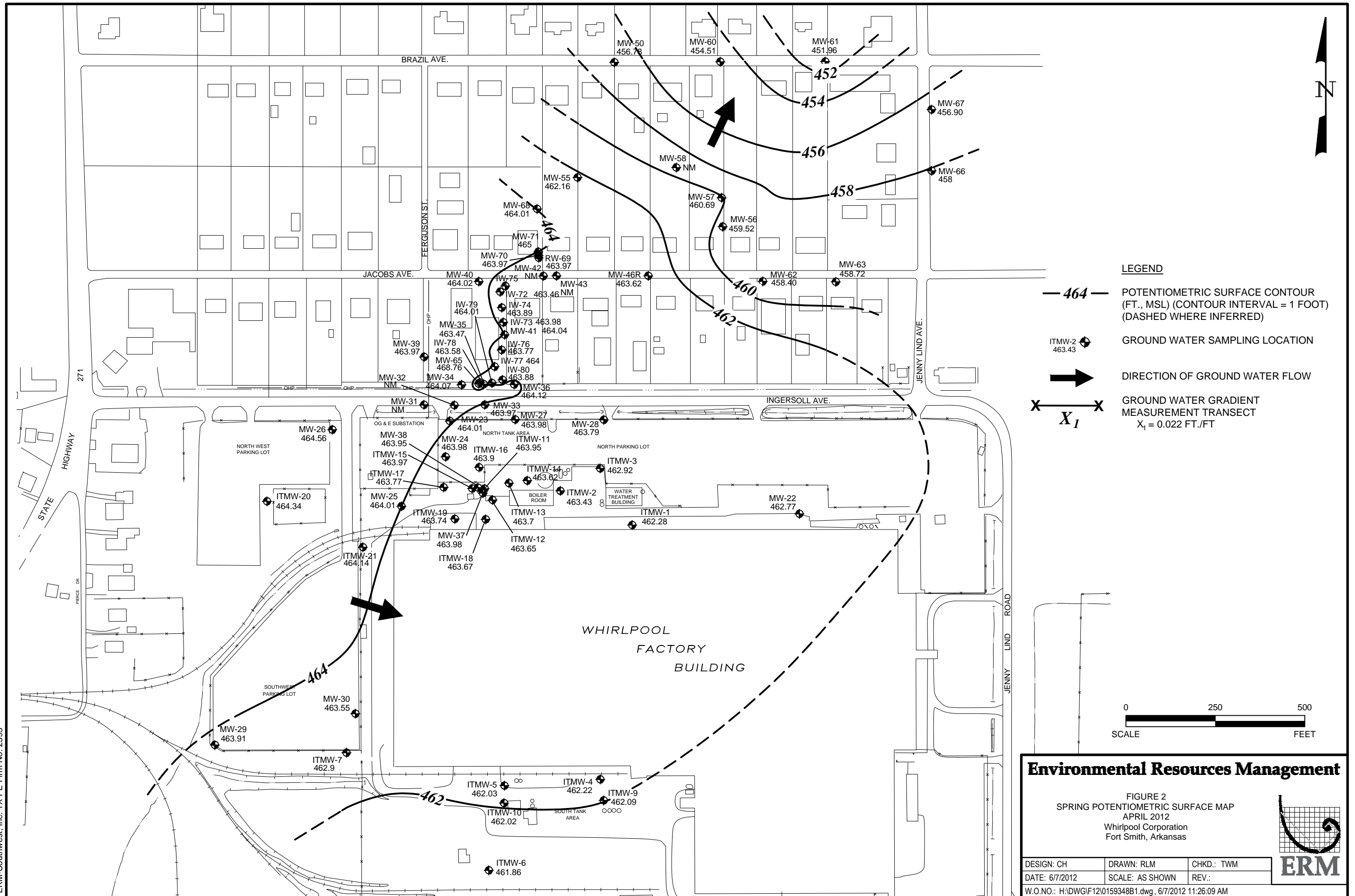
1. Sample results are reported in mg/L.
2. Reported results are those constituents detected at least once above the method detection limit.
3. NA = Not Analyzed
4. ND(0.0014) = Result is Not Detected at the associated method quantitation limit.
5. J = The analyte was detected and identified with an estimated concentration.

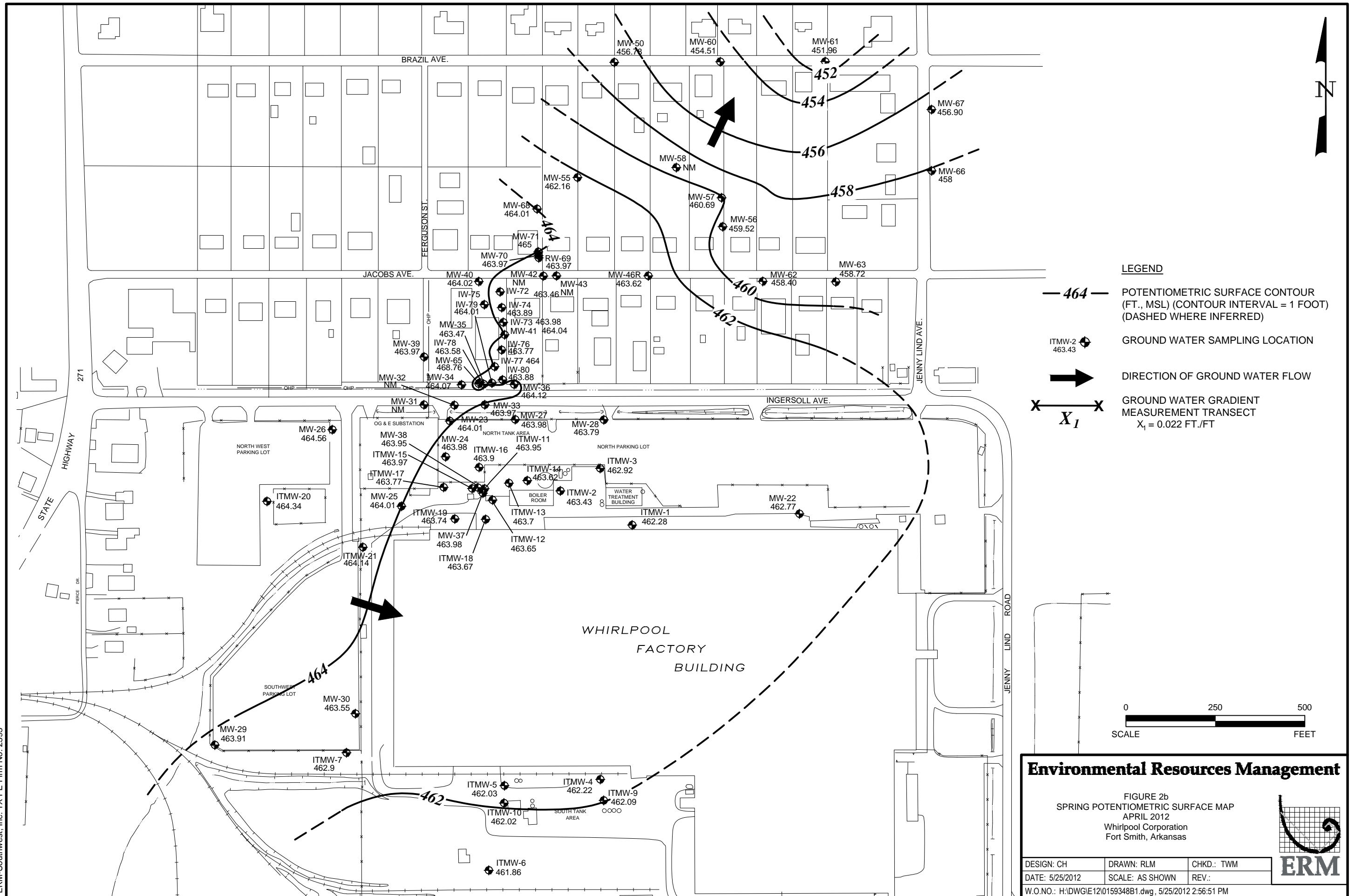
Figures
Attachment 2

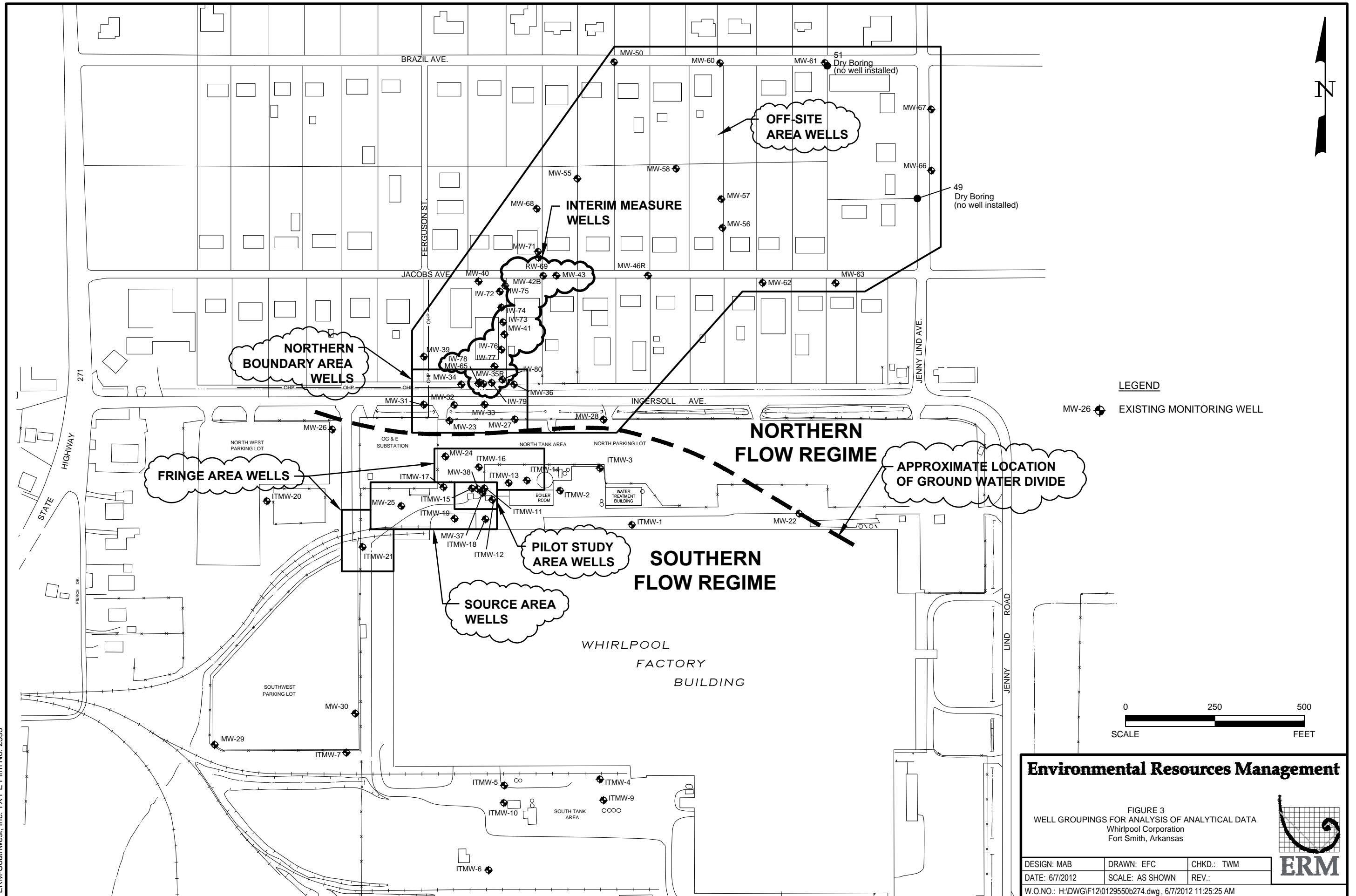
June 28, 2012
Project No. 0159348

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

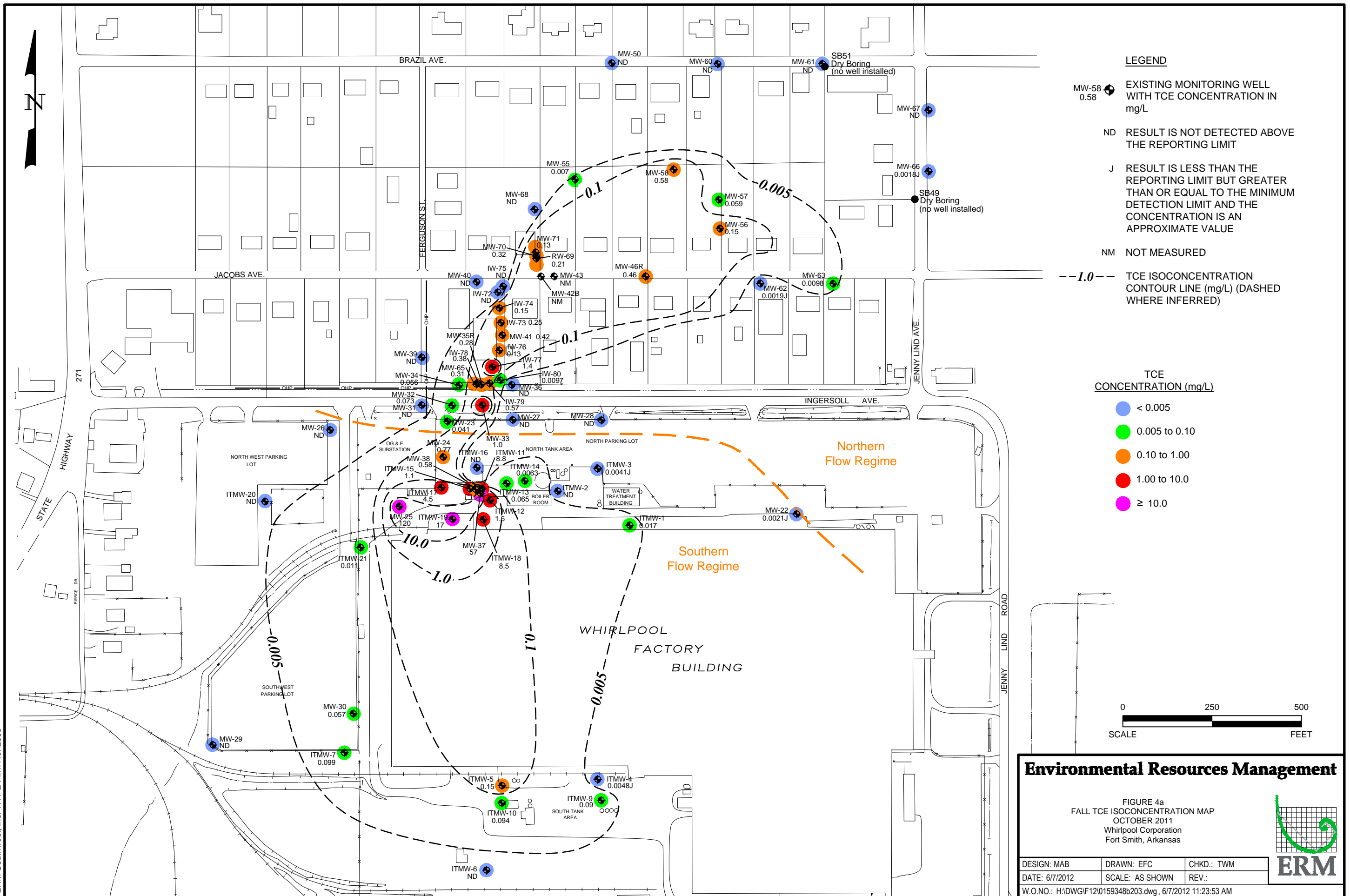




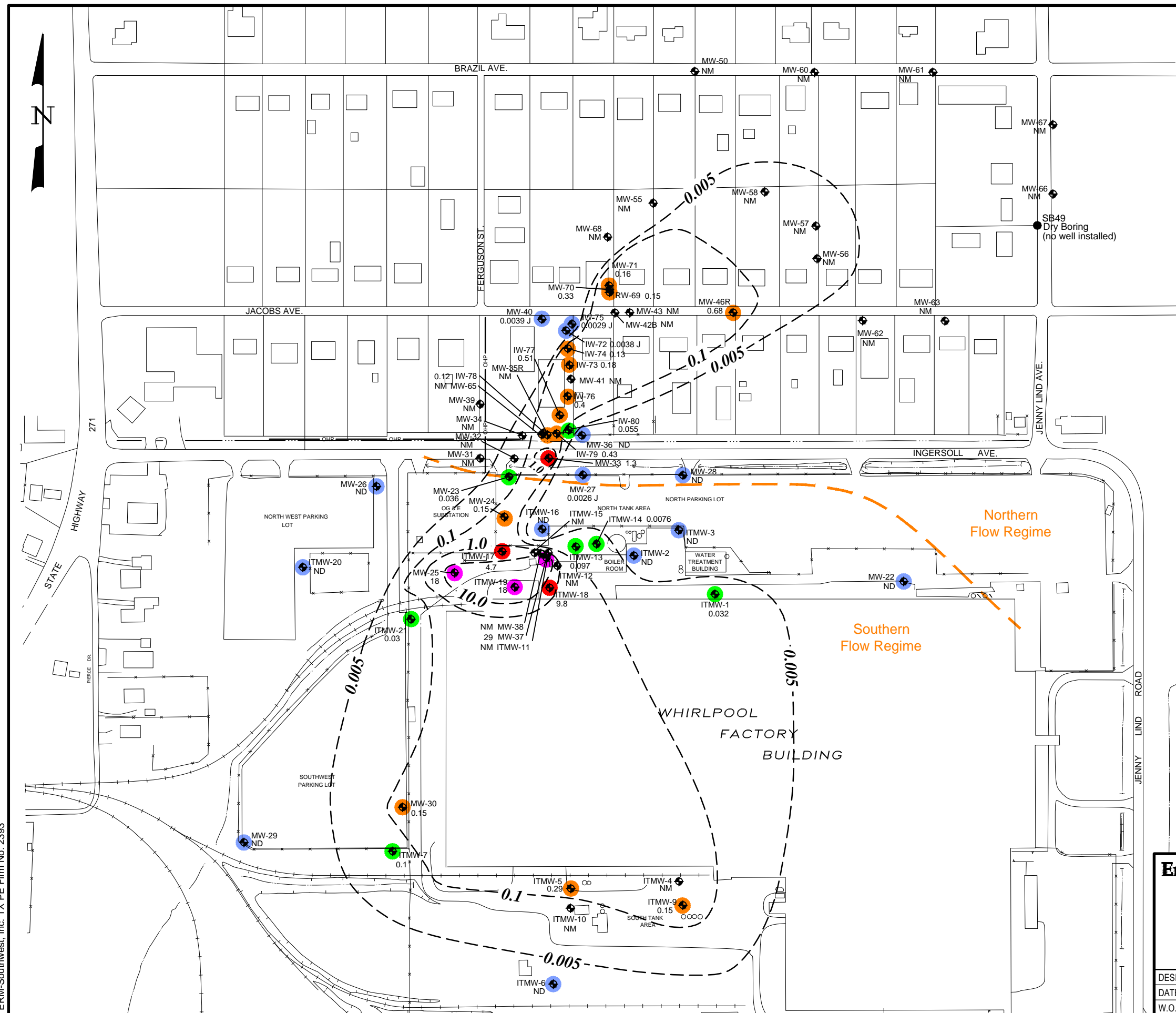




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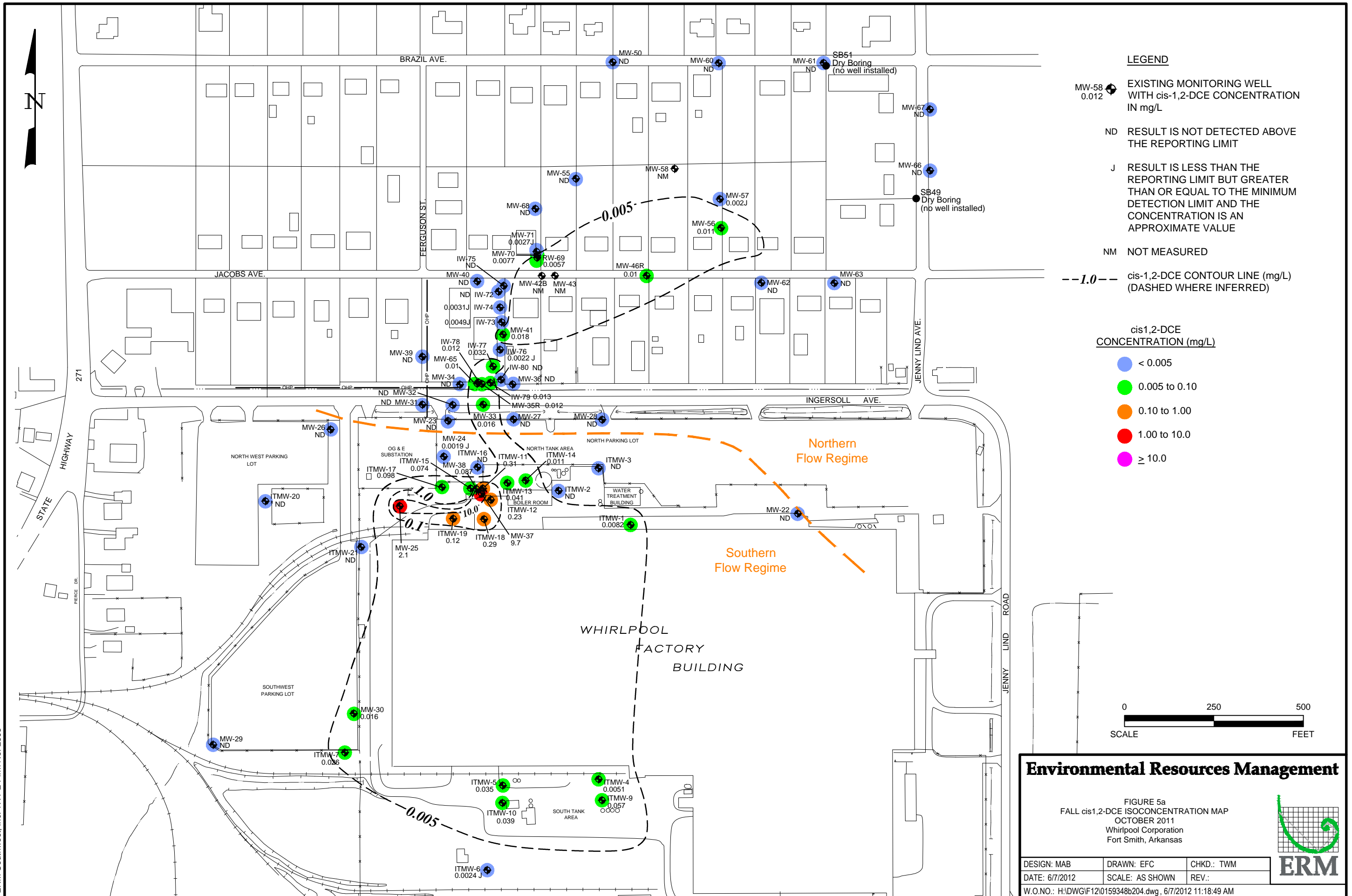


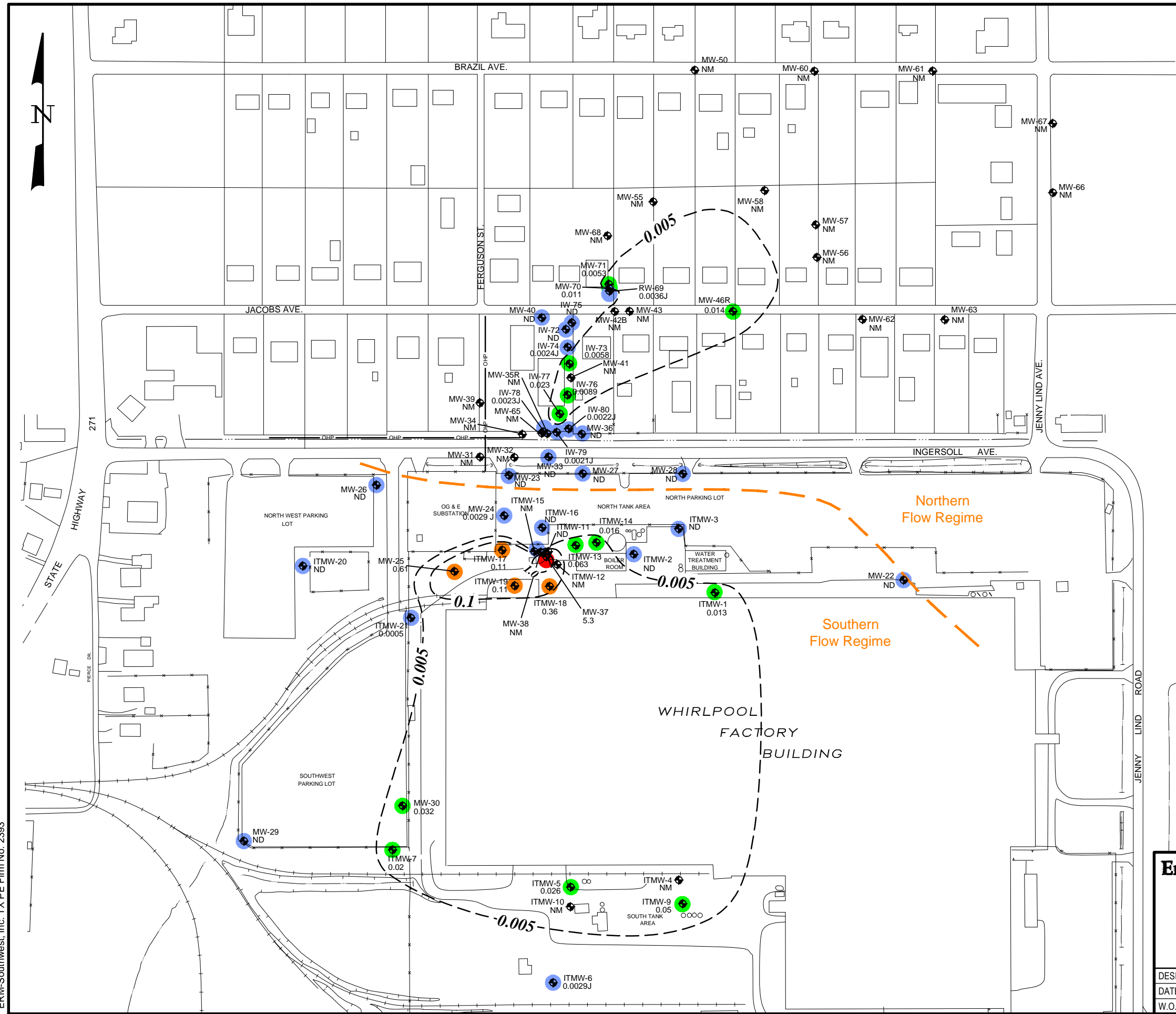
Environmental Resources Management

FIGURE 4b
SPRING TCE ISOCONCENTRATION MAP
APRIL 2012
Whirlpool Corporation
Fort Smith, Arkansas

DESIGN: MAB	DRAWN: EFC	CHKD.: TWB
DATE: 6/7/2012	SCALE: AS SHOWN	REV.: .
W.O.NO.: H:\DWG\F12\0159348b206.dwg, 6/7/2012 11:20:55 AM		







- LEGEND**
- MW-58 0.012 EXISTING MONITORING WELL WITH cis-1,2-DCE CONCENTRATION IN mg/L
- ND RESULT IS NOT DETECTED ABOVE THE REPORTING LIMIT
- J RESULT IS LESS THAN THE REPORTING LIMIT BUT GREATER THAN OR EQUAL TO THE MINIMUM DETECTION LIMIT AND THE CONCENTRATION IS AN APPROXIMATE VALUE
- NM NOT MEASURED
- 1.0--- cis-1,2-DCE CONTOUR LINE (mg/L) (DASHED WHERE INFERRED)
- cis1,2-DCE CONCENTRATION (mg/L)
- < 0.005
 - 0.005 to 0.10
 - 0.10 to 1.00
 - 1.00 to 10.0
 - ≥ 10.0



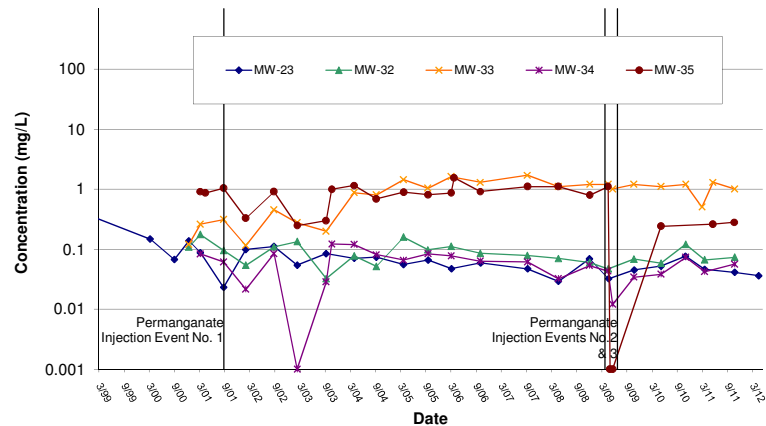
Environmental Resources Management

FIGURE 5b
SPRING cis1,2-DCE ISOCONCENTRATION MAP
APRIL 2012
Whirlpool Corporation
Fort Smith, Arkansas

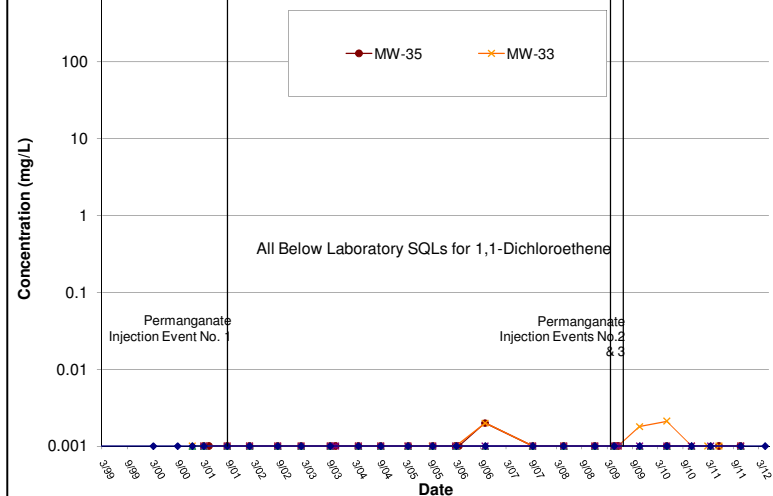
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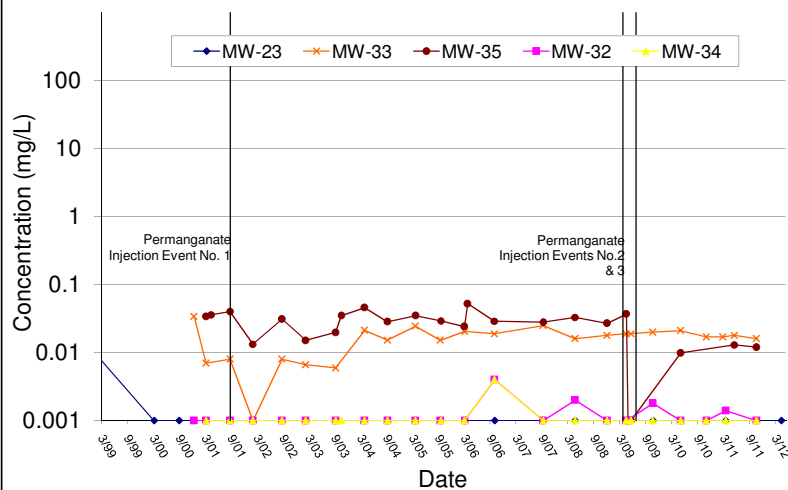
Trichloroethene - North Boundary Wells



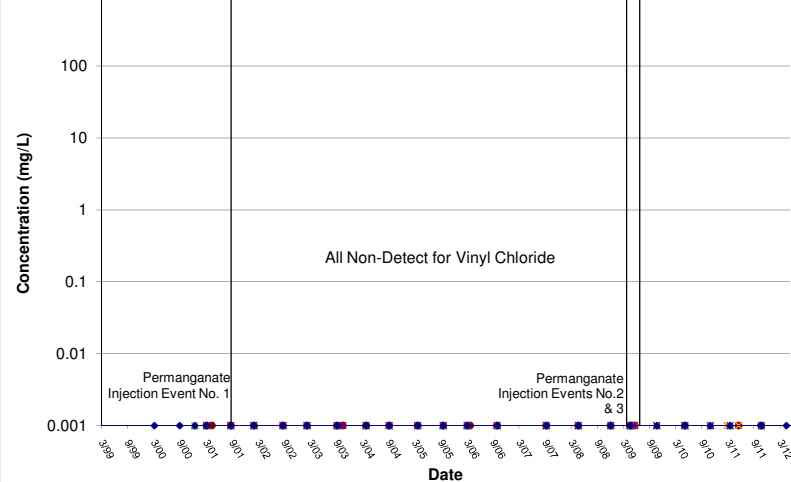
1,1-Dichloroethene - North Boundary Wells



cis-1,2-Dichloroethene - North Boundary Wells



Vinyl Chloride - North Boundary Wells



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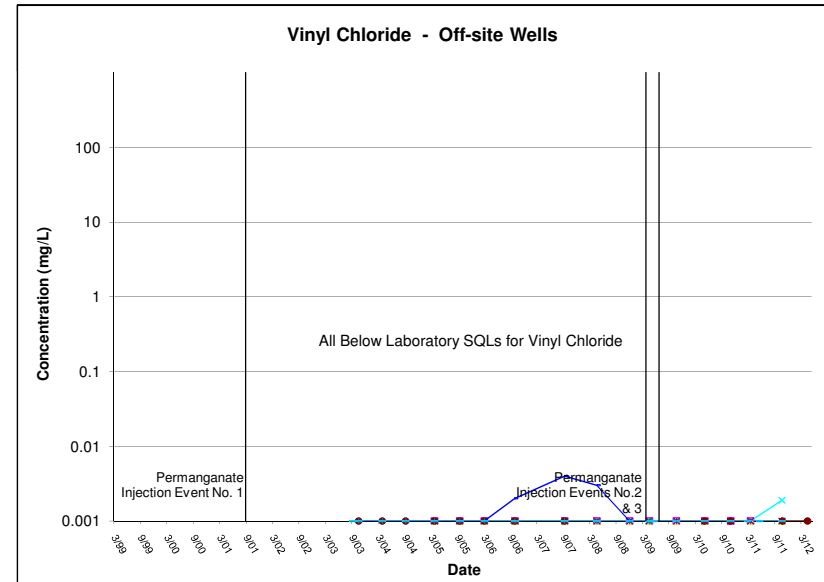
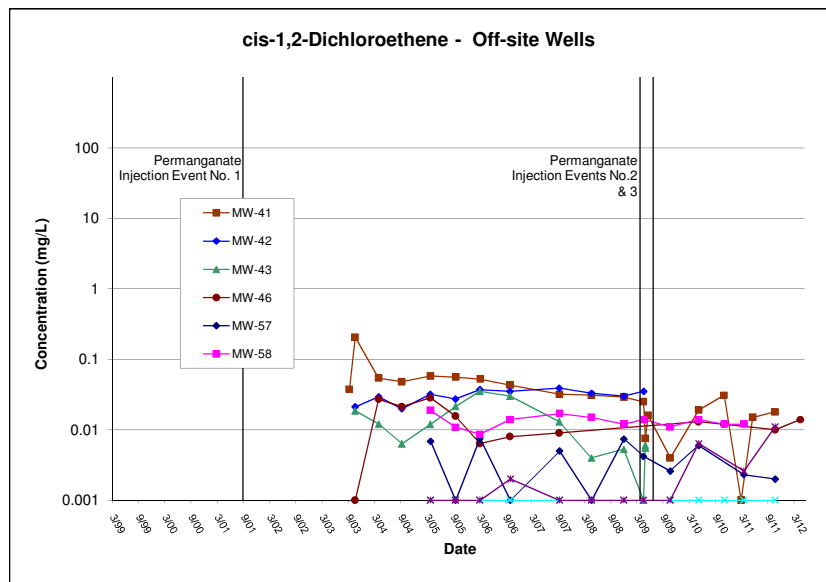
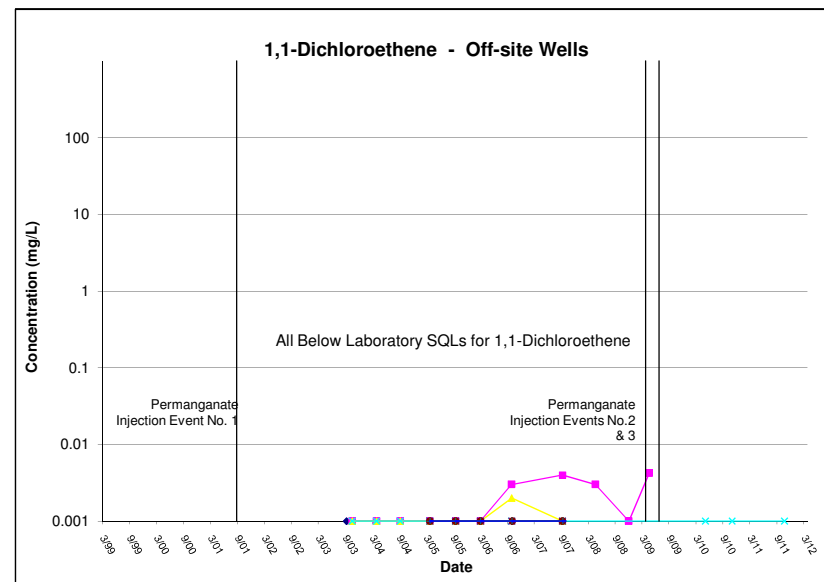
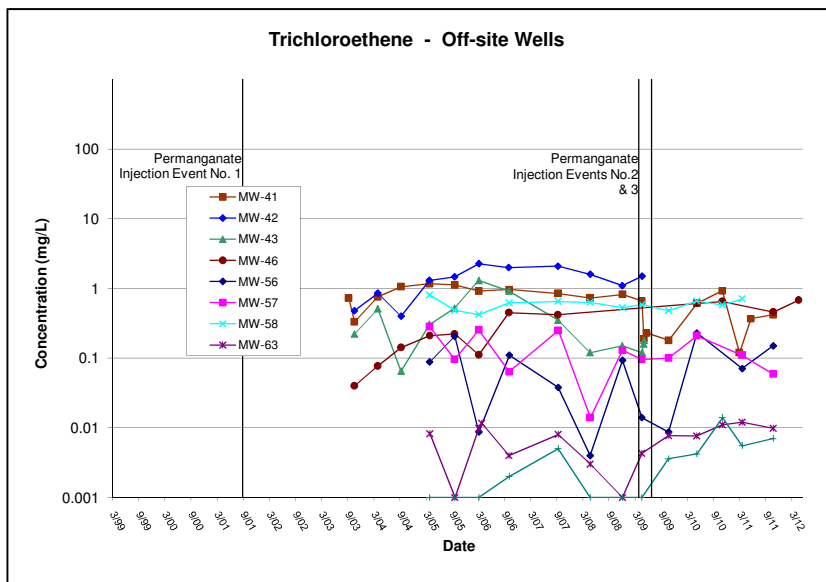
HOUSTON-NEW ORLEANS-AUSTIN-DALLAS-BEAUMONT-BATON ROUGE

FIGURE 6
North Boundary Wells Concentration Trends

Whirlpool Corporation
Fort Smith, Arkansas

DESIGN: TWM	CHKD:	6/13/2012	REV:
DRAWN: ESB	SCALE: AS SHOWN	W.O. NO: 0129560	





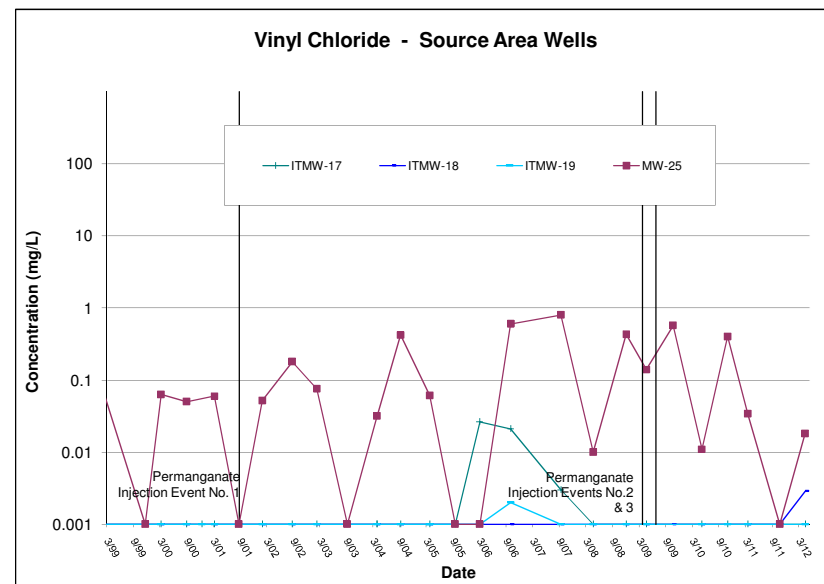
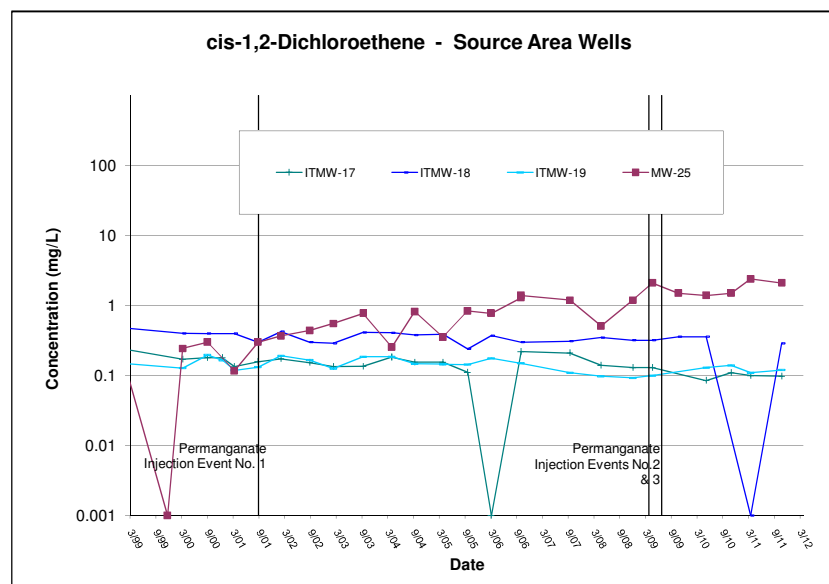
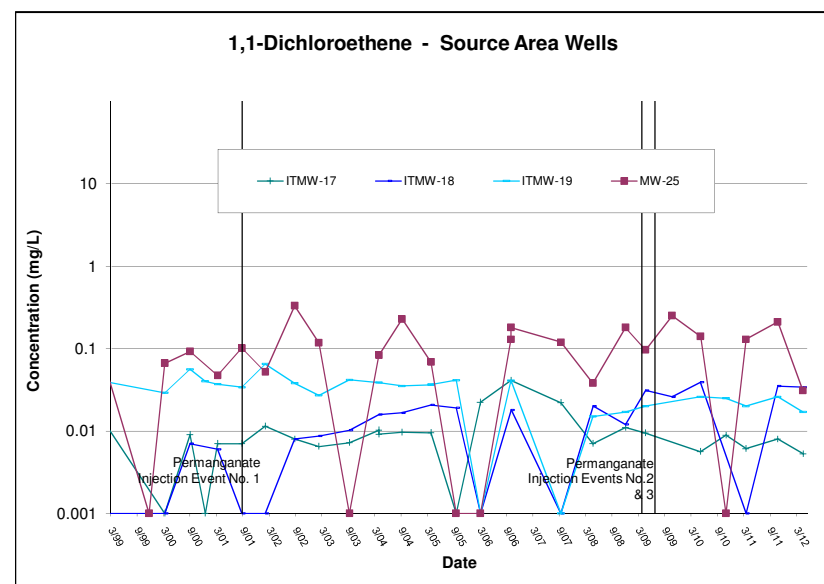
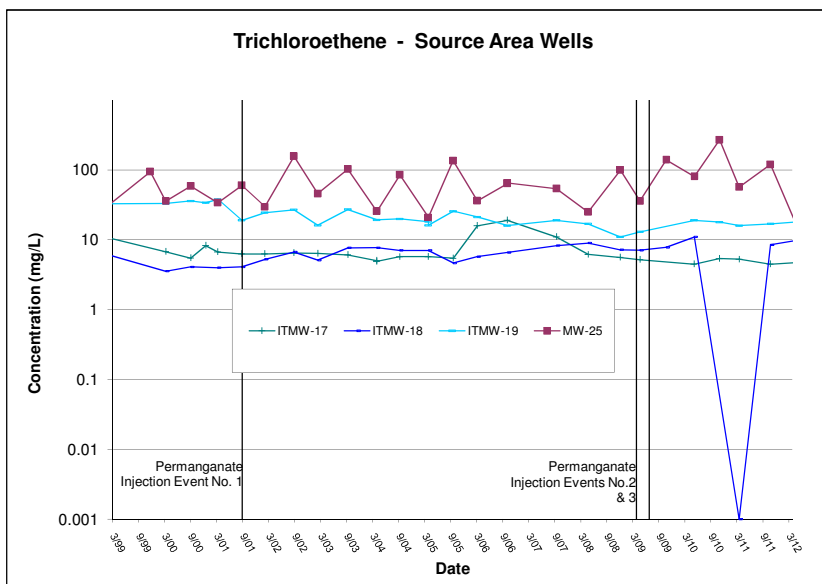
ERM-Southwest, Inc.
HOUSTON-NEW ORLEANS-AUSTIN-DALLAS-BEALMONT-BATON ROUGE

FIGURE 7
Off-Site Wells Concentration Trends

Whirlpool Corporation
Fort Smith, Arkansas

DESIGN: TWB	CHKD:	6/13/2012	REV:
DRAWN: ESB	SCALE: AS SHOWN	W.O. NO: 0129550	





ERM-Southwest, Inc.

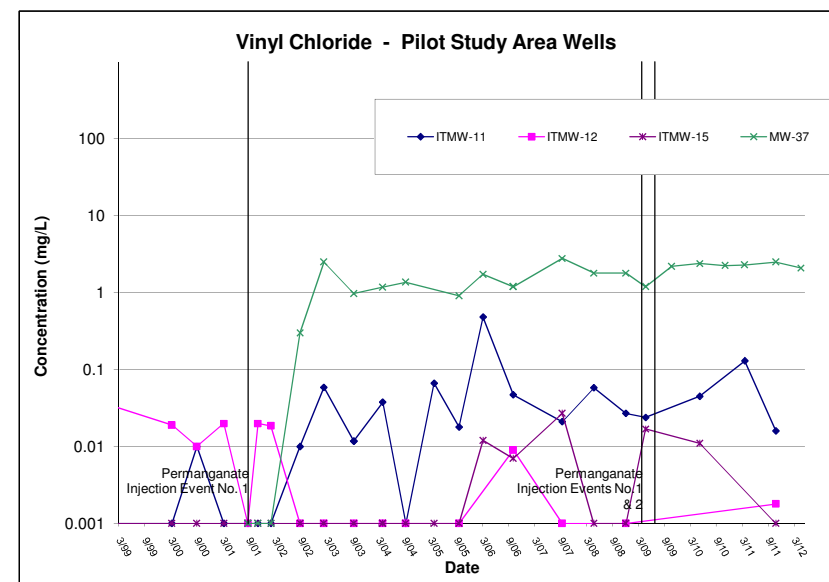
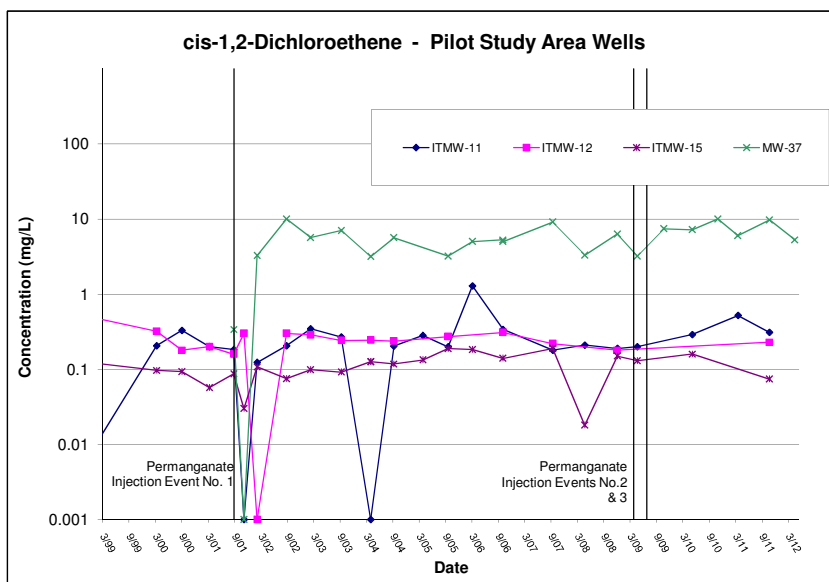
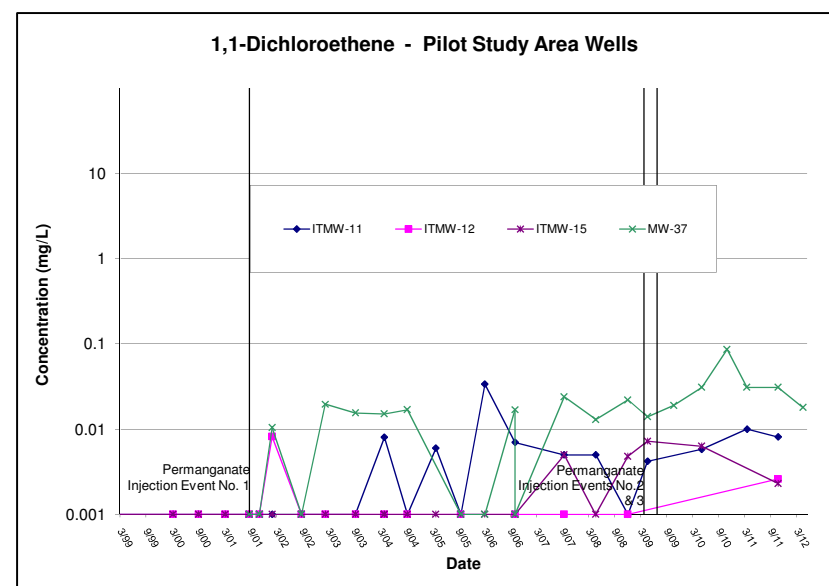
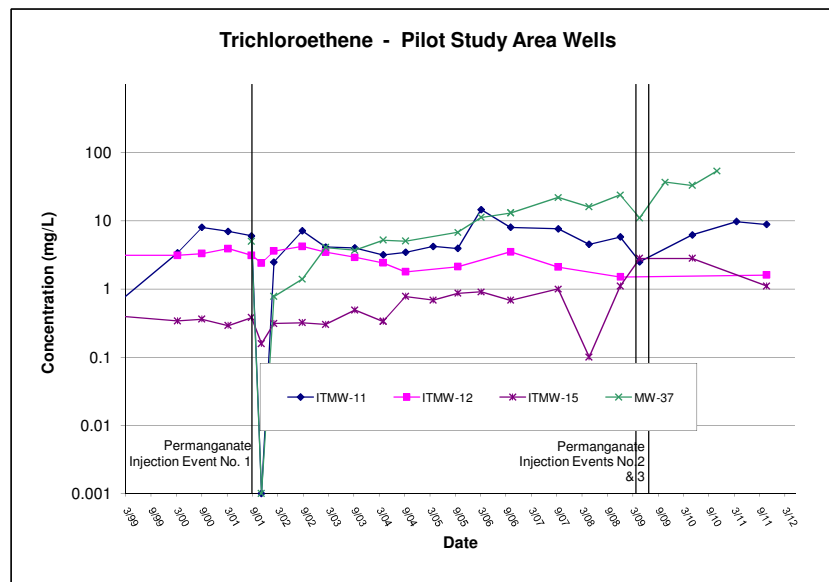
HOUSTON-NEW ORLEANS-AUSTIN-DALLAS-BEAUMONT-BATON ROUGE

FIGURE 8
Source Area Wells Concentration Trends

Whirlpool Corporation
Fort Smith, Arkansas

DESIGN: TWM	CHKD:	6/13/2012	REV:
DRAWN: ESB	SCALE: AS SHOWN	W.O. NO: 0129550	





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HOUSTON-NEW ORLEANS-AUSTIN-DALLAS-BEAUMONT-BATON ROUGE

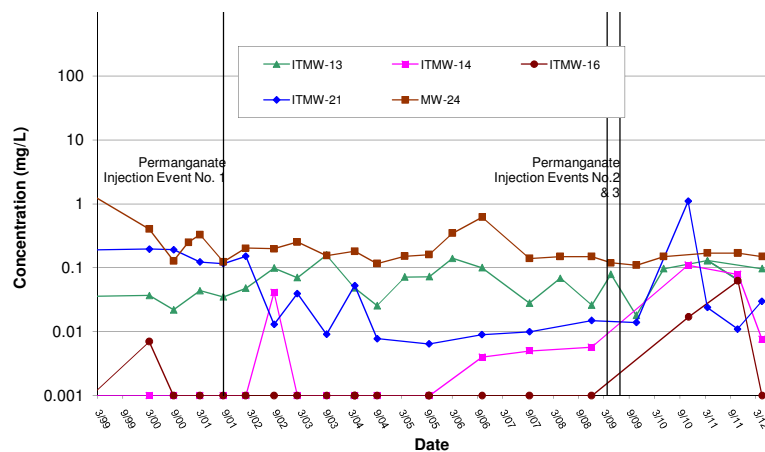
FIGURE 9
Pilot Study Area Concentration Trends

Whirlpool Corporation
Fort Smith, Arkansas

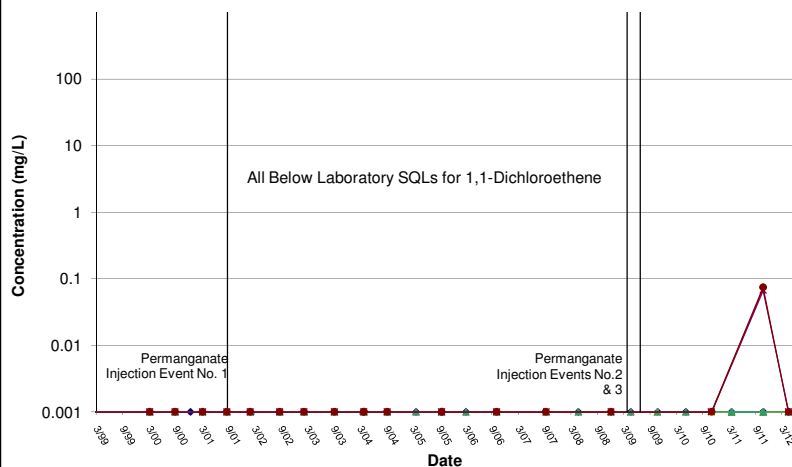
DESIGN: TWM	CHKD:	6/13/2012	REV:
DRAWN: ESB	SCALE: AS SHOWN	W.O. NO: 0129550	



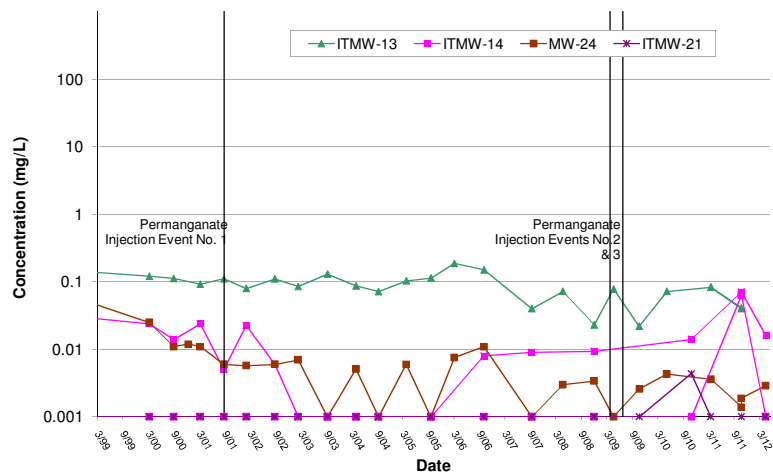
Trichloroethene - Wells on Fringe of Source Area



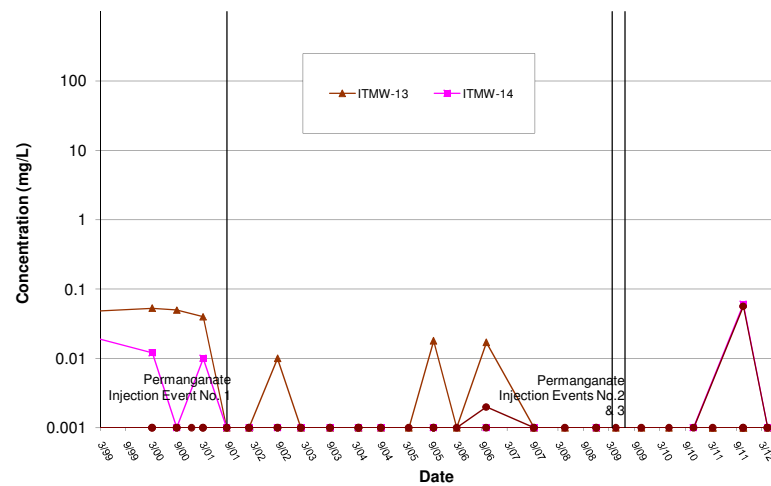
1,1-Dichloroethene - Wells on Fringe of Source Area



cis-1,2-Dichloroethene - Wells on Fringe of Source Area



Vinyl Chloride - Wells on Fringe of Source Area



ERM-Southwest, Inc.

HOUSTON-NEW ORLEANS-AUSTIN-DALLAS-BEAUMONT-BATON ROUGE

FIGURE 10
Concentration Trends from Wells
on Fringe of Source Area
Whirlpool Corporation
Fort Smith, Arkansas

DESIGN: TWM	CHKD:	6/13/2012	REV:
DRAWN: ESB	SCALE: AS SHOWN	W.O. NO: 0129550	



Data Validation Report
Attachment 3

June 28, 2012
Project No. 0159348

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

Data Validation Report

Attachment 3

Whirlpool Corporation
Fort Smith, Arkansas

Introduction

Environmental Resources Management (ERM) reviewed the following laboratory sample delivery groups (SDG) from TestAmerica Laboratories, Inc. of Houston, Texas for ground water samples collected at the Whirlpool Corporation facility in Fort Smith, Arkansas:

- 600-45228-1 – October 24 - 27, 2011, and
- 600-53847-1 – April 17 – 19, 2012

Analysis requested was limited to SW-846 8260B – Volatile Organic Compounds (VOCs) by Gas Chromatography/Mass Spectrometry (GC/MS).

Data were reviewed and validated in accordance with the United States Environmental Protection Agency's (EPA's) *National Functional Guidelines for Organic Data Review* (EPA540/R-99/008, October 1999). The following laboratory submittals were evaluated:

- Sample Preservation and Holding Times,
- GC/MS Instrument Performance Check,
- Initial Calibration,
- Continuing Calibration,
- Blanks,
- System Monitoring Compounds,
- Internal Standards,
- Laboratory Control Samples,
- Matrix Spike/Matrix Spike Duplicates,
- Field Precision, and
- Overall Assessment of Data.

Data Review / Validation Results

Analytical Results

One hundred and five (105) ground water samples, six blind ground water field duplicates, five field blanks, and four trip blanks were submitted to the laboratory and analyzed for VOCs. In addition, ground water samples were collected at six locations (MW-25, ITMW-17, ITMW-16, ITMW-10, MW-26, and ITMW-14) and submitted to the laboratory for the matrix spike/matrix spike duplicate (MS/MSD) analysis. The following table lists the sample identifications by SDG.

SDG	Sample ID
600-53847-1	DUP-01, DUP-02, FB-01, FB-02, ITMW-1, ITMW-13, ITMW-14, ITMW-16, ITMW-17, ITMW-18, ITMW-19, ITMW-2, ITMW-20, ITMW-21, ITMW-3, ITMW-5, ITMW-6, ITMW-7, ITMW-9, IW-72, IW-73, IW-74, IW-75, IW-76, IW-77, IW-78, IW-79, IW-80, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-37, MW-40, MW-46, MW-70, MW-71, RW-69, and TRIP BLANK
600-45228-1	DUP-01, DUP-102511, DUP-102611, DUP-102711, FB-102511, FB-102611, FB-102711, ITMW-1, ITMW-10, ITMW-11, ITMW-12, ITMW-13, ITMW-14, ITMW-15, ITMW-16, ITMW-17, ITMW-18, ITMW-19, ITMW-2, ITMW-20, ITMW-21, ITMW-3, ITMW-4, ITMW-5, ITMW-6, ITMW-7, ITMW-9, IW-72, IW-73, IW-74, IW-75, IW-76, IW-77, IW-78, IW-79, IW-80, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, and MW-30.

Ground water analytical results are reported in ug/L. Not Detected results are reported as less than the value of the practical quantitation limit (PQL).

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody. The samples were received by the laboratory in the appropriate containers and in good condition. Sample receipt temperatures of 4.9, 4.3, 1.1, and 1.3 degrees Celsius were within the acceptance criteria of 4 ± 2 degrees Celsius for SDGs 600-53847-1 and 600-45228-1, respectively. Samples IW-75 (600-53847-1 and 600-45228-1), IW-79, IW-74, IW-73, IW-76 (600-53847-1 and 600-45228-1), and IW-80 were preserved with 5 grams of lab-grade ascorbic acid for residual permanganate quenching methods; however, they were not preserved in the field with HCl to bring the pH below 2. Because the samples were received within the temperature acceptance criteria and were analyzed within 7 days, results were not qualified.

The remaining samples were preserved in the field as specified by the method and were prepared and analyzed within holding times.

GC/MS Instrument Performance Check

GC/MS instrument performance checks are performed to ensure mass resolution, identification, and sensitivity. The appropriate compound, bromofluorobenzene (BFB) for volatile analysis, was used for instrument tuning. GC/MS tunes were performed at the appropriate frequency (once every 12 hours). BFB ion abundance met criteria specified by the method.

No analytical data were qualified based on the results of the GC/MS instrument performance check.

Initial Calibration

Initial calibration demonstrates that the instrument is capable of acceptable performance at the start of an analytical run and producing a linear calibration curve. Six standards (5, 10, 20, 50, 100, and 200) were used for the initial calibration. The initial calibration relative response factors (RRFs) were greater than 0.05 for all VOCs and system monitoring compounds. The

percent relative standard deviation (%RSD) was less than 30% for all relative VOCs and system monitoring compounds.

No analytical data were qualified based on the results of the initial calibration.

Continuing Calibration

Continuing calibration establishes the 12-hour relative response factors on which quantitations are based and checks satisfactory instrument performance on a day-to-day basis. The continuing calibration RRFs were greater than 0.05 for all VOCs and system monitoring compounds. The percent difference (%D) between the initial calibration and continuing calibration RRFs were less than 30% for all VOCs and system monitoring compounds, except as detailed below. Constituent results associated with the CCV exceedance were qualified as estimated (J or UJ).

<i>SDG</i>	<i>Constituent</i>	<i>Associated Samples (Qualification)</i>
600-45228-1	Chloroethane	IW-80, IW-73, MW-37, ITMW-11, ITMW-12, ITMW-13, DUP-102711, ITMW-3, ITMW-1, MW-22, MW-56, MW-41, IW-77, MW-35, MW-65, IW-78, ITMW-4, ITMW-9, ITMW-5, ITMW-6, DUP-102511, ITMW-7, ITMW-21, MW-29, MW-38, MW-37, ITMW-11 All qualified as "UJ"
600-45228-1	Carbon tetrachloride 1,2-Dichloroethane	ITMW-19, ITMW-18, ITMW-18, ITMW-15 All qualified as "UJ"
600-53847-1	Carbon Tetrachloride	MW-30, ITMW-7, IW-78, MW-40, MW-46, MW-24, MW-27, MW-25, ITMW-3, IW-75, MW-37, MW-37, ITMW-18, ITMW-2, ITMW-9, ITMW-6, ITMW-21, IW-72, IW-73, IW-77, DUP-01, IW-79, MW-22, ITMW-1, MW-26, ITMW-17, IW-73, IW-79, MW-71, MW-70 All qualified as "UJ"

Blanks

Laboratory and field blanks indicate the presence and magnitude of contamination resulting from laboratory or field activities. The following table summarizes the contamination reported in the laboratory and field blanks. The discussion following the table details the data qualification, if any.

<i>SDG</i>	<i>Blank ID</i>	<i>Constituents</i>	<i>Concentration (ug/L)</i>	<i>Associated Samples</i>
600-53847-1	MB 600-77727 / 4	No detections	---	---
600-53847-1	MB 600-77728 / 5	No detections	---	---
600-53847-1	MB 600-77729 / 4	No detections	---	---
600-53847-1	MB 600-77767 / 4	No detections	---	---
600-53847-1	MB 600-77880 / 5	No detections	---	---
600-53847-1	MB 600-78168 / 5	No detections	---	---
600-53847-1	MB 600-78240 / 12	No detections	---	---
600-53847-1	MB 600-78101 / 4	No detections	---	---

<i>SDG</i>	<i>Blank ID</i>	<i>Constituents</i>	<i>Concentration (ug/L)</i>	<i>Associated Samples</i>
600-53847-1	MB 600-78101/4 and TRIP Blank (600-53847-45)	Methylene Chloride	1.4	MW-70, RW-69, ITMW-16, MW-23, ITMW-14, ITMW-13 (U)
600-45228-1	MB 600-65363/7	No detections	---	---
600-45228-1	MB 600-65401/6	No detections	---	---
600-45228-1	MB 600-65486/8	No detections	---	---
600-45228-1	MB 600-65530/9	Methylene Chloride	1.9	MW-68, MW-71, MW-70, MW-69, MW-36, MW-33, MW-32, MW-66, MW-67, ITMW-16 (U)
600-45228-1	MB 600-65578/7	Methylene Chloride	1.4	ITMW-12, ITMW-13, DUP-102711, ITMW- 3, FB-102711, ITMW- 1, MW-22 (U) ITMW-11 (J) MW-37 (190 ug/L)
600-45228-1	MB 600-65618/4	Methylene Chloride	1.4	MW-70, MW-69, MW-33, MW-46, MW-46, MW-40, MW-39, MW-34, MW-31, ITMW-10 (U)
600-45228-1	MB 600-65729/4	No detections	---	---
600-45228-1	MB 600-65900/4	No detections	---	---
600-45228-1	MB 600-65942/4	No detections	---	---
600-45228-1	MB 600-66005/4	No detections	---	---
600-45228-1	MB 600-66039/4	No detections	---	---

The methylene chloride concentration in SDG 600-53847-1 sample MW-37 was reported as detected above the reporting limit and was not within ten times the Trip Blank concentration and therefore was not qualified. Other samples associated with method blank 600-78101-4 were reported as Not Detected; therefore, no data were qualified based on method blank detections for SDG 600-53847-1.

Methylene chloride was reported as detected and estimated (J) in SDG 600-45228-1 sample ITMW-11, which is associated with MB 600-65578/7. Because it was qualified as estimated (J), no additional qualifiers were applied based on the detection in the method blank.

The methylene chloride concentration in SDG 600-45228-1 sample MW-37 was reported as detected above the reporting limit and was not within ten times the Trip Blank concentration and therefore was not qualified. Other samples associated with method blanks were reported as Not Detected and no additional qualifiers were applied.

System Monitoring Compounds

System monitoring compounds are added to all samples prior to purging to evaluate the laboratory performance on individual samples. Four volatile surrogates (dibromofluoromethane, 1,2-dichloroethane-d4, toluene-d8, and bromofluorobenzene) were added to each sample. Percent recoveries (%R) for all volatile surrogates in all samples were within the method acceptance limits of 70%-130%.

No analytical data were qualified based on the results of the system monitoring compounds.

Internal Standards

Internal standards indicate whether GC/MS sensitivity and response were stable during each analysis. Four internal standards (pentafluorobenzene, 1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) were added to each sample prior to volatile analysis. All internal standard area counts were within the method-required QC limits of -50% to +100% of the internal standard area counts for the associated 12-hour calibration standard. The retention times for all internal standards did not vary more than the method-specified QC limit of ± 30 seconds from the retention time of the associated 12-hour calibration standard.

No analytical data were qualified based on the results of the internal standards.

Laboratory Control Samples

The laboratory control sample (LCS) provides information on the accuracy of the analytical method and on the laboratory performance. The following table summarizes the LCS results that were outside the acceptance limits of 60% to 140% and any associated qualifications.

<i>SDG</i>	<i>LCS ID</i>	<i>%R Outcome</i>	<i>Associated Samples (Qualification)</i>
600-45228-1	LCS 600-65578/4	Vinyl Chloride (56%)	DUP-102711, FB-102711, ITMW-1, ITMW-13, ITMW-3, MW-22 (R)
600-45228-1	LCS 600-65578/4	Chloromethane (47%)	DUP-102711, FB-102711, ITMW-1, ITMW-13, ITMW-3, MW-22 (R)
600-45228-1	LCS 600-65486/5	Vinyl Chloride (58%)	IW-79 (R)
600-45228-1	LCS 600-65486/5	Acetone (59%)	No associated samples ()
NOTES: () = No qualification.			

LCS recoveries for vinyl chloride and chloromethane were below acceptance limits for batches 65578 and 65486. Associated samples that were reported as "Not Detected" for these analytes were qualified as rejected (R). LCS recoveries for vinyl chloride and acetone were below acceptance limits for batch 65486. Associated sample IW-79 was reported as "Not Detected" for vinyl chloride and was therefore qualified as rejected (R). IW-79 was not analyzed for acetone.

Matrix Spike/Matrix Spike Duplicates

MS/MSD data are used to assess long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery at the time of sample analysis. The table below summarizes MS/MSD analyses that were performed in association with samples from the SDGs of interest, in addition to constituents with recoveries and/or relative percent differences (RPD outside the acceptance limits of %60 to 140% or 40% of less, respectively:

SDG	Lab Sample ID (Well ID)	Constituent	MS %R	MSD %R	RPD	Associated Batch
600-53847-1	600-53847-14 (MW-25)	Bromomethane, Chloroethane, Cis-1,2-dichloroethane	156 152 23	134 131 155	15 15 8	600-77727
600-45228-1	600-45228-16 (ITMW-16)	1,2-Dichloroethane, Bromomethane, Chloroethane,	148 75 86	146 105 116	2 31 33	600-65530
600-45228-1	600-45228-43 (ITMW-10)	1,1-Dichloroethane 1,1-Dichloroethene	122 166	128 179	5 7	600-65618
600-45228-1	600-45228-54 (MW-26)	1,1-Dichloroethene Ethylbenzene Tetrachloroethene Toluene Trichloroethene	158 122 138 122 126	158 134 146 131 133	0 9 6 6 6	600-65729
600-45228-1	600-45228-60 DL (ITMW-15)	Carbon Tetrachloride	149	150	1	600-66039
600-45228-1	600-45228-66 (ITMW-14)	Carbon Tetrachloride Chloroform 1,1-Dichloroethane 1,2-Dichloroethane Ethylbenzene Tetrachloroethane 1,1,1-Trichloroethane Trichloroethene	176 135 125 157 131 149 167 134	147 134 136 166 126 134 173 144	4 0 9 5 4 7 4 7	600-66005
600-45228-1	No MS/MSD					600-65363
600-45228-1	No MS/MSD					600-65401
600-45228-1	No MS/MSD					600-65486
600-45228-1	No MS/MSD					600-65578

SDG 600-53847-1

The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 77727 for bromomethane, chloroethane, and cis-1,2-dichloroethane were outside control limits for MW-25 (600-53847-14 MS) and MW-25 (600-53847-14 MSD). Matrix interference is suspected. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

SDG 600-45228-1

The MS/MSD recoveries in samples ITMW-16 (600-45228-16 MS/MSD) were above acceptance limits for 1,1-dichloroethane, bromomethane, and chloroethane, Matrix interference is suspected. Also relative percent differences (RPD) between ITMW-16 (600-45228-16 MS and MSD) were above acceptance limits. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

The chloroethane recovery in sample (600-45228-30 DL MSD) and the %RPD between samples (600-45228-30 DL MS and MSD) were above acceptance limits. Matrix interference is suspected. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

The 1,1-dichloroethene recovery in sample ITMW-10 (600-45228-43 MS) and the 1,1-dichloroethane and 1,1-dichloroethene recoveries in sample ITMW-10 (600-45228-43 MSD) were above acceptance limits. Matrix interference is suspected. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

The 1,1-dichloroethene recovery in sample MW-26 (600-45228-54 MS) and the 1,1-dichloroethene, ethylbenzene, tetrachloroethene, toluene and trichloroethene recoveries in sample MW-26 (600-45228-54 MSD) were above acceptance limits. Matrix interference is suspected. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

The Carbon tetrachloride recoveries in samples 600-45228-60 DL MS and MSD were above acceptance limits. Matrix interference is suspected. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

Recoveries for carbon tetrachloride, chloroform, 1,2-dichloroethane, ethylbenzene, tetrachloroethene, 1,1,1-trichloroethene, and trichloroethene were above acceptance limits in sample ITMW-14 (600-45228-66 MS). Also, recoveries for carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethene, and trichloroethene in sample ITMW-14 (600-45228-66 MSD) were above acceptance limits. Matrix interference is suspected. LCS recoveries for these samples were within acceptance limits and no data were qualified based on the MS/MSD results.

Field Precision

Two field duplicate sample pairs (Dup-1/IW-77, Dup-2/ITMW-19) were collected with SDG 600-53847 and four duplicate sample pairs (Dup-1/MW-24, DUP-102511/ITMW-6, DUP-102711, ITMW-13, DUP-102611/ITMW-20) were collected with SDG 600-45228-1. Seven constituents were detected in the original sample and/or duplicate sample. All RPDs were less than the acceptance limit of 40% therefore no qualification was assigned based on the field duplicate data.

<i>SDG</i>	<i>Field ID</i>	<i>DUP ID</i>	<i>Constituent</i>	<i>Sample Result</i>	<i>Duplicate Result</i>	<i>RPD</i>
600-53847-1	IW-77	DUP-01	1,1-Dichloroethene	1.2	1.2	0%
			cis-1,2-Dichloroethene	23	20	14%
			1,2-Dichloroethene, Total	23	20	14%
			Trichloroethene	510	520	2%
600-53847-1	ITMW-19	DUP-02	1,1-Dichloroethene	17	15	13%
			Chloroform	5	5	0%
			cis-1,2-Dichloroethene	110	110	0%
			Tetrachloroethene	3.1	3.3	6%

<i>SDG</i>	<i>Field ID</i>	<i>DUP ID</i>	<i>Constituent</i>	<i>Sample Result</i>	<i>Duplicate Result</i>	<i>RPD</i>
			trans-1,2-Dichloroethene	0.89	1.2	30%
			1,2-Dichloroethene, Total	110	110	0%
			Trichloroethene	18000	15000	18%
600-45228-1	MW-24	DUP-01	cis-1,2-Dichloroethene	1.9	1.4	30%
			Trichloroethene	170	170	0%
			1,2-Dichloroethene, Total	1.9	1.4	30%
600-45228-1	ITMW-6	DUP-102511	1,1-Dichloroethane	4.6	4.3	7%
			cis-1,2-Dichloroethene	2.4	2.7	12%
			1,2-Dichloroethene, Total	2.4	2.7	12%
600-45228-1	ITMW-13	DUP-102711	cis-1,2-Dichloroethene	41	40	2%
			Trichloroethene	65	64	2%
			1,2-Dichloroethene, Total	41	40	2%
600-45228-1	ITMW-20	DUP-102611	No Detections	---	---	---

Overall Assessment of Data

The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Results for seven samples were rejected during this validation due to inability to meet acceptable laboratory control sample recoveries for vinyl chloride and chloromethane. Some data are qualified as Not Detected or estimated due to the inability to meet all QC criteria. The table below summarizes the final qualifications for the analytical data.

<i>QC Failure Reason</i>	CCV		CCV		CCV		CCV		LCS %R		LCS %R	
<i>SDG</i>	600-45228-1		600-45228-1		600-45228-1		600-53847-1		600-45228-1		600-45228-1	
<i>Constituent</i>	Chloroethane		Carbon tetrachloride		1,2-Dichloroethane		Carbon tetrachloride		Vinyl Chloride		Chloromethane	
<i>Sample ID</i>	IW-80	UJ	ITMW-19	UJ	ITMW-19	UJ	MW-30	UJ	DUP-102711	R	DUP-102711	R
	IW-73	UJ	ITMW-18	UJ	ITMW-18	UJ	ITMW-7	UJ	FB-102711	R	FB-102711	R
	MW-37	UJ	ITMW-15	UJ	ITMW-15	UJ	IW-78	UJ	ITMW-1	R	ITMW-1	R
	ITMW-11	UJ					MW-40	UJ	ITMW-13	R	ITMW-13	R
	ITMW-12	UJ					MW-46	UJ	ITMW-3	R	ITMW-3	R
	ITMW-13	UJ					MW-24	UJ	MW-22	R	MW-22	R
	DUP-102711	UJ					MW-27	UJ	DUP-102711	R	DUP-102711	R
	ITMW-3	UJ					MW-25	UJ	FB-102711	R	FB-102711	R
	ITMW-1	UJ					ITMW-3	UJ	IW-79	R		
	MW-22	UJ					IW-75	UJ				
	MW-56	UJ					MW-37	UJ				
	MW-41	UJ					MW-37	UJ				
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	MW-35	UJ					ITMW-2	UJ				
	MW-65	UJ					ITMW-9	UJ				
	IW-78	UJ					ITMW-6	UJ				
	ITMW-4	UJ					ITMW-21	UJ				
	ITMW-9	UJ					IW-72	UJ				
	ITMW-5	UJ					IW-73	UJ				
	ITMW-6	UJ					IW-77	UJ				
	DUP-102511	UJ					DUP-01	UJ				
	ITMW-7	UJ					IW-79	UJ				
	ITMW-21	UJ					MW-22	UJ				
	MW-29	UJ					ITMW-1	UJ				
	MW-38	UJ					MW-26	UJ				
	MW-37	UJ					ITMW-17	UJ				
	ITMW-11	UJ					IW-73	UJ				
							IW-79	UJ				
							MW-71	UJ				
							MW-70	UJ				

Fall 2011



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(479) 649-8378

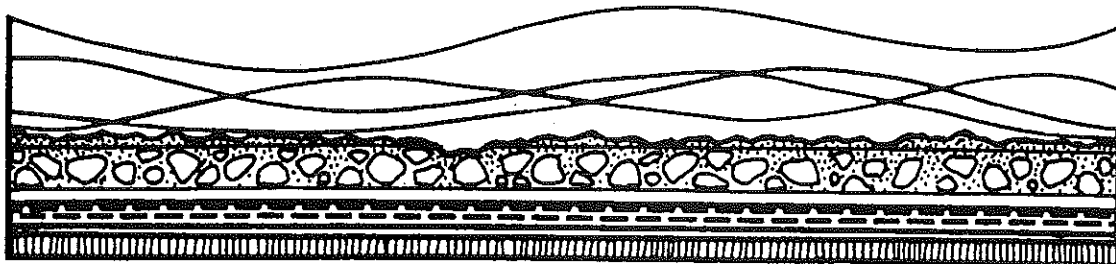
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 36522
Date 12/02/2011

Project **ERM SOUTHWEST**

Analysis of Eleven (11) Water Samples received on October 26, 2011, for ERM Southwest, Houston, Texas
(MW-41,56,57,55,62,61,60,50,63,65 & IW-78)

	Units	Rate	Billed Amount
Nitrate Nitrogens	11.00	20.00	220.00
Chloride Tests	11.00	10.00	110.00
Potassium Tests	11.00	23.00	253.00
Sulfate Tests	11.00	20.00	220.00
ferrous iron	11.00	50.00	550.00
Invoice total			1,353.00



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-57

Date Sample Collected: October 25, 2011
Time Sample Collected: 11:15am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117319

Received Temperature:

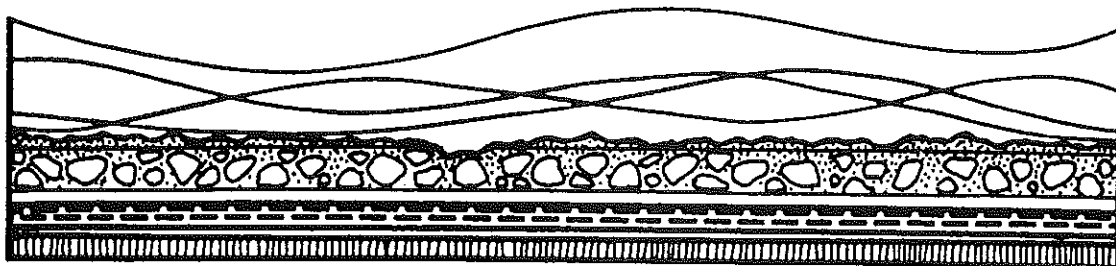
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/8/2011	2:00pm	AIP	3.1	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:42pm	CAP	190	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:30pm	CAP	0.525	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	2:00pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-56

Date Sample Collected: October 25, 2011
Time Sample Collected: 10:55am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117318

Received Temperature:

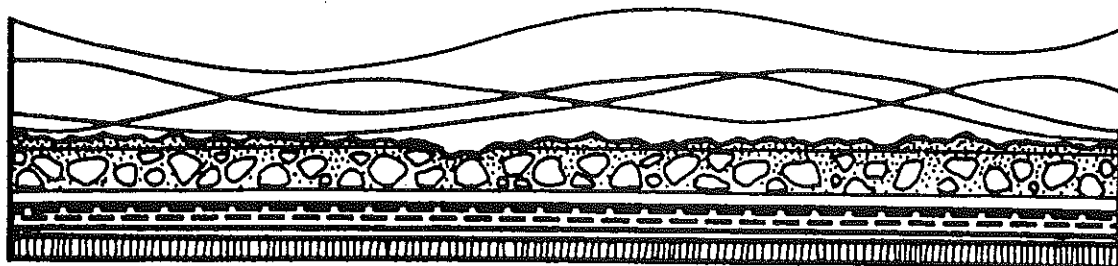
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/8/2011	1:34pm	AIP	7.8	0.2	92.2	1.81
Chloride	4500-CL	10/28/2011	2:44pm	CAP	220	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:00pm	CAP	0.527	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:17pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-63

Date Sample Collected: October 25, 2011
Time Sample Collected: 10:35am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 2017317

Received Temperature:

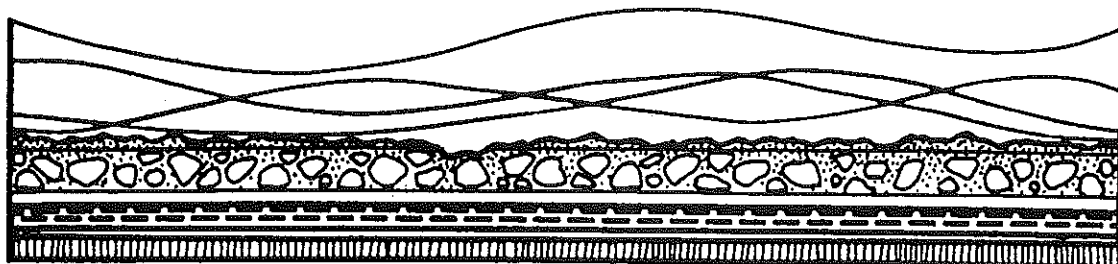
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	11:51pm	AIP	6.2	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:46pm	CAP	200	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:00pm	CAP	0.553	0.3	9.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:15pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-50

Date Sample Collected: October 25, 2011
Time Sample Collected: 10:15am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117316

Received Temperature:

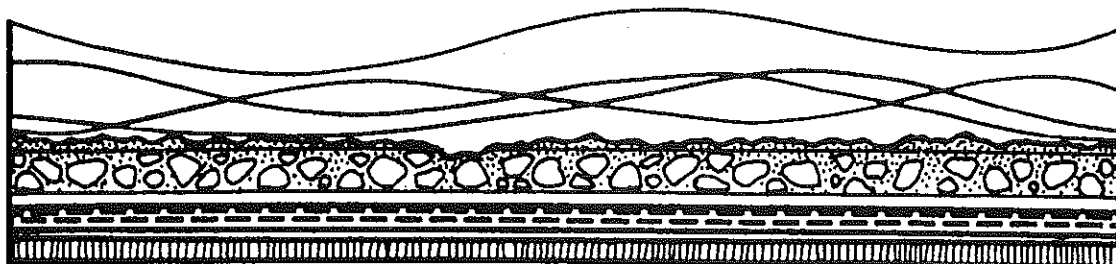
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	11:25pm	AIP	1.9	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:48pm	CAP	250	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:00pm	CAP	0.246	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:13pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-60

Date Sample Collected: October 25, 2011
Time Sample Collected: 9:55am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117315

Received Temperature:

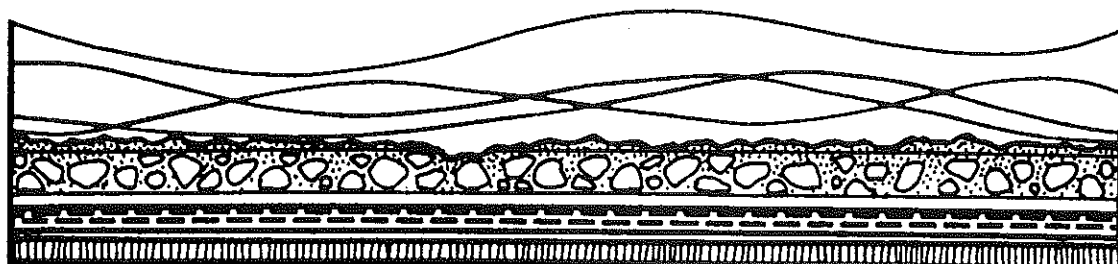
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	10:59pm	AIP	24	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:50pm	CAP	100	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:00pm	CAP	0.244	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:11pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-61

Date Sample Collected: October 25, 2011
Time Sample Collected: 9:30am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117314

Received Temperature:

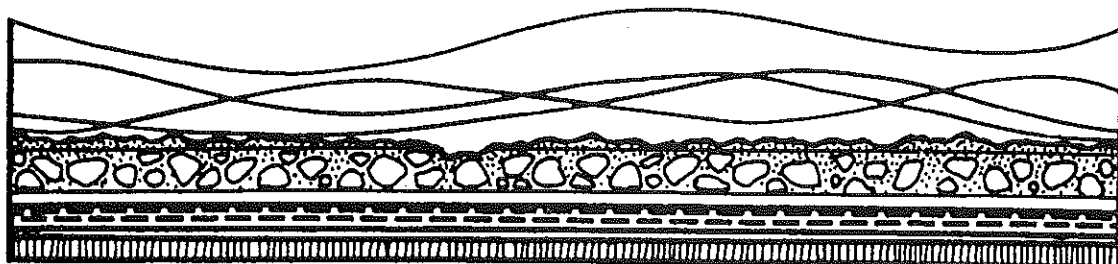
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	10:34pm	AIP	1.3	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:52pm	CAP	65	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:30pm	CAP	0.733	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:09pm	AIP	1.3	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-78

Date Sample Collected: October 25, 2011
Time Sample Collected: 5:06pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117313

Received Temperature:

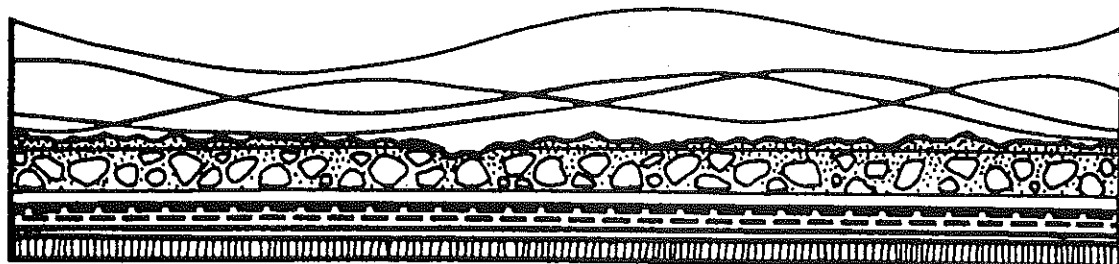
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	10:08pm	AIP	6.9	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:54pm	CAP	400	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:30pm	CAP	0.906	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:07pm	AIP	3.4	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-65

Date Sample Collected: October 25, 2011
Time Sample Collected: 4:30pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117312

Received Temperature:

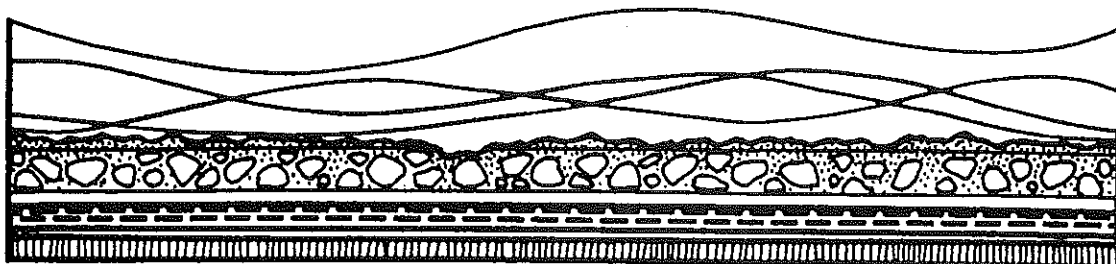
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	9:42pm	AIP	3.7	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:56pm	CAP	400	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	4:30pm	CAP	0.778	0.3	97.0	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:06pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-55

Date Sample Collected: October 25, 2011
Time Sample Collected: 11:30am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117311

Received Temperature:

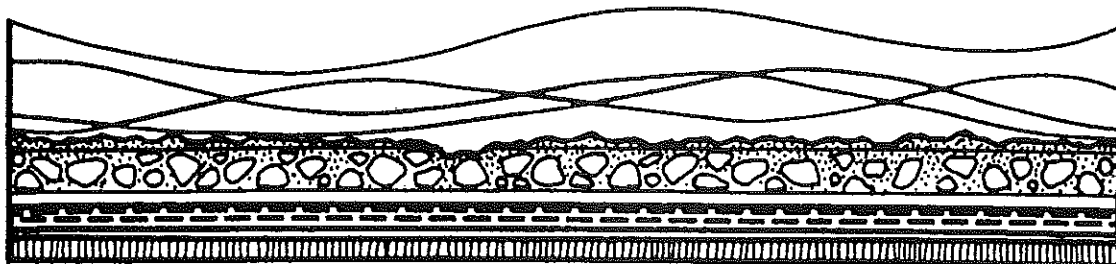
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	9:16pm	AIP	0.83	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:58pm	CAP	350	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	5:15pm	CAP	0.339	0.3	97.7	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:04pm	AIP	1.2	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-62

Date Sample Collected: October 25, 2011
Time Sample Collected: 11:00am
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117310

Received Temperature:

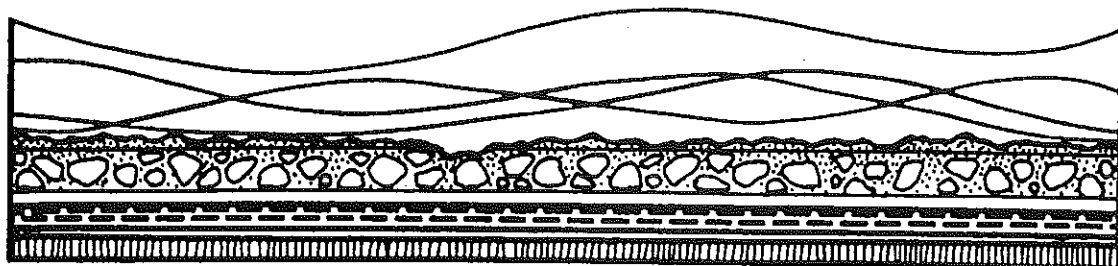
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	8:50pm	AIP	3.7	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:00pm	CAP	200	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	5:15pm	CAP	0.894	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	6:02pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 29, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-41

Date Sample Collected: October 25, 2011
Time Sample Collected: 2:35pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117320

Received Temperature:

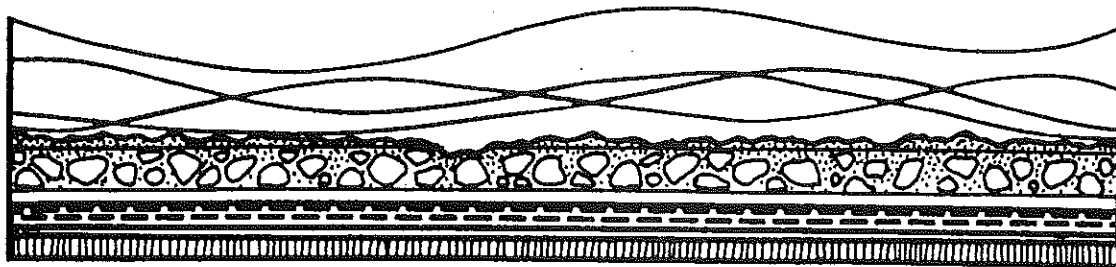
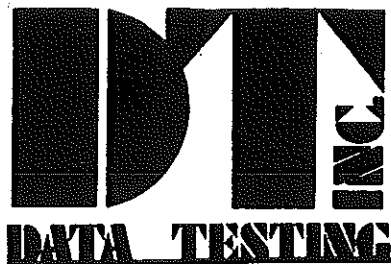
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/8/2011	3:29pm	AIP	3.5	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	2:40pm	CAP	200	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:30pm	CAP	1.115	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	2:04pm	AIP	5.8	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-14

Date Sample Collected: October 27, 2011
Time Sample Collected: 10:10am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:47am
Sample Received By: C Peterson

Sample #: 20117411

Received Temperature:

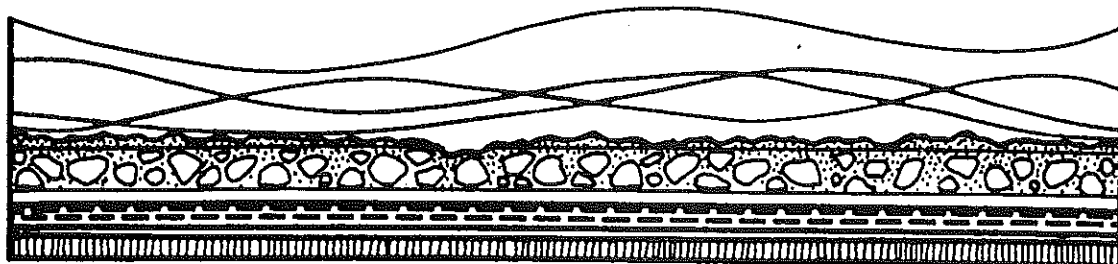
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	4:33pm	AIP	7.5	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:48pm	CAP	20	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:30pm	CAP	0.57	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:30pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-13

Date Sample Collected: October 27, 2011
Time Sample Collected: 10:50am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:47am
Sample Received By: C Peterson

Sample #: 20117412

Received Temperature:

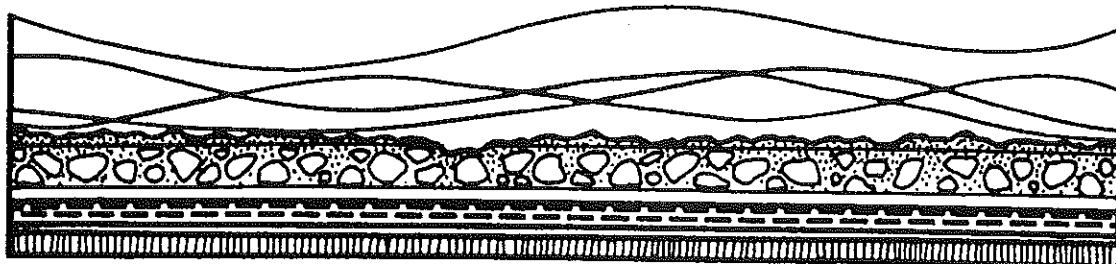
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/12/2011	8:41am	AIP	7.6	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:46pm	CAP	30	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:30pm	CAP	0.796	0.3	93.9	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:28pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-3

Date Sample Collected: October 27, 2011
Time Sample Collected: 10:25am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:47am
Sample Received By: C Peterson

Sample #: 20117413

Received Temperature:

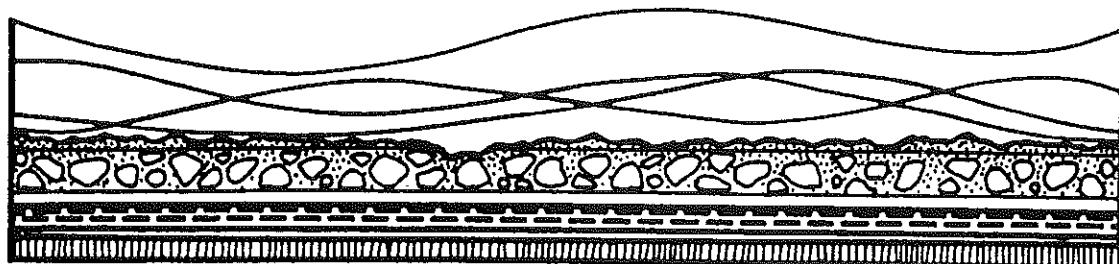
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/12/2011	8:15am	AIP	25	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:44pm	CAP	20	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:30pm	CAP	1.307	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:26pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-1

Date Sample Collected: October 27, 2011
Time Sample Collected: 12:10pm
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:47am
Sample Received By: C Peterson

Sample #: 20117414

Received Temperature:

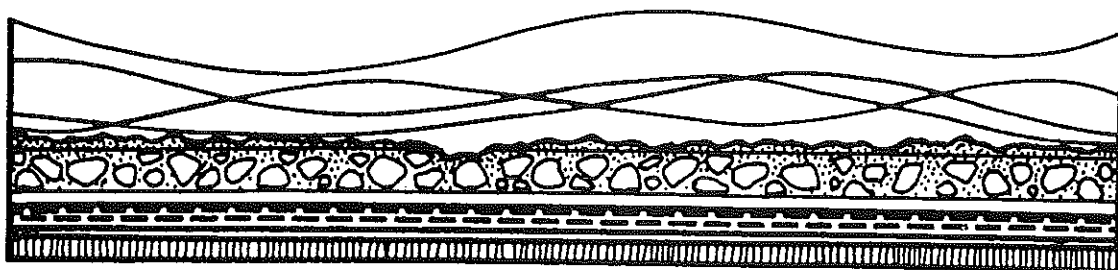
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	11:49apm	AIP	22	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:42pm	CAP	180	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:30pm	CAP	0.540	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:20pm	AIP	1.5	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-22

Date Sample Collected: October 27, 2011

Time Sample Collected: 12:50pm

Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011

Time Sample Received: 11:47am

Sample Received By: C Peterson

Sample #: 20117415

Received Temperature:

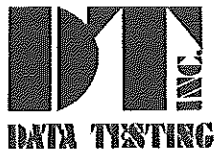
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	11:23pm	AIP	12	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:40pm	CAP	72	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:30pm	CAP	0.571	0.3	93.9	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:32pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



3434 Country Club Avenue
P.O. Box 1507
Fort Smith, AR 72902
(479) 649-8378

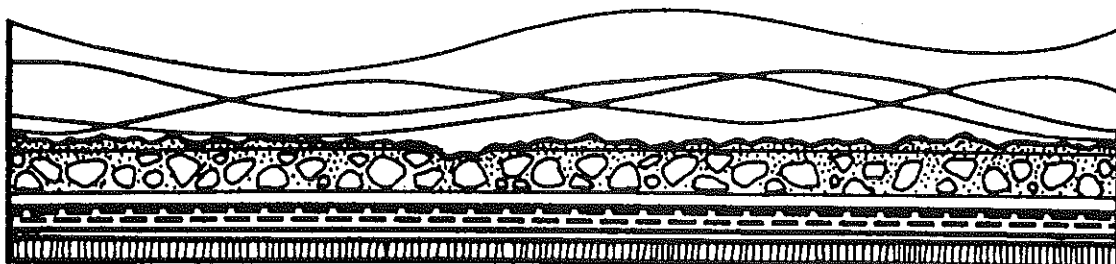
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 36520
Date 12/02/2011

Project **ERM SOUTHWEST**

Analysis of Five (5) Water Samples received on October 28, 2011, for ERM Southwest, Houston, Texas (MW-23,24,27,28 & ITMW-16)

	Units	Rate	Billed Amount
Nitrate Nitrogens	5.00	20.00	100.00
Chloride Tests	5.00	10.00	50.00
Potassium Tests	5.00	23.00	115.00
Sulfate Tests	5.00	20.00	100.00
ferrous iron	5.00	50.00	250.00
Invoice total			615.00



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-24

Date Sample Collected: October 27, 2011
Time Sample Collected: 11:41am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:51am
Sample Received By: C Peterson

Sample #: 20117420

Received Temperature:

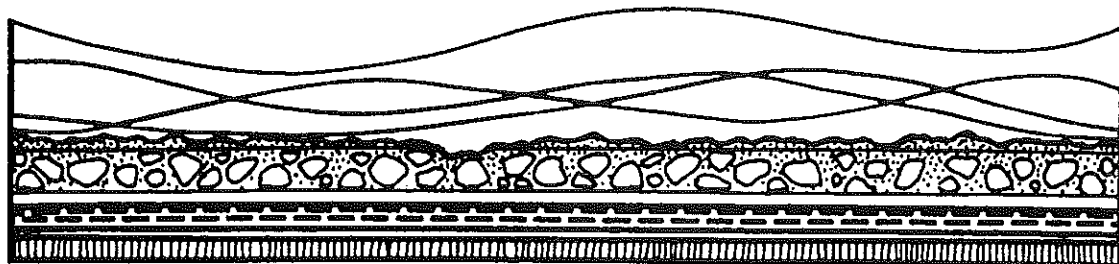
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>	<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011 9:40pm	AIP	8.6	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011 12:28pm	CAP	380	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011 3:00pm	CAP	1.407	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011 1:10pm	AIP	3.7	1	104.0	6.90
Ferrous Iron *	SM 3500-Fe B	11/16/2011 9:00am	AIP	<0.007	0.007	99.9	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-23

Date Sample Collected: October 27, 2011
Time Sample Collected: 10:25am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:57am
Sample Received By: C Peterson

Sample #: 20117416

Received Temperature:

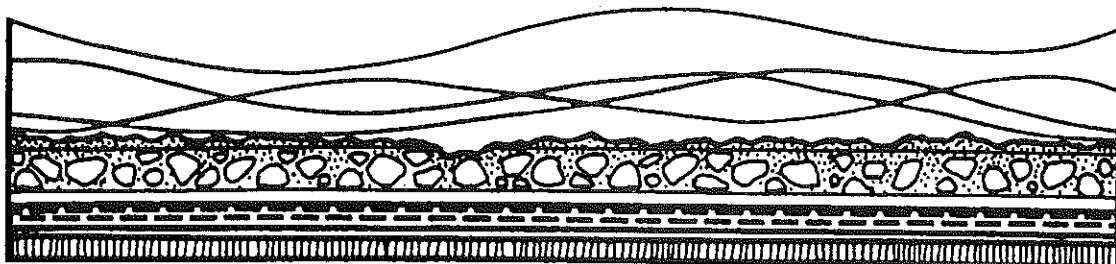
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	10:57pm	AIP	10	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:36pm	CAP	380	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:00pm	CAP	1.102	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:18pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	99.9	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-16

Date Sample Collected: October 27, 2011
Time Sample Collected: 12:00pm
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:47am
Sample Received By: C Peterson

Sample #: 20117417

Received Temperature:

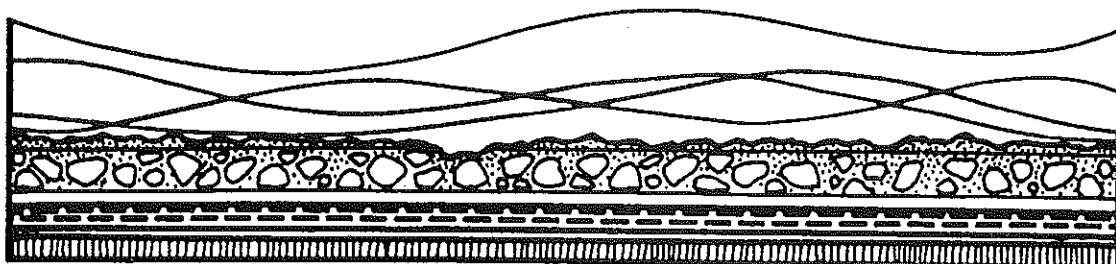
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	10:31pm	AIP	12	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:34pm	CAP	60	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:00pm	CAP	1.915	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:16pm	AIP	3.2	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	99.9	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-28

Date Sample Collected: October 27, 2011
Time Sample Collected: 10:06am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:47am
Sample Received By: C Peterson

Sample #: 20117418

Received Temperature:

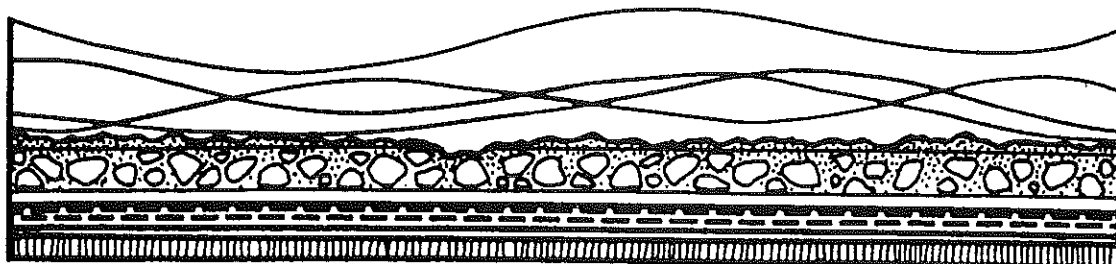
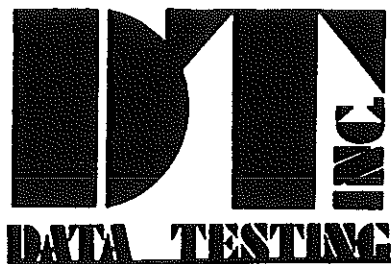
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	10:06am	AIP	40	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:32pm	CAP	40	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:00pm	CAP	0.886	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:14pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	99.9	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-27

Date Sample Collected: October 27, 2011
Time Sample Collected: 10:56am
Sample Collected By: ERM Southwest

Date Sample Received: October 28, 2011
Time Sample Received: 11:51am
Sample Received By: C Peterson

Sample #: 20117419

Received Temperature:

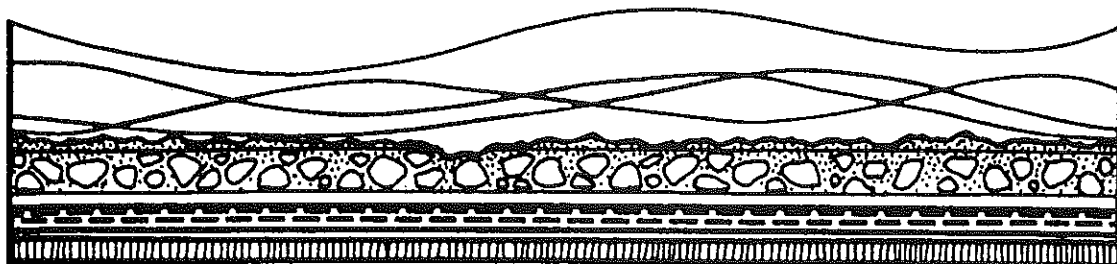
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	10:06pm	AIP	7.7	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:30pm	CAP	25	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	4:00pm	CAP	1.510	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:14pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	99.9	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-70

Date Sample Collected: October 26, 2011
Time Sample Collected: 11:50am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117371

Received Temperature:

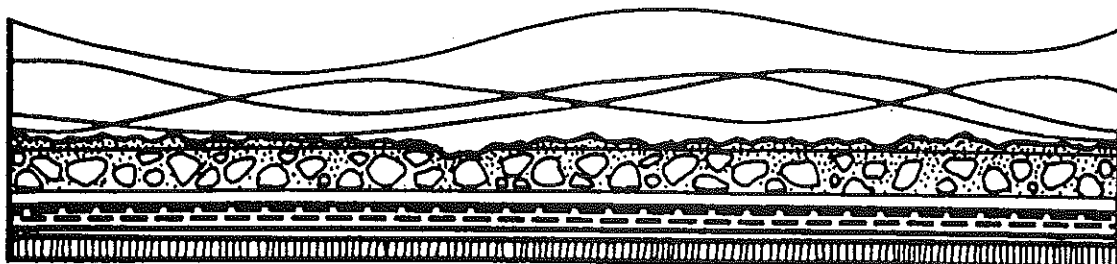
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/19/2011	3:00pm	AIP	1.5	0.2	102.0	1.57
Chloride	4500-CL	11/2/2011	11:56am	CAP	340	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:00pm	CAP	0.537	0.3	95.1	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:36pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-68

Date Sample Collected: October 26, 2011
Time Sample Collected: 10:15am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117369

Received Temperature:

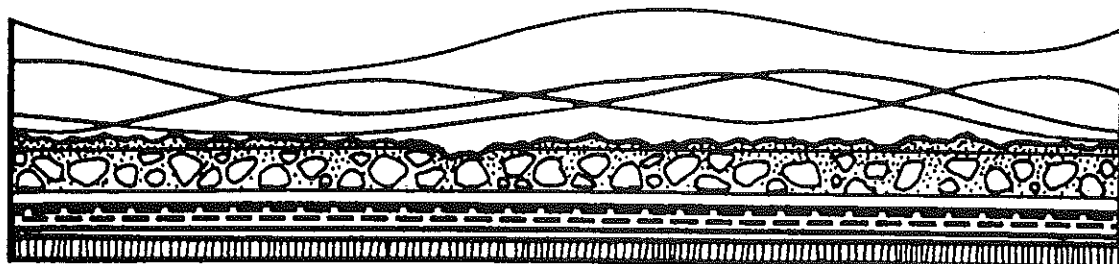
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	5:50pm	AIP	1.6	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:59am	CAP	340	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:00pm	CAP	0.437	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:40pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-71

Date Sample Collected: October 26, 2011
Time Sample Collected: 10:54am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117370

Received Temperature:

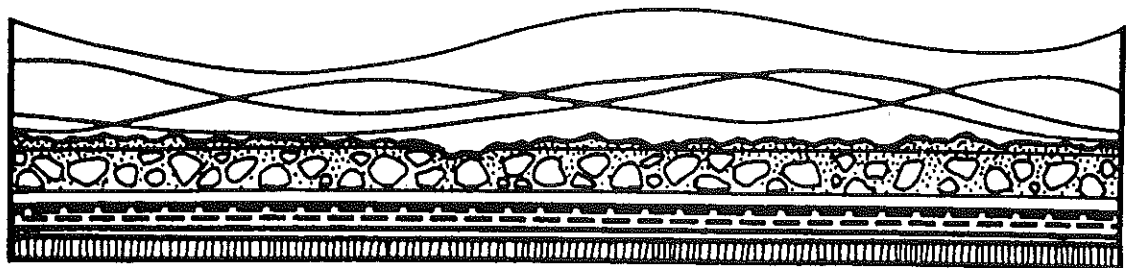
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	5:24pm	AIP	6.4	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:57am	CAP	345	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:00pm	CAP	0.264	0.3	95.1	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:38pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: RW-69

Date Sample Collected: October 26, 2011
Time Sample Collected: 1:11pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117372

Received Temperature:

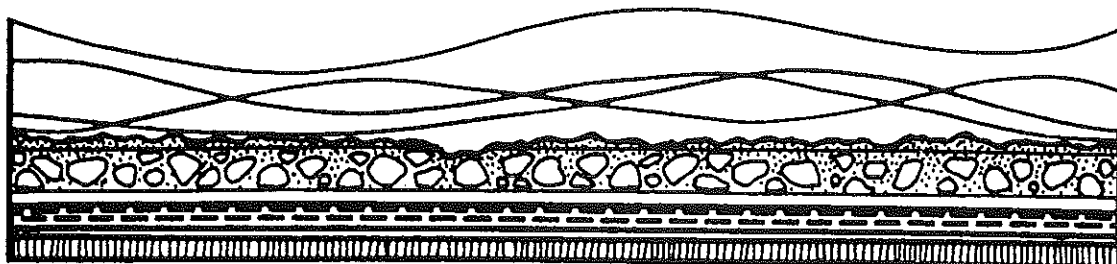
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	4:59pm	AIP	4	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:54am	CAP	340	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:00pm	CAP	0.612	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:34pm	AIP	1.0	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-36

Date Sample Collected: October 26, 2011
Time Sample Collected: 2:59pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117373

Received Temperature:

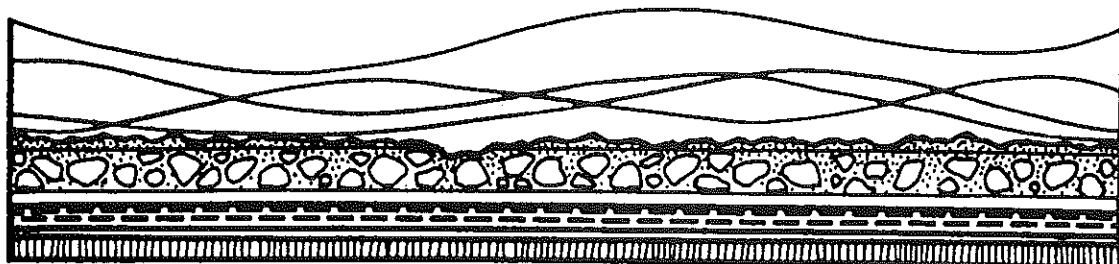
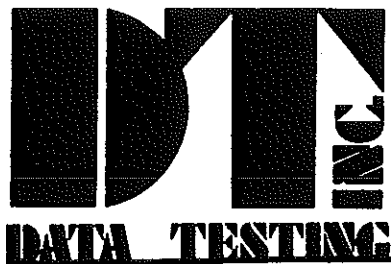
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	4:33pm	AIP	7.5	0.2	97.2	0.328
Chloride	4500-CL	11/2/2011	11:53am	CAP	300	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:30pm	CAP	1.38	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:32pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-33

Date Sample Collected: October 26, 2011
Time Sample Collected: 3:56pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117374

Received Temperature:

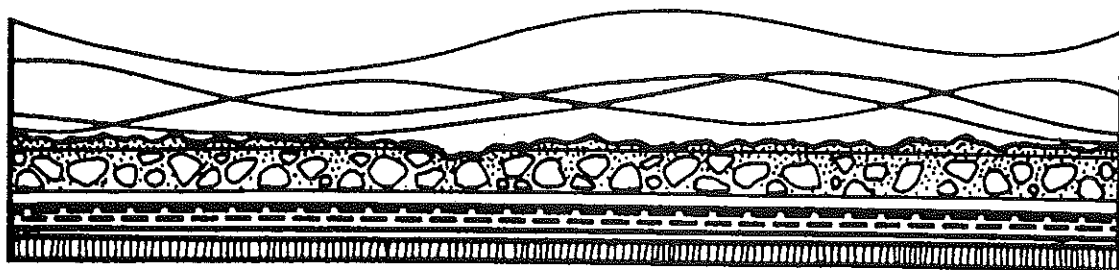
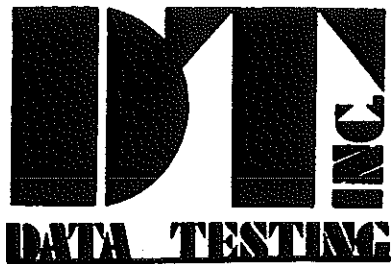
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	5:03pm	AIP	5.4	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:51am	CAP	180	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:30pm	CAP	1.88	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:08pm	AIP	5.4	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-32

Date Sample Collected: October 26, 2011
Time Sample Collected: 4:41pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117375

Received Temperature:

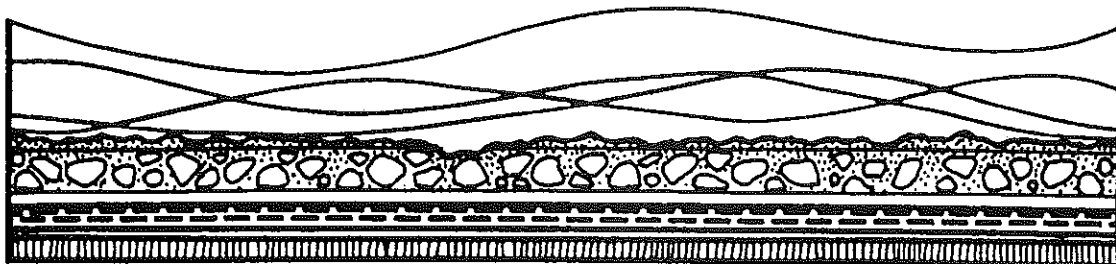
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	9:24pm	AIP	7.3	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:49am	CAP	370	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:30pm	CAP	2.06	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:06pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-7

Date Sample Collected: October 25, 2011
Time Sample Collected: 4:20pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117328

Received Temperature:

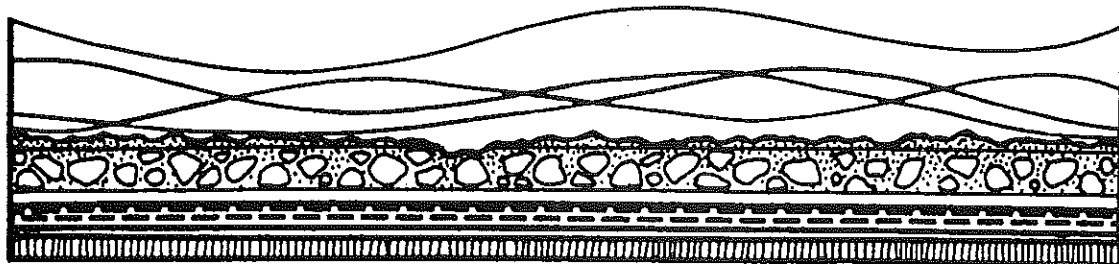
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/5/2011	3:28am	AIP	13	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:43pm	CAP	200	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	2:30pm	CAP	2.300	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:49pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-6

Date Sample Collected: October 25, 2011
Time Sample Collected: 3:35pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117327

Received Temperature:

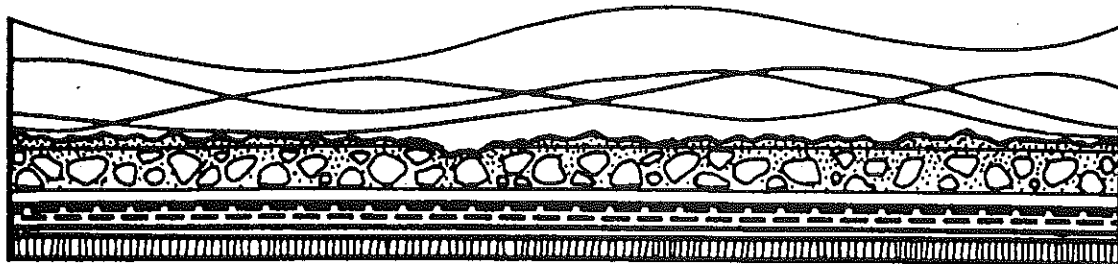
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	8:24pm	AIP	110	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:45pm	CAP	130	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	2:30pm	CAP	17.29	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:47pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-5

Date Sample Collected: October 25, 2011
Time Sample Collected: 2:55pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117326

Received Temperature:

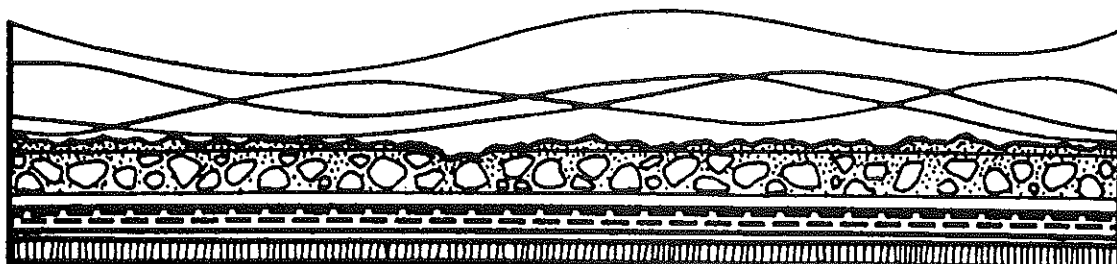
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/5/2011	2:35am	AIP	25	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:47pm	CAP	144	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:00pm	CAP	8.16	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:45pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-10

Date Sample Collected: October 25, 2011
Time Sample Collected: 2:00pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117325

Received Temperature:

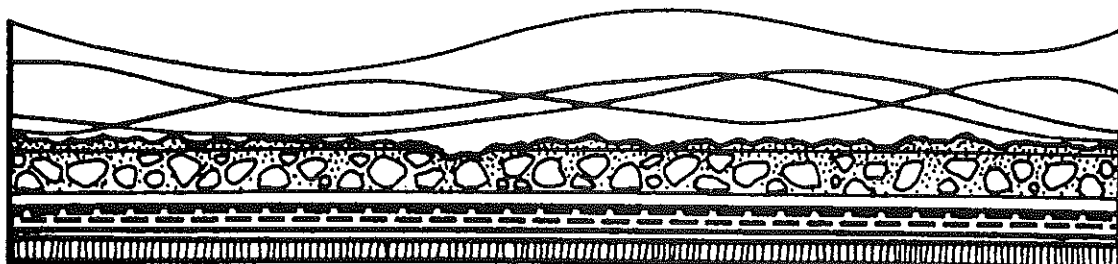
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/5/2011	2:10am	AIP	40	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:49pm	CAP	130	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:00pm	CAP	8.82	0.3	9.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:43pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-9

Date Sample Collected: October 25, 2011
Time Sample Collected: 1:25pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117324

Received Temperature:

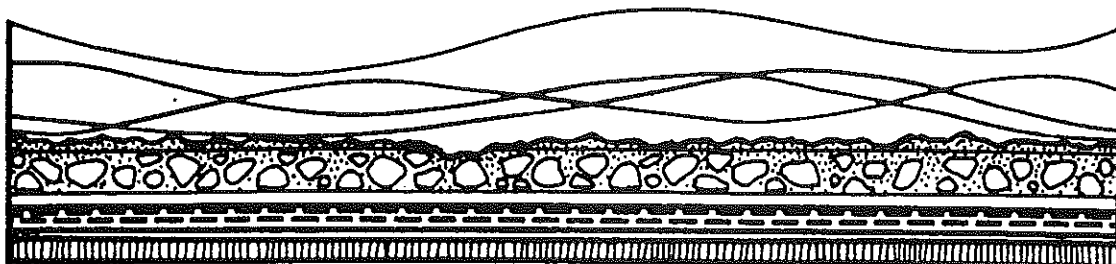
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	7:59pm	AIP	59	2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:51pm	CAP	70	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:00pm	CAP	16.53	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:41pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-4

Date Sample Collected: October 25, 2011
Time Sample Collected: 12:30pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117323

Received Temperature:

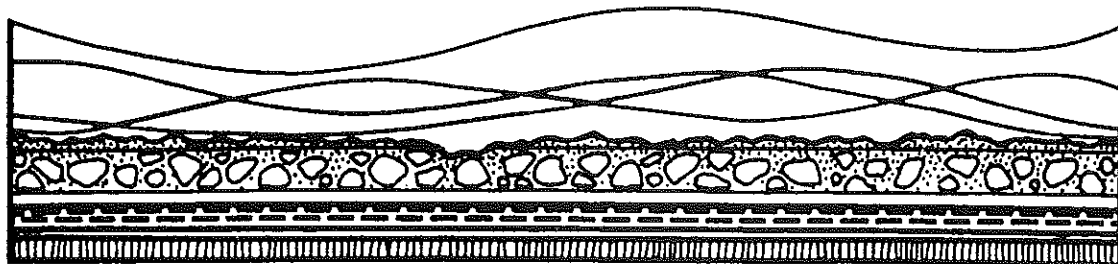
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/5/2011	1:19am	AIP	2.1	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:53pm	CAP	100	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:00pm	CAP	6.73	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:39pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-35R

Date Sample Collected: October 25, 2011
Time Sample Collected: 4:30pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117322

Received Temperature:

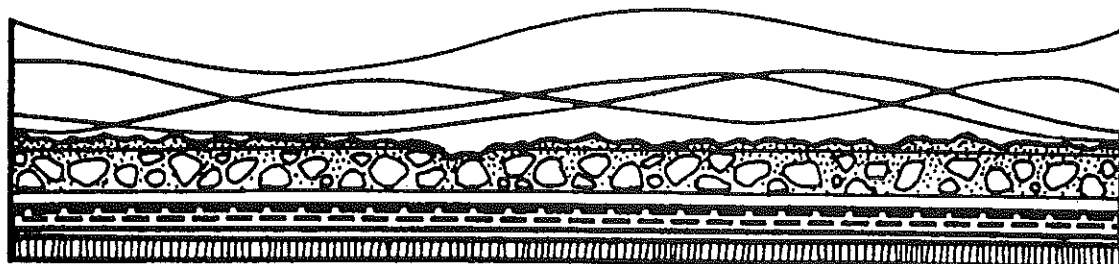
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/5/2011	8:53am	AIP	6.4	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:56pm	CAP	380	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:00pm	CAP	3.91	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:37pm	AIP	1.1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-77

Date Sample Collected: October 25, 2011
Time Sample Collected: 3:25pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117321

Received Temperature:

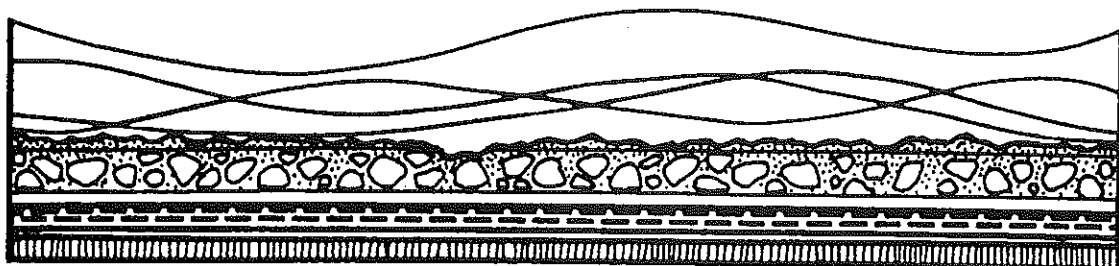
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/5/2011	8:27am	AIP	2.8	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:57pm	CAP	300	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	3:30pm	CAP	5.30	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:31pm	AIP	2.6	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-74

Date Sample Collected: October 25, 2011
Time Sample Collected: 12:50pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117331

Received Temperature:

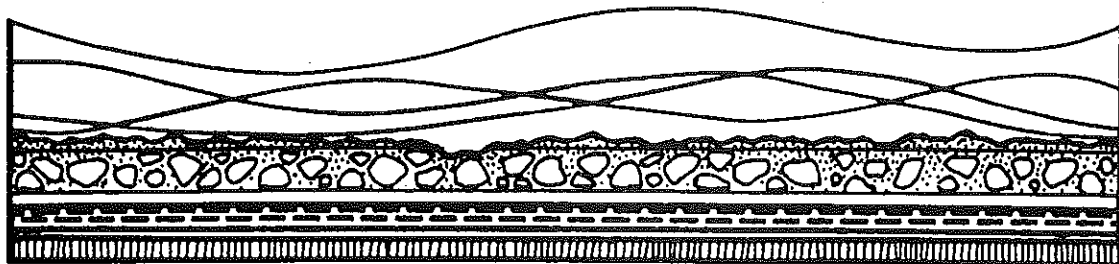
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	11:33am	AIP	7.7	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:02pm	CAP	400	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	5:15pm	CAP	1.123	0.3	97.7	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:56pm	AIP	5	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	96.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-29

Date Sample Collected: October 25, 2011
Time Sample Collected: 5:35pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117330

Received Temperature:

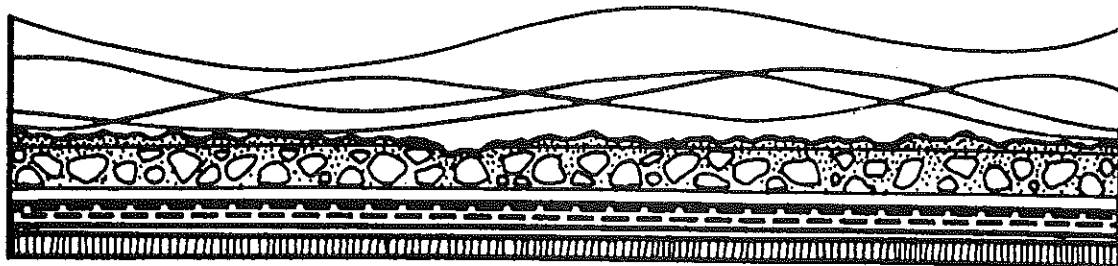
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	10:41am	AIP	26	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:40pm	CAP	100	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	2:30pm	CAP	2.401	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:54pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	96.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-21

Date Sample Collected: October 25, 2011
Time Sample Collected: 4:55pm
Sample Collected By: ERM Southwest

Date Sample Received: October 26, 2011
Time Sample Received: 12:03pm
Sample Received By: C Peterson

Sample #: 20117329

Received Temperature:

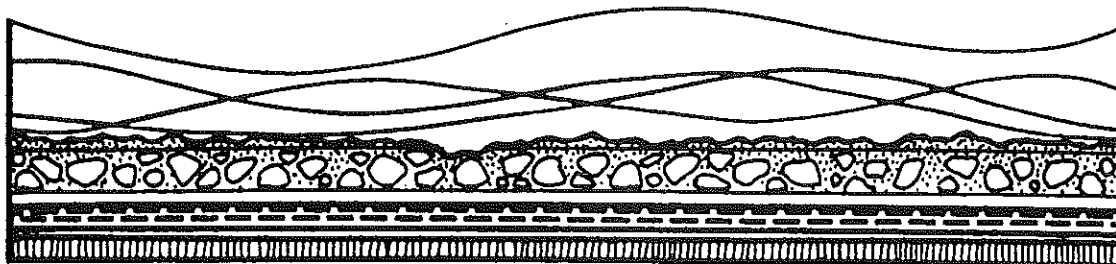
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/7/2011	10:16am	AIP	6.9	0.2	97.2	1.81
Chloride	4500-CL	10/28/2011	3:42pm	CAP	580	3		0.0
Nitrogen, Nitrate	4500-E	10/27/2011	2:30pm	CAP	0.749	0.3	97.2	3.7
Potassium *	EPA 3010A 6010C	11/3/2011	5:52pm	AIP	<1	1	104.0	1.51
Ferrous Iron *	SM 3500- Fe B	11/8/2011	3:30pm	AIP	<0.007	0.007	98.9	3.09

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-30

Date Sample Collected: October 26, 2011
Time Sample Collected: 9:55am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117362

Received Temperature:

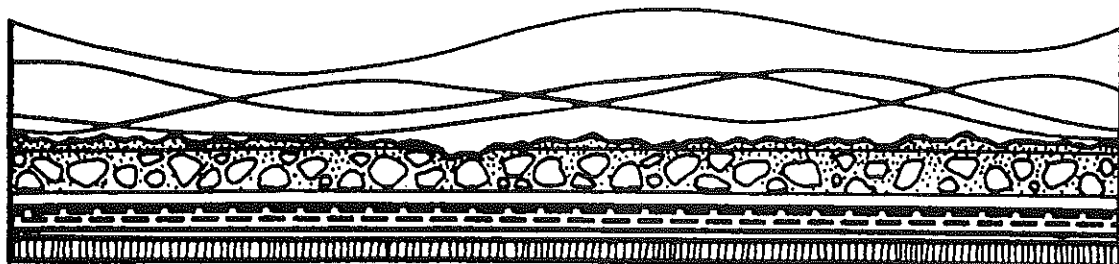
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	11:49am	AIP	8.6	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:12pm	CAP	290	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	3:00pm	CAP	1.943	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:58pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-20

Date Sample Collected: October 26, 2011
Time Sample Collected: 10:35am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117363

Received Temperature:

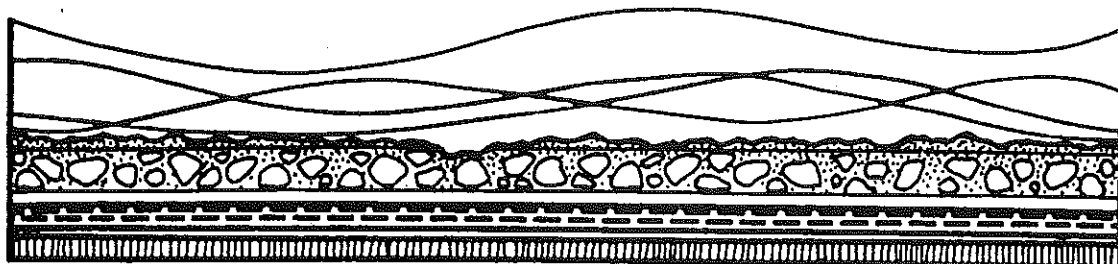
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	11:52pm	AIP	43	2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:11pm	CAP	100	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	3:00pm	CAP	1.423	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:56pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-26

Date Sample Collected: October 26, 2011
Time Sample Collected: 11:20am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117364

Received Temperature:

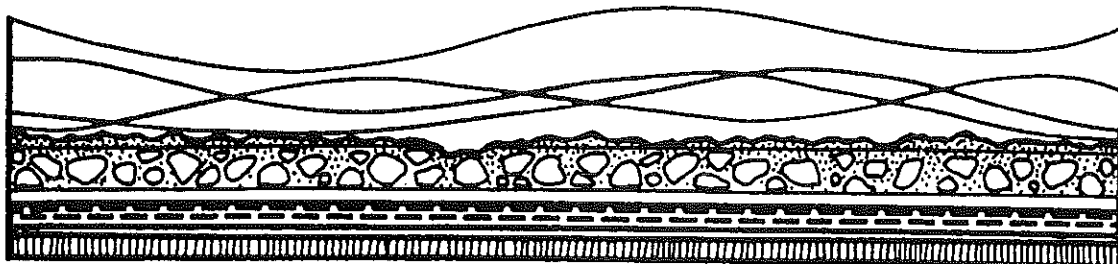
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	11:23am	AIP	13	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:09pm	CAP	195	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:30pm	CAP	2.092	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:54pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-25

Date Sample Collected: October 26, 2011
Time Sample Collected: 12:10pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117365

Received Temperature:

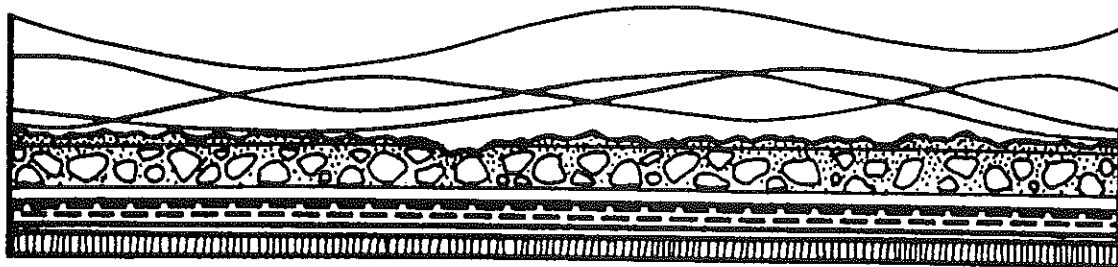
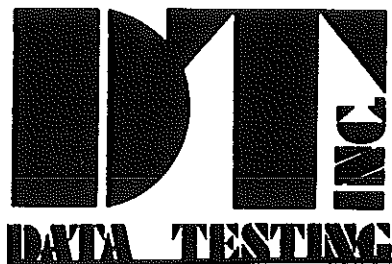
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>	<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011 10:57am	AIP	5.6	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011 12:07pm	CAP	600	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011 2:30pm	CAP	0.474	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011 1:52pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-19

Date Sample Collected: October 26, 2011
Time Sample Collected: 1:25pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117367

Received Temperature:

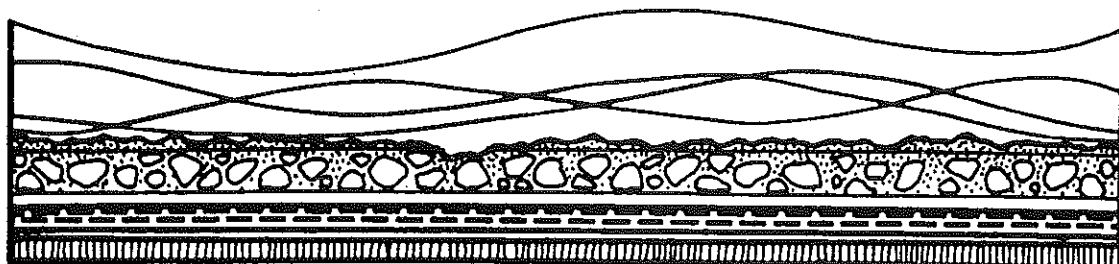
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	6:42pm	AIP	12	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:03pm	CAP	275	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:30pm	CAP	2.159	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:44pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-18

Date Sample Collected: October 26, 2011
Time Sample Collected: 2:00pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117368

Received Temperature:

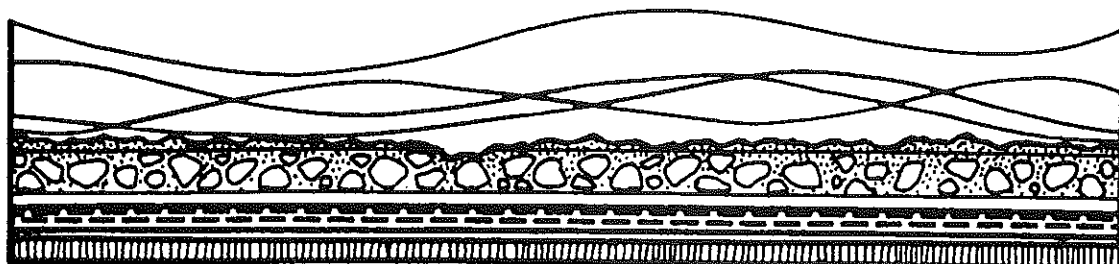
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>	<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011 6:16pm	AIP	7.2	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011 12:01pm	CAP	115	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011 2:30pm	CAP	2.586	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011 6:42pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 28, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-17

Date Sample Collected: October 26, 2011
Time Sample Collected: 12:40pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117366

Received Temperature:

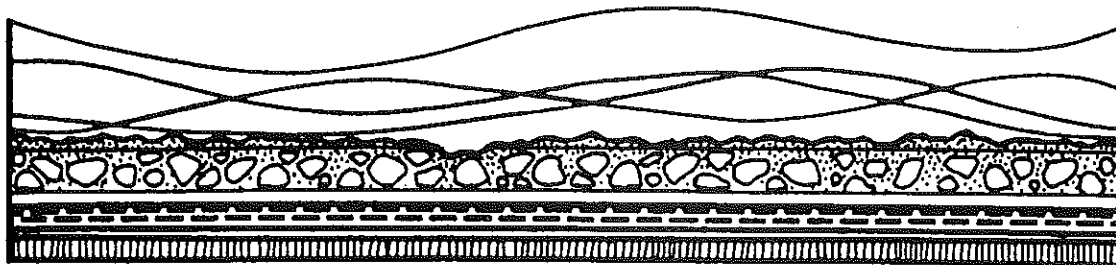
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/14/2011	10:31am	AIP	11	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	12:05pm	CAP	350	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	2:30pm	CAP	1.128	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:50pm	AIP	1.1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-2

Date Sample Collected: October 26, 2011
Time Sample Collected: 5:20pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117388

Received Temperature:

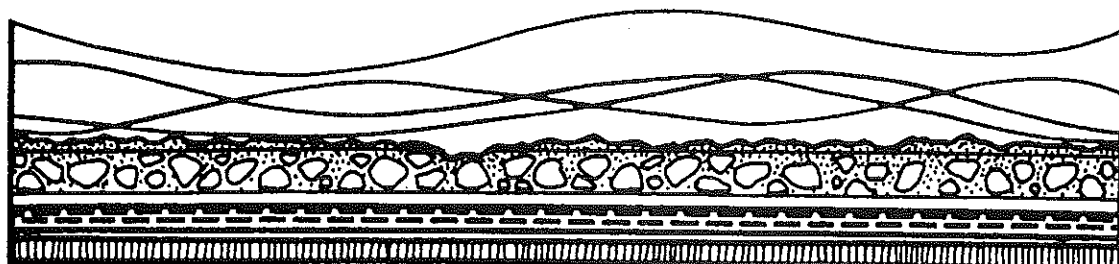
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/10/2011	10:48pm	AIP	18	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:20am	CAP	18	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:00pm	CAP	1.091	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:22pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-11

Date Sample Collected: October 26, 2011
Time Sample Collected: 4:15pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117386

Received Temperature:

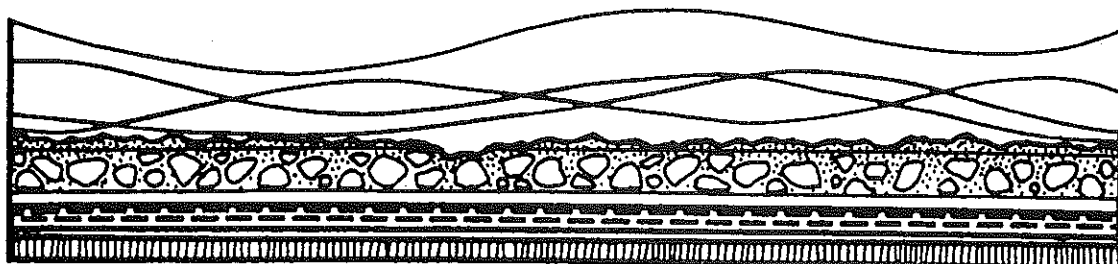
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/10/2011	11:14pm	AIP	18	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:23am	CAP	40	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:00pm	CAP	0.269	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	11:40pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-12

Date Sample Collected: October 26, 2011
Time Sample Collected: 4:50pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117387

Received Temperature:

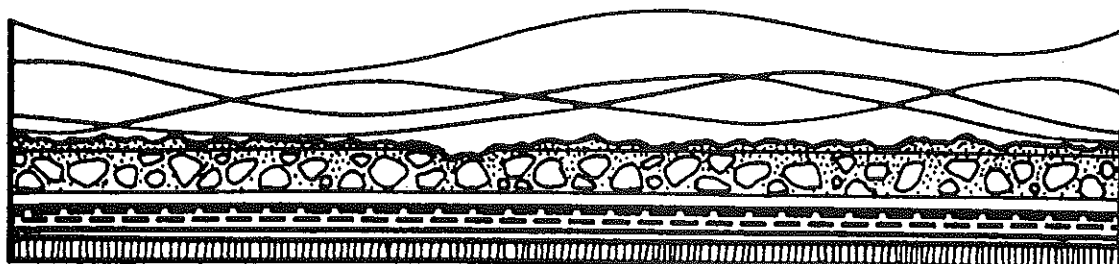
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/10/2011	11:14pm	AIP	17	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:21am	CAP	32	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:00pm	CAP	0.510	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:38pm	AIP	<1	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-37

Date Sample Collected: October 26, 2011
Time Sample Collected: 3:45pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117385

Received Temperature:

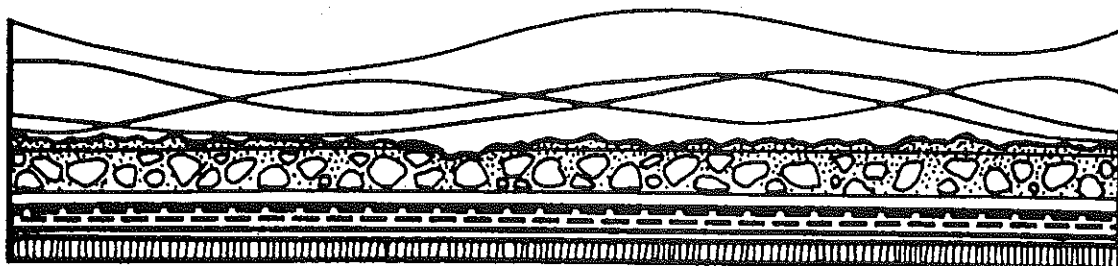
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	8:06am	AIP	18	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:24am	CAP	30	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:00pm	CAP	0.117	0.3	95.1	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:42pm	AIP	2	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-38

Date Sample Collected: October 26, 2011
Time Sample Collected: 3:10pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117384

Received Temperature:

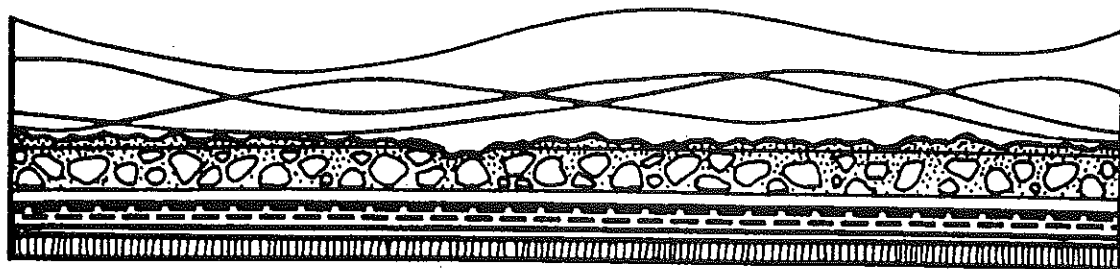
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	1:49pm	AIP	12	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:25am	CAP	40	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:00pm	CAP	0.119	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:44pm	AIP	37	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-15

Date Sample Collected: October 26, 2011
Time Sample Collected: 2:35pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117383

Received Temperature:

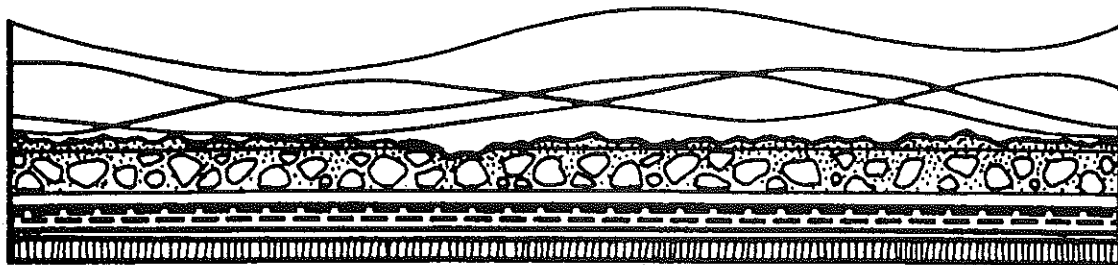
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	2:15am	AIP	2.6	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:26am	CAP	40	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:30pm	CAP	0.113	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:46pm	AIP	1.4	1	104.0	6.90

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-66

Date Sample Collected: October 26, 2011
Time Sample Collected: 9:55am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117376

Received Temperature:

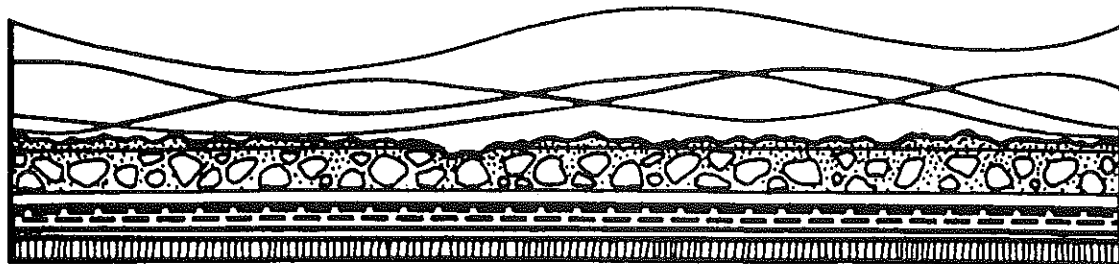
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	8:58pm	AIP	10	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:47am	CAP	330	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:30pm	CAP	4.3	0.3	93.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:04pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	95.8	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-67

Date Sample Collected: October 26, 2011
Time Sample Collected: 11:15am
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117377

Received Temperature:

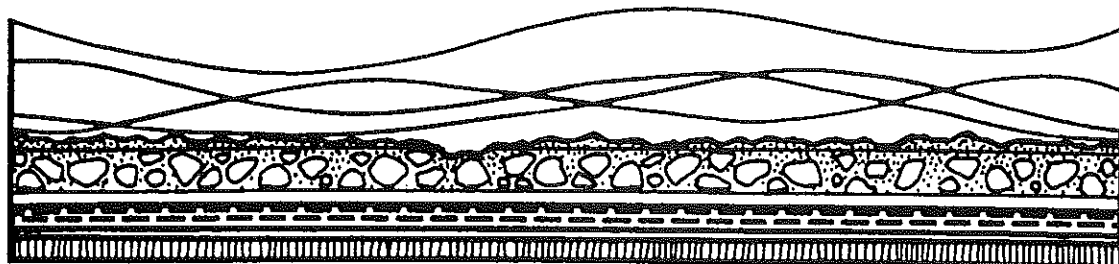
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	7:15pm	AIP	20	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:45pm	CAP	60	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:00pm	CAP	6.83	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	1:02pm	AIP	2.3	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	95.8	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-46

Date Sample Collected: October 26, 2011
Time Sample Collected: 12:00pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117378

Received Temperature:

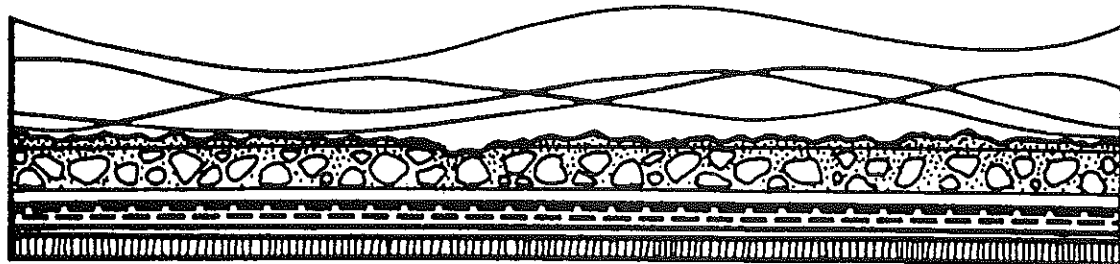
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	6:49pm	AIP	0.65	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:43am	CAP	290	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:00pm	CAP	18.53	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:56pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	98.5	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-40

Date Sample Collected: October 26, 2011
Time Sample Collected: 1:05pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117379

Received Temperature:

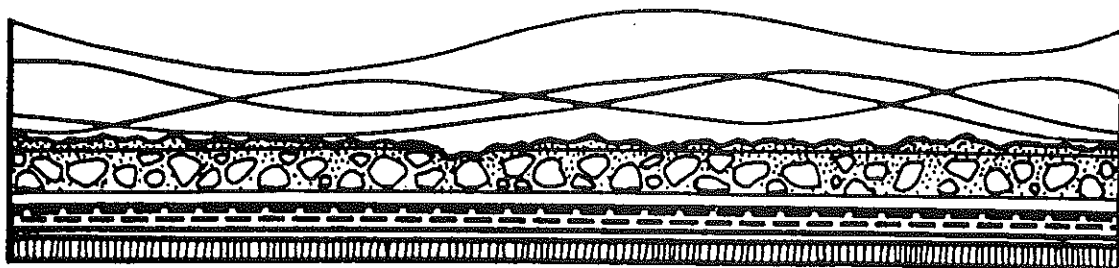
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	6:23pm	AIP	3.7	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:41am	CAP	260	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	1:00pm	CAP	15.38	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:54pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	98.5	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-39

Date Sample Collected: October 26, 2011
Time Sample Collected: 2:05pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117380

Received Temperature:

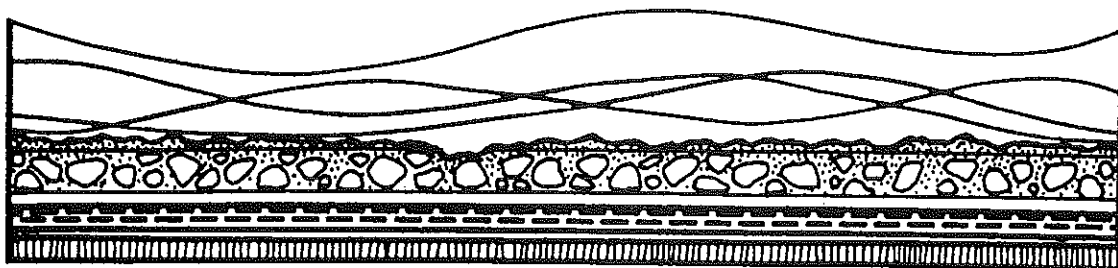
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	5:57pm	AIP	1.7	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:40am	CAP	350	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:30pm	CAP	3.07	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:52pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	95.8	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-34

Date Sample Collected: October 26, 2011
Time Sample Collected: 3:25pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117381

Received Temperature:

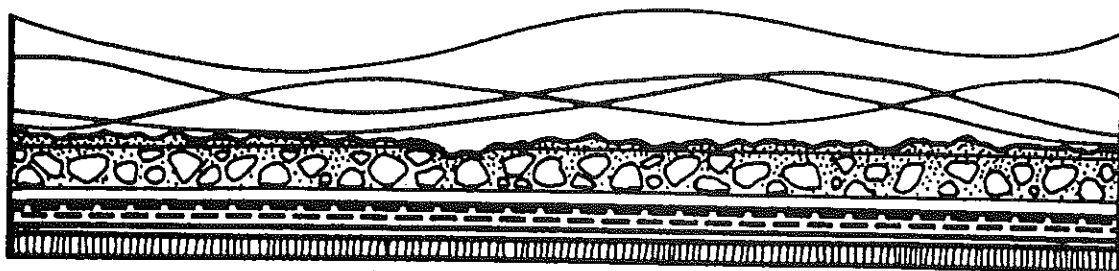
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	3:06am	AIP	4.8	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:29am	CAP	300	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:30pm	CAP	6.79	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:50pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	95.8	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



November 30, 2011

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-31

Date Sample Collected: October 26, 2011
Time Sample Collected: 4:55pm
Sample Collected By: ERM Southwest

Date Sample Received: October 27, 2011
Time Sample Received: 11:00am
Sample Received By: C Peterson

Sample #: 20117382

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	11/11/2011	2:40am	AIP	37	0.2	97.5	0.328
Chloride	4500-CL	11/2/2011	11:27am	CAP	140	3		0.0
Nitrogen, Nitrate	4500-E	10/31/2011	12:30pm	CAP	0.450	0.3	95.0	2.8
Potassium *	EPA 3010A 6010C	11/11/2011	12:48pm	AIP	<1	1	104.0	6.90
Ferrous Iron *	SM 3500- Fe B	11/16/2011	9:00am	AIP	<0.007	0.007	95.8	4.19

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

Spring 2012



3434 Country Club Avenue
P.O. Box 1507
Fort Smith, AR 72902
(479) 649-8378

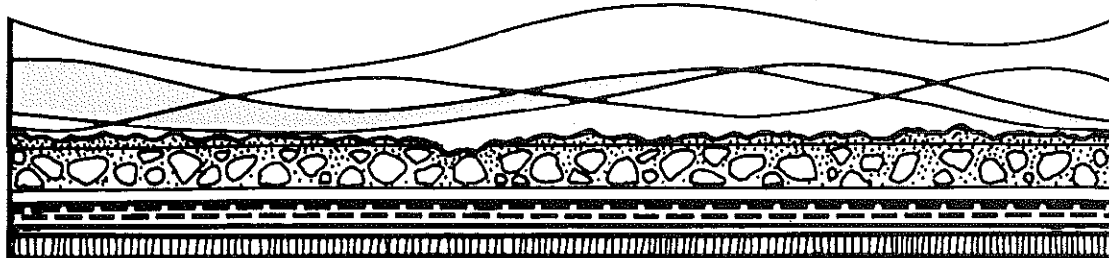
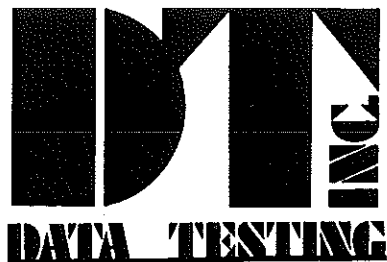
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 37569
Date 05/22/2012

Project **ERM SOUTHWEST**

Analysis of Six (6) Water Samples received on April 20, 2012, for ERM Southwest, Houston, Texas (MW-28, TMW-9, ITMW-18, ITMW-14, ITMW-13, ITMW-17)

	Units	Rate	Billed Amount
Nitrate Nitrogens	6.00	20.00	120.00
Chloride Tests	6.00	15.00	90.00
Potassium Tests	6.00	23.00	138.00
Sulfate Tests	6.00	20.00	120.00
Invoice total			468.00



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-17

Date Sample Collected: April 19, 2012
Time Sample Collected: 10:40am
Sample Collected By: ERM Southwest

Date Sample Received: April 20, 2012
Time Sample Received: 1:43pm
Sample Received By: C Peterson

Sample #: 20121989

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/1/2012	7:55am	AIP	4	0.2	94.9	2.80
Chloride	4500-CL	4/25/2012	2:16pm	CAP	237	3		0.0
Nitrogen, Nitrate	4500-E	4/20/2012	3:40pm	CAP	0.662	0.3		11.4
Potassium *	EPA 3010A 6010C	5/2/2012	8:46pm	AIP	<1	1	96.8	2.88

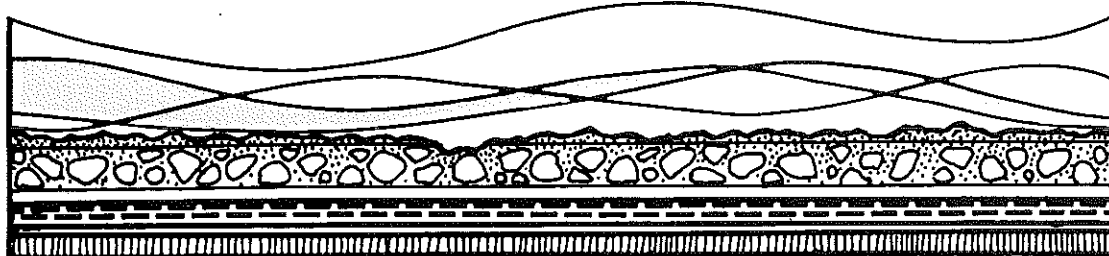
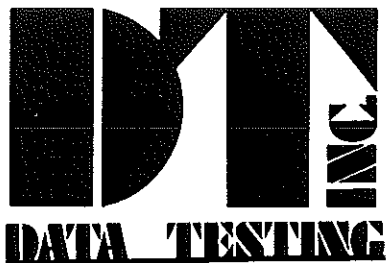
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-13

Date Sample Collected: April 19, 2012

Time Sample Collected: 9:50am

Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012

Time Sample Received: 11:35am

Sample Received By: C Peterson

Sample #: 20121988

Received Temperature:

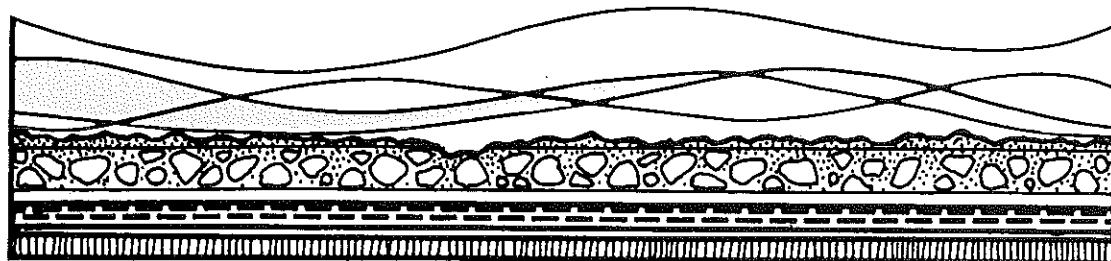
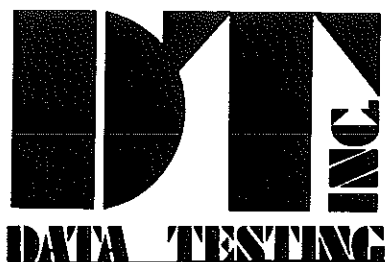
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/1/2012	10:12am	AIP	8.1	0.2	94.9	2.80
Chloride	4500-CL	4/25/2012	2:17pm	CAP	34	3		0.0
Nitrogen, Nitrate	4500-E	4/20/2012	3:30pm	CAP	4.69	0.3		11.4
Potassium *	EPA 3010A 6010C	5/2/2012	9:05pm	AIP	<1	1	96.8	2.88

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-14

Date Sample Collected: April 19, 2012
Time Sample Collected: 9:15am
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121987

Received Temperature:

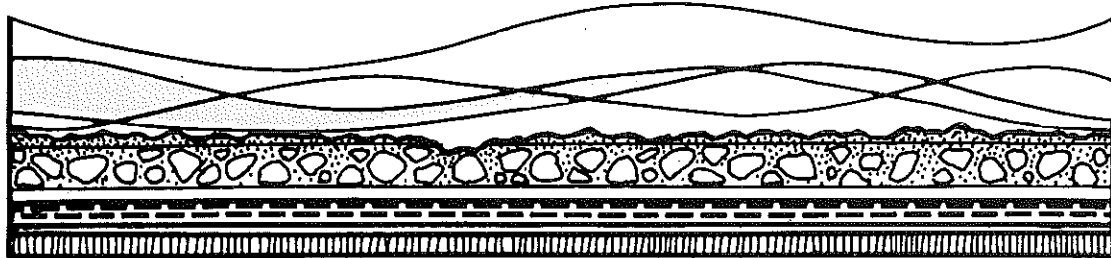
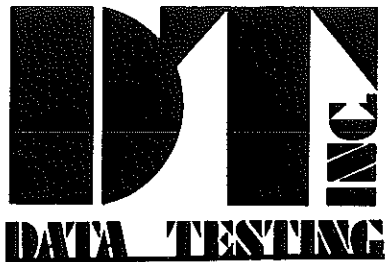
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/1/2012	1:03pm	AIP	12	0.2	94.9	2.80
Chloride	4500-CL	4/25/2012	2:18pm	CAP	11	3		0.0
Nitrogen, Nitrate	4500-E	4/20/2012	3:25pm	CAP	0.681	0.3		11.4
Potassium *	EPA 3010A 6010C	5/2/2012	8:59pm	AIP	<1	1	96.8	2.88

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-18

Date Sample Collected: April 19, 2012

Time Sample Collected: 10:40am

Sample Collected By: ERM Southwest

Date Sample Received: April 20, 2012

Time Sample Received: 1:43pm

Sample Received By: C Peterson

Sample #: 20121986

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/1/2012	7:55pm	AIP	6.8	0.2	94.9	2.80
Chloride	4500-CL	4/25/2012	2:19pm	CAP	120	3		0.0
Nitrogen, Nitrate	4500-E	4/20/2012	3:15pm	CAP	3.35	0.3		11.4
Potassium *	EPA 3010A 6010C	5/2/2012	8:57pm	AIP	<1	1	96.8	2.88

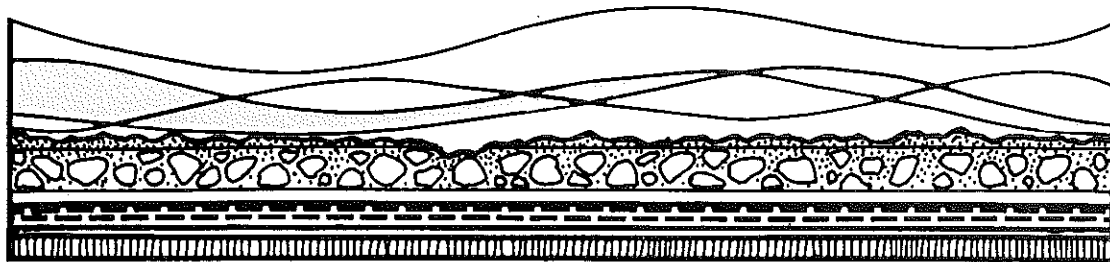
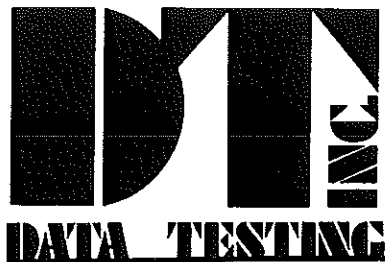
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-19

Date Sample Collected: April 19, 2012
Time Sample Collected: 9:45am
Sample Collected By: ERM Southwest

Date Sample Received: April 20, 2012
Time Sample Received: 1:43pm
Sample Received By: C Peterson

Sample #: 20121985

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/1/2012	6:47pm	AIP	6.3	0.2	94.9	2.80
Chloride	4500-CL	4/25/2012	2:20pm	CAP	300	3		0.0
Nitrogen, Nitrate	4500-E	4/20/2012	3:05pm	CAP	2.004	0.3		11.4
Potassium *	EPA 3010A 6010C	5/2/2012	9:08pm	AIP	1.3	1	96.8	2.80

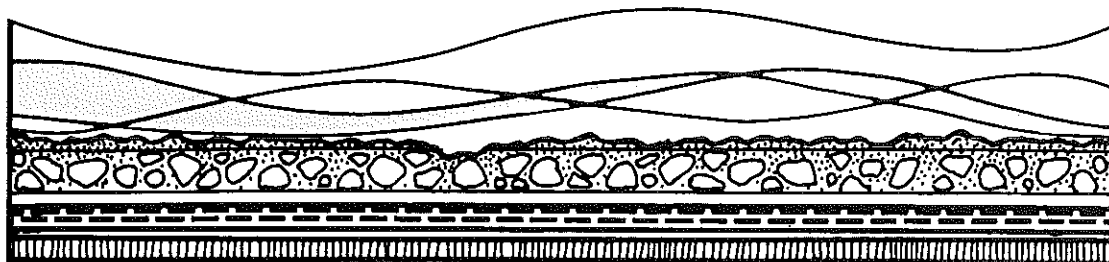
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-28

Date Sample Collected: April 19, 2012

Time Sample Collected: 8:45am

Sample Collected By: ERM Southwest

Date Sample Received: April 20, 2012

Time Sample Received: 1:43pm

Sample Received By: C Peterson

Sample #: 20121984

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/1/2012	9:37pm	AIP	39	0.2	94.9	2.80
Chloride	4500-CL	4/25/2012	2:21pm	CAP	35	3		0.0
Nitrogen, Nitrate	4500-E	4/20/2012	3:00pm	CAP	0.790	0.3		11.4
Potassium *	EPA 3010A 6010C	5/2/2012	9:02pm	AIP	<1	1	96.8	0.896

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



Data Testing, Inc.
3434 Country Club
P. O. Box 1507
Fort Smith, Arkansas 72902
791 649-8378 Fax (479) 649-8486

Company Name:		ERM		Phone #:		281-600-1000																
Address:		15810 Park Ten Place, Suite 300 Houston, TX 77084																				
Project Name or Number:		WMI1P001 <th colspan="2">Purchase Order #:</th> <td colspan="2">0159348 </td>		Purchase Order #:		0159348																
Sampling Personnel Signature(s):		<i>Sara Tomashitis</i>		Printed:		Sara Tomashitis Kaleigh Kimsey																
Sample I.D.	Date	Time	Comp.	Cont. Type			# of Containers	Method Preserved						Sample Matrix						Requested Analysis	Laboratory Control Number	Remarks
				Grab	Plast.	Glass		HNO ₃	NaOH	HCL	Ice	None	Water	Soil	Air	Sludge	Other					
MW-28	4/19/12	0845		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						X	Natural Attenuation			
ITMN-9	4/19/12	0945		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						X	Metals			
ITMN-18	4/19/12	1040		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						X				
ITMN-14	4/19/12	0915		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						X				
ITMN-13	4/19/12	0950		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						X				
ITMN-17	4/19/12	1040		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						X				
Relinquished by:		<i>Sara Tomashitis</i>		Date:	4/19/12	Time:	11:35	Relinquished by:				Date:		Time:								
Received by:				Date:		Time:		Received by:				Date:		Time:								
Relinquished by:				Date:		Time:		Received by Laboratory:		<i>[Signature]</i>		Date:	4-19-12	Time:	1:45							
Comments:																						



3434 Country Club Avenue
P.O. Box 1507
Fort Smith, AR 72902
(479) 649-8378

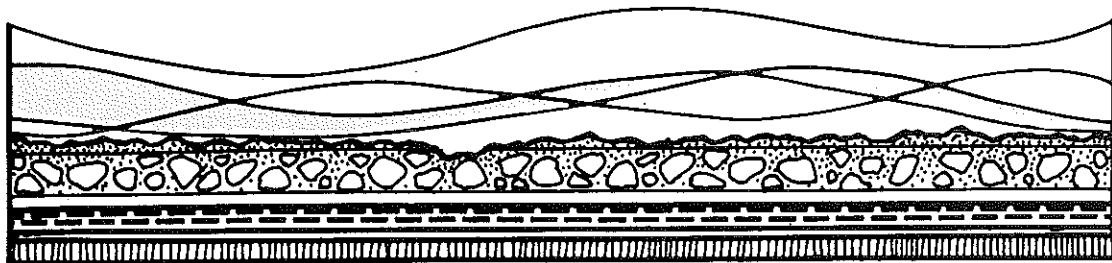
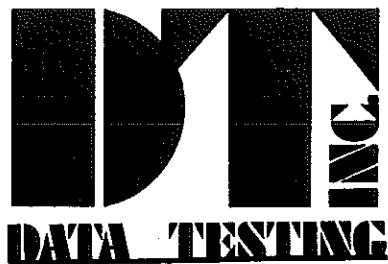
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 37575
Date 05/23/2012

Project **ERM SOUTHWEST**

Analysis of Seven (7) Water Samples received on April 19, 2012, for ERM Southwest, Houston, Texas (MW-37, ITMW-20, MW-30, ITMW-7, IW-78, MW-40, MW-46)

	Units	Rate	Billed Amount
Nitrate Nitrogens	7.00	20.00	140.00
Chloride Tests	7.00	15.00	105.00
Potassium Tests	7.00	23.00	161.00
Sulfate Tests	7.00	20.00	140.00
Invoice total			546.00



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-46

Date Sample Collected: April 18, 2012
Time Sample Collected: 5:05pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: '20121962

Received Temperature:

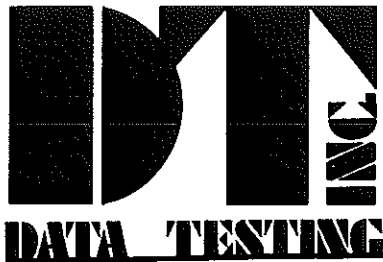
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	2:08pm	AIP	0.68	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:34pm	CAP	240	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	2:45pm	CAP	2.23	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:16pm	AIP	<1	1	101.0	2.92

* Analyzed by American Interplex

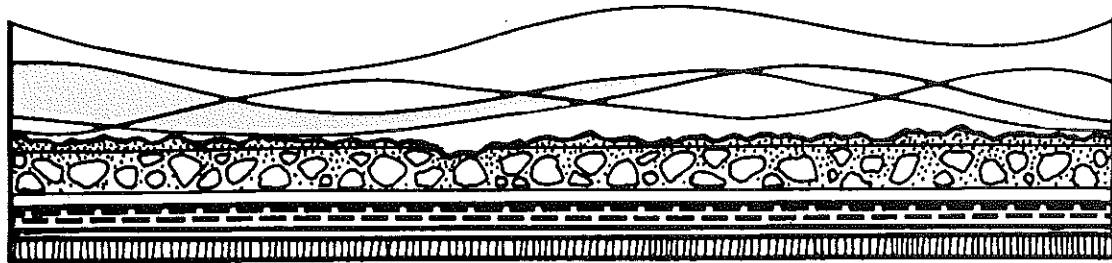
*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012



FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-40

Date Sample Collected: April 18, 2012
Time Sample Collected: 4:10pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121961

Received Temperature:

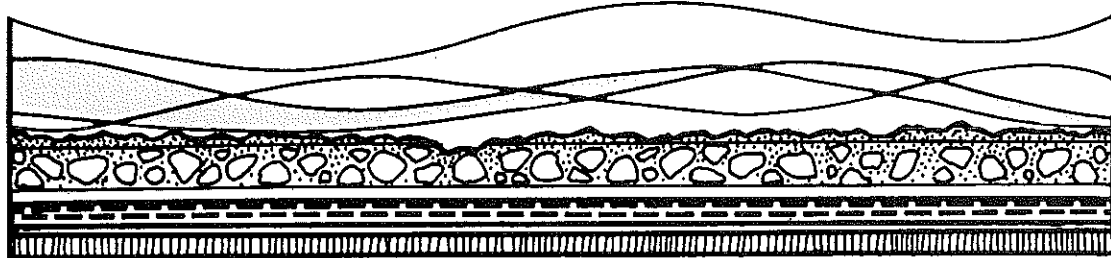
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	1:42pm	AIP	2.5	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:36pm	CAP	260	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	3:00pm	CAP	1.032	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:13pm	AIP	<1	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-78

Date Sample Collected: April 18, 2012
Time Sample Collected: 3:05pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C. Peterson

Sample #: 20121960

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	1:16pm	AIP	16	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:37pm	CAP	100	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	2:05pm	CAP	0.645	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	2:11am	AIP	7.9	1	101.0	2.92

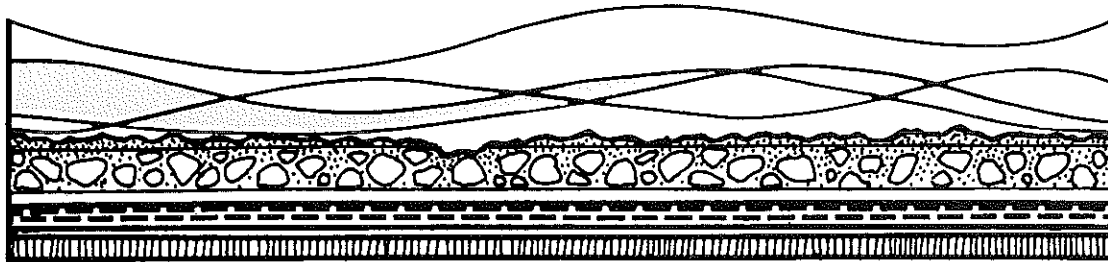
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-7

Date Sample Collected: April 18, 2012
Time Sample Collected: 12:15pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121959

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/2/2012	4:17pm	AIP	13	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:38pm	CAP	300	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	2:30pm	CAP	3.32	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:35am	AIP	<1	1	101.0	2.92

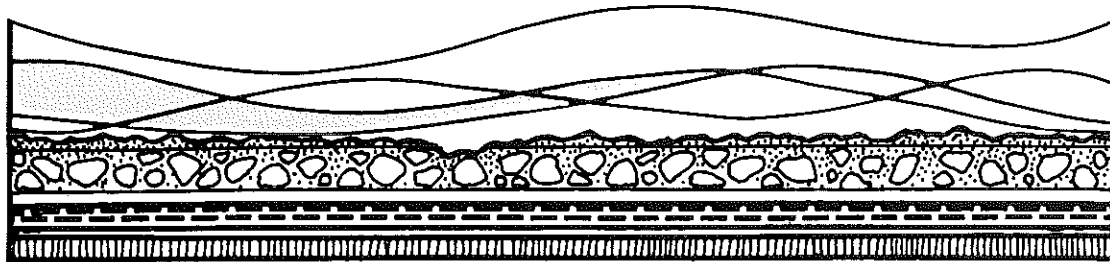
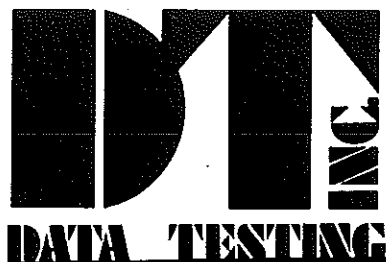
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-30

Date Sample Collected: April 18, 2012
Time Sample Collected: 11:15am
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121958

Received Temperature:

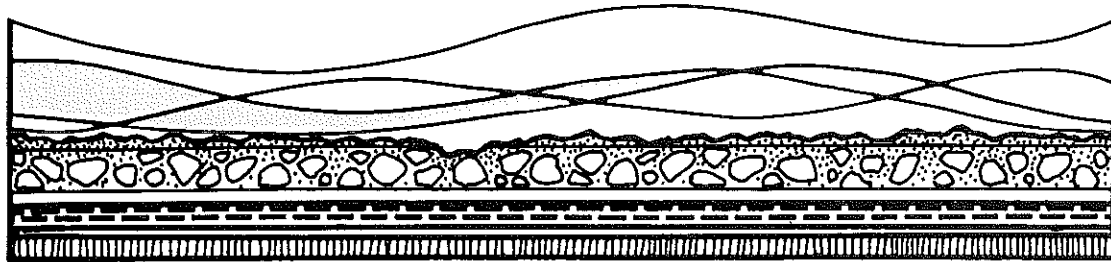
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	1:45am	AIP	5.1	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:39pm	CAP	270	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:50pm	CAP	2.33	0.3		6.6
Potassium *	EPA 3010A 6010C	5/3/2012	9:46pm	AIP	<1	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-37

Date Sample Collected: April 18, 2012
Time Sample Collected: 9:30am
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121956

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/2/2012	6:00pm	AIP	13	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	3:00pm Duplicate	CAP	15 14	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:15pm	CAP	2.28	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:37pm	AIP	3.5	1	101.0	2.92

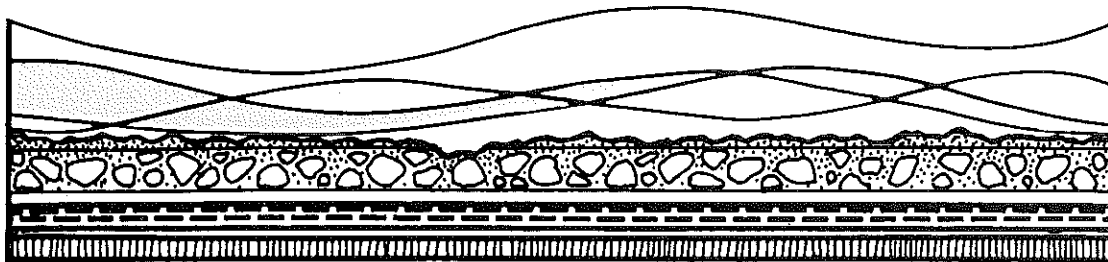
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITWM-20

Date Sample Collected: April 18, 2012

Time Sample Collected: 10:20am

Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012

Time Sample Received: 11:35am

Sample Received By: C Peterson

Sample #: 20121957

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/2/2012	2:59pm	AIP	21	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:41pm	CAP	100	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:20pm	CAP	1.75	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:21pm	AIP	1.1	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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17

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P.O. Box 1507
Fort Smith, AR 72902
(479) 649-8378

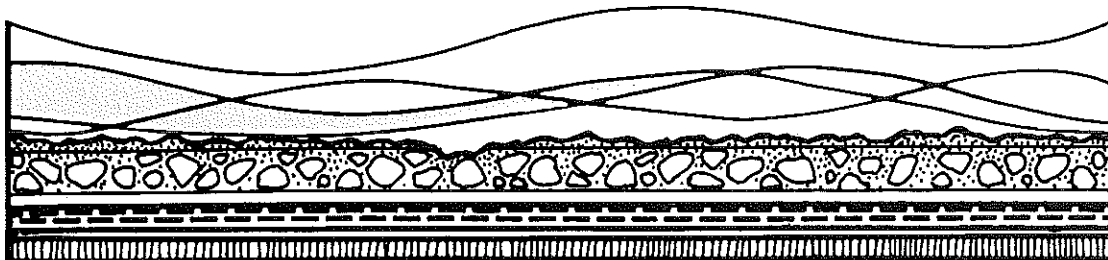
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 37576
Date 05/23/2012

Project **ERM SOUTHWEST**

Analysis of Seven (7) Water Samples for ERM Southwest, Houston, Texas, received on April 18, 2012 (ITMW-3, ITMW-5, MW-25, IW-74, IW-80, ITMW-2, ITMW-9)

	Units	Rate	Billed Amount
Nitrate Nitrogens	7.00	20.00	140.00
Chloride Tests	7.00	15.00	105.00
Potassium Tests	7.00	23.00	161.00
Sulfate Tests	7.00	20.00	140.00
Invoice total			546.00



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-3

Date Sample Collected: April 17, 2012
Time Sample Collected: 9:55am
Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012
Time Sample Received: 11:30am
Sample Received By: C Peterson

Sample #: 20121899

Received Temperature:

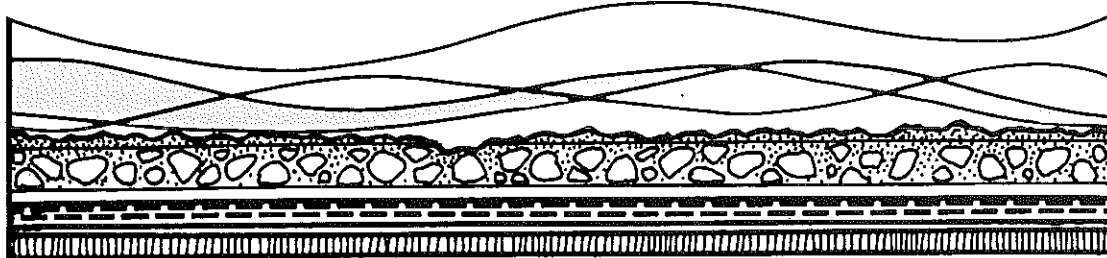
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	10:08am	AIP	24	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:33pm	CAP	20	3		0.0
		Duplicate			20			
Nitrogen, Nitrate	4500-E	4/18/2012	2:00pm	CAP	5.35	0.3		0.0
Potassium *	EPA 3010A 6010C	5/1/2012	9:04pm	AIP	<1	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-5

Date Sample Collected: April 17, 2012

Time Sample Collected: 11:10am

Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012

Time Sample Received: 11:30am

Sample Received By: C Peterson

Sample #: 20121900

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	10:34am	AIP	28	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:32pm	CAP	120	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	4:15pm	CAP	8.24	0.3		0.0
Potassium *	EPA 3010A 6010C	5/1/2012	9:07pm	AIP	<1	1	94.4	2.80

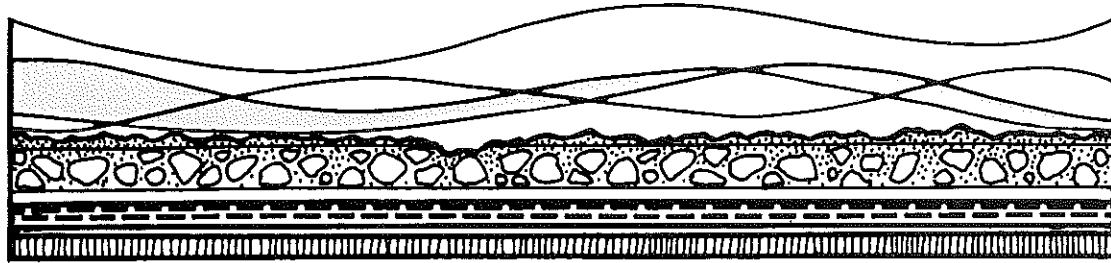
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-25

Date Sample Collected: April 17, 2012

Time Sample Collected: 12:20pm

Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012

Time Sample Received: 11:30am

Sample Received By: C Peterson

Sample #: 20121901

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	7:59am	AIP	2.3	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:31pm	CAP	400	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	4:00pm	CAP	4.92	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	7:0pm	AIP	<1	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

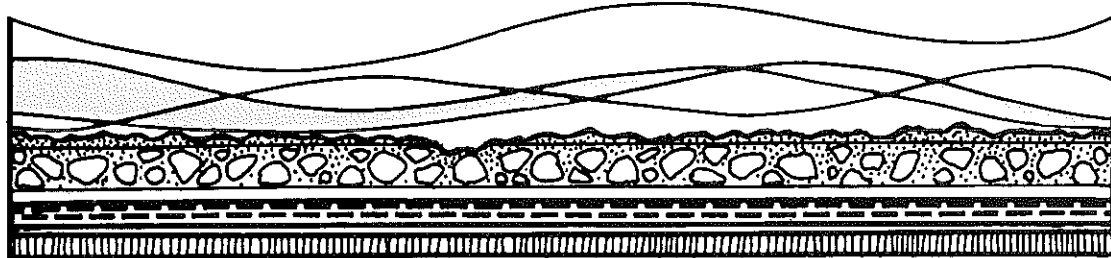
Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012



FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-80

Date Sample Collected: April 17, 2012
Time Sample Collected: 6:05pm
Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012
Time Sample Received: 11:30am
Sample Received By: C Peterson

Sample #: 20121903

Received Temperature:

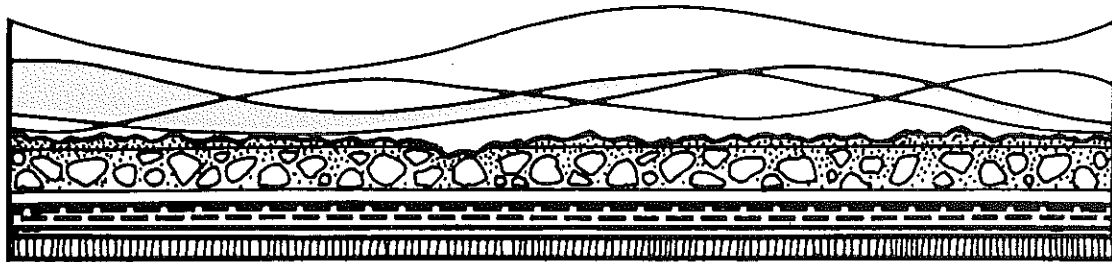
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	4:32pm	AIP	9.9	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:29pm	CAP	100	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	2:50pm	CAP	2.76	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	5:32am	AIP	1.3	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITWM-2

Date Sample Collected: April 17, 2012
Time Sample Collected: 9:50am
Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012
Time Sample Received: 11:30am
Sample Received By: C Peterson

Sample #: 20121904

Received Temperature:

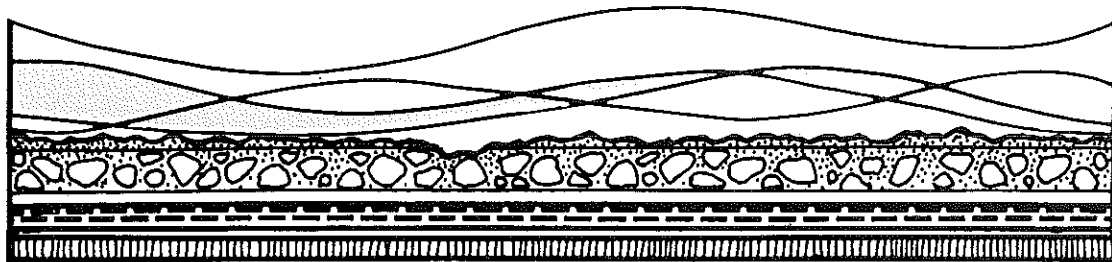
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	7:59am	AIP	18	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:28pm	CAP	140	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	2:40pm	CAP	4.63	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	8:58am	AIP	<1	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-9

Date Sample Collected: April 17, 2012
Time Sample Collected: 10:57am
Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012
Time Sample Received: 11:30am
Sample Received By: C Peterson

Sample #: 20121905

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	7:33am	AIP	32	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:27pm	CAP	100	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	2:30pm	CAP	12.33	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	8:55pm	AIP	<1	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

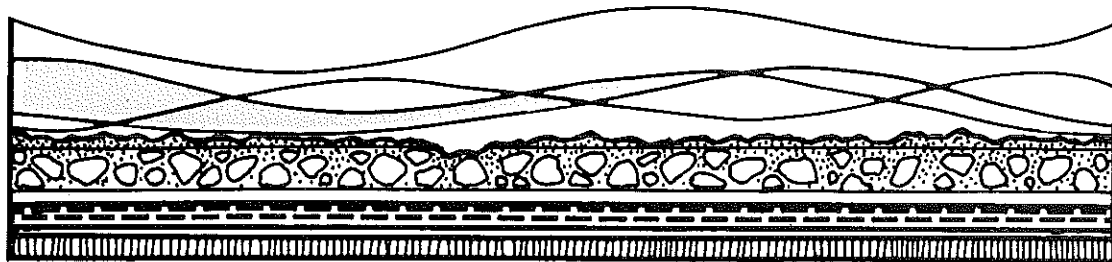
Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012



FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-74

Date Sample Collected: April 17, 2012

Time Sample Collected: 4:10pm

Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012

Time Sample Received: 11:30am

Sample Received By: C Peterson

Sample #: 20121902

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	6:16pm	AIP	3.8	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:30pm	CAP	166	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	3:25pm	CAP	0.618	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	5:32pm	AIP	3.8	1	94.4	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



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Fort Smith, AR 72902
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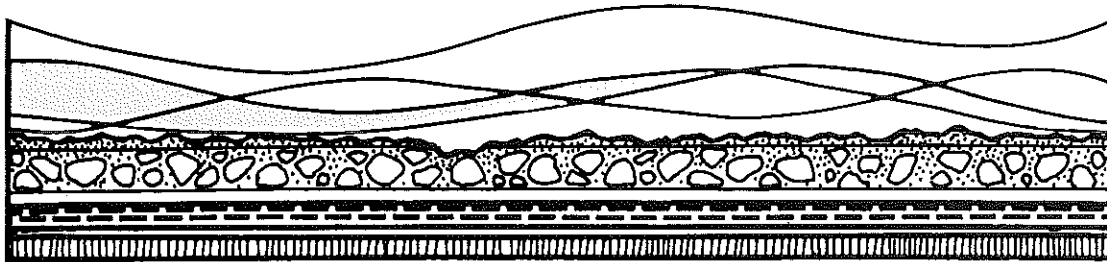
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 37577
Date 05/23/2012

Project **ERM SOUTHWEST**

Analysis of Five (5) Water Samples received on April 18, 2012, for ERM Southwest, Houston, Texas (ITMW-6, ITMW-21, IW-73, IW-77, IW-79)

	Units	Rate	Billed Amount
Nitrate Nitrogens	5.00	20.00	100.00
Chloride Tests	5.00	15.00	75.00
Potassium Tests	5.00	23.00	115.00
Sulfate Tests	5.00	20.00	100.00
Invoice total			390.00



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-6

Date Sample Collected: April 17, 2012
Time Sample Collected: 11:50am
Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012
Time Sample Received: 11:30am
Sample Received By: C Peterson

Sample #: 20121906

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	4:55pm	AIP	97	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:26pm	CAP	150	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	4:00pm	CAP	11.21	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	5:29pm	AIP	<1	1	94.4	2.80

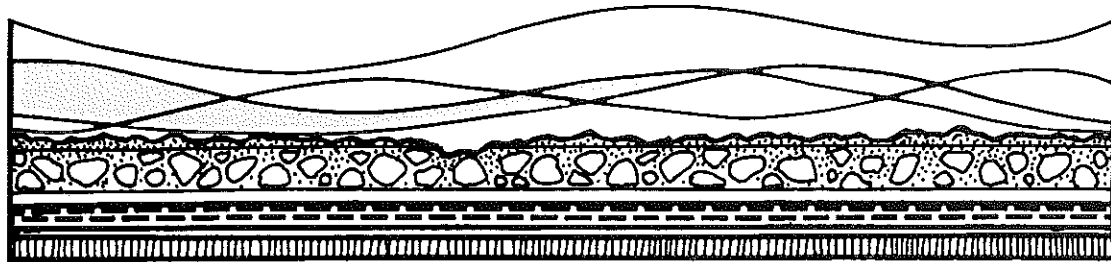
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-77

Date Sample Collected: April 17, 2012
Time Sample Collected: 5:33pm
Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012
Time Sample Received: 11:30am
Sample Received By: C Peterson

Sample #: 20121909

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	7:07am	AIP	6.7	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:23pm	CAP	130	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	2:10pm	CAP	2.82	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	5:38pm	AIP	1.3	1	94.9	2.80

* Analyzed by American Interplex

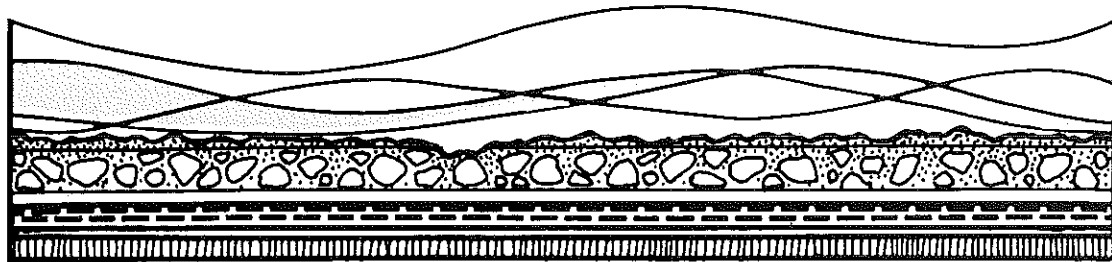
*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012



FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: IW-73

Date Sample Collected: April 17, 2012

Time Sample Collected: 4:30pm

Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012

Time Sample Received: 11:30am

Sample Received By: C Peterson

Sample #: 20121908

Received Temperature:

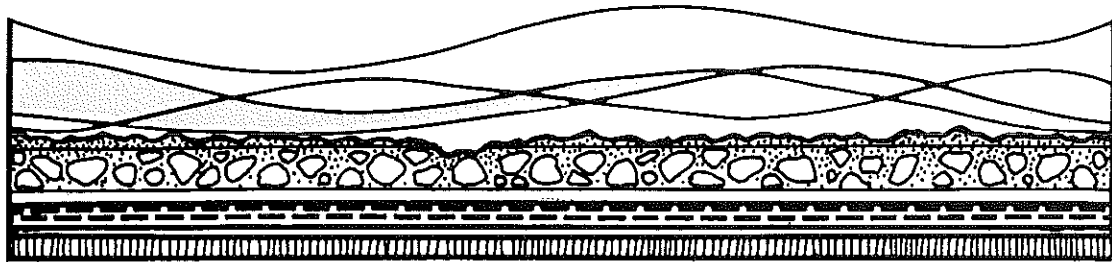
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	4:58pm	AIP	6.3	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:24pm	CAP	140	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	3:00pm	CAP	0.735	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	5:22pm	AIP	4.6	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-21

Date Sample Collected: April 17, 2012

Time Sample Collected: 12:45pm

Sample Collected By: ERM Southwest

Date Sample Received: April 18, 2012

Time Sample Received: 11:30am

Sample Received By: C Peterson

Sample #: 20121907

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	4/26/2012	6:42am	AIP	3.8	0.2	96.8	0.896
Chloride	4500-CL	4/25/2012	2:25pm	CAP	550	3		0.0
Nitrogen, Nitrate	4500-E	4/18/2012	4:30pm	CAP	1.813	0.3		11.4
Potassium *	EPA 3010A 6010C	5/1/2012	5:35pm	AIP	<1	1	94.9	2.80

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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32

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(479) 649-8378

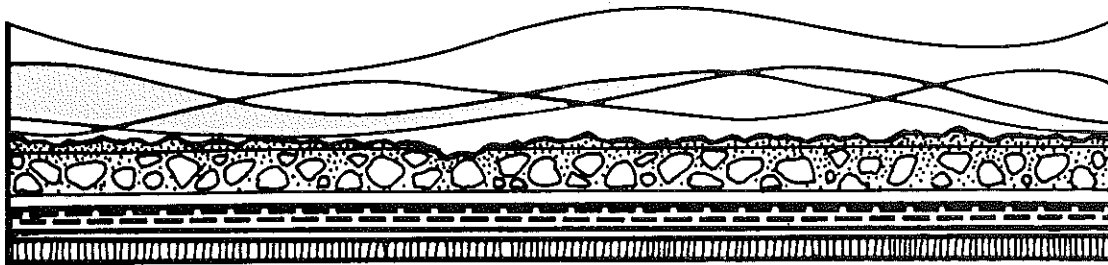
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 37570
Date 05/22/2012

Project **ERM SOUTHWEST**

Analysis of Four (4) Water Samples received on April 19, 2012, for ERM Southwest, Houston, Texas (MW-70, RW-69, ITMW-16, MW-23)

	Units	Rate	Billed Amount
Nitrate Nitrogens	4.00	20.00	80.00
Chloride Tests	4.00	15.00	60.00
Potassium Tests	4.00	23.00	92.00
Sulfate Tests	4.00	20.00	80.00
Invoice total			312.00



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-23

Date Sample Collected: April 18, 2012
Time Sample Collected: 6:45pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121948

Received Temperature:

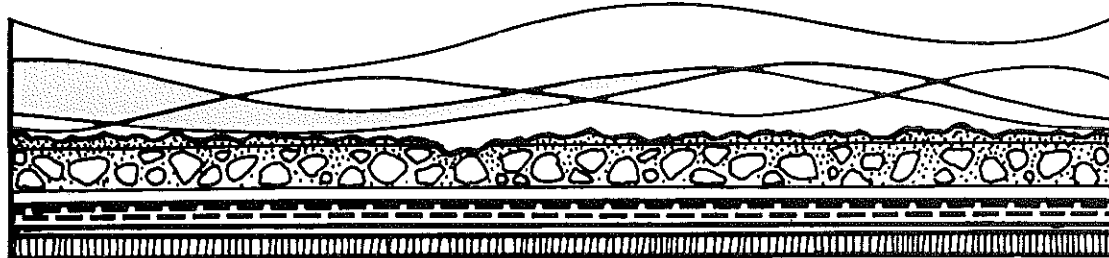
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	2:37pm	AIP	14	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:53pm	CAP	220	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	2:00pm	CAP	1.074	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:51pm	AIP	<1	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-16

Date Sample Collected: April 18, 2012
Time Sample Collected: 5:50pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121947

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	2:11pm	AIP	9.6	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:54pm	CAP	24	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:25pm	CAP	1.12	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:48pm	AIP	3.8	1	101.0	2.92

* Analyzed by American Interplex

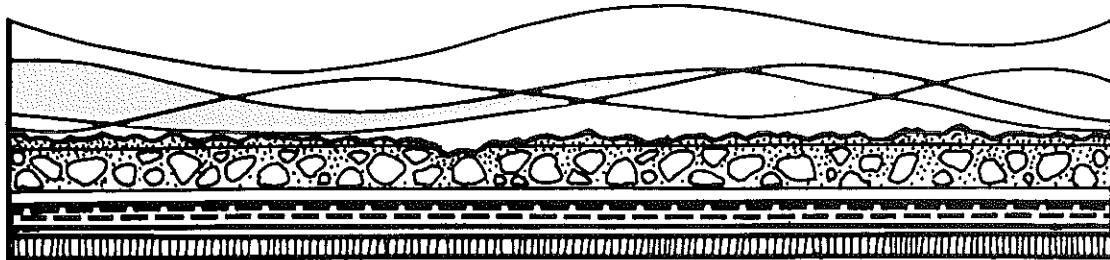
*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012



FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: RW-69

Date Sample Collected: April 18, 2012
Time Sample Collected: 4:40pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121946

Received Temperature:

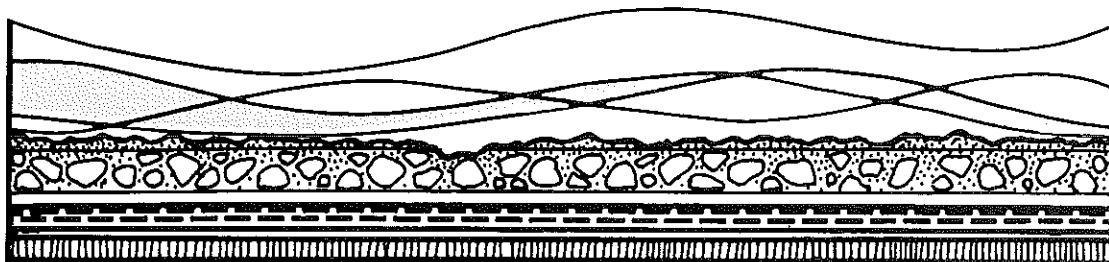
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	3:28am	AIP	6	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:56pm	CAP	300	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:35pm	CAP	0.119	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	2:11am	AIP	1.3	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-70

Date Sample Collected: April 18, 2012

Time Sample Collected: 3:35pm

Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012

Time Sample Received: 11:35am

Sample Received By: C Peterson

Sample #: 20121945

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	1:19pm	AIP	1.3	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:57pm	CAP	320	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:45pm	CAP	0.198	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:43pm	AIP	1.5	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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38

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(479) 649-8378

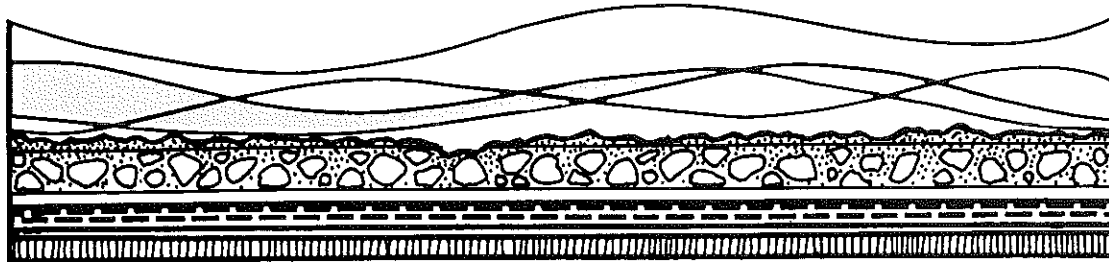
ERM SOUTHWEST
15810 PARK TEN PLACE, SUITE 300
HOUSTON, TX 77084

Invoice number 37571
Date 05/22/2012

Project **ERM SOUTHWEST**

Analysis of Seven (7) Water Samples received on April 19, 2012, for ERM Southwest, Houston, Texas (MW-24, MW-27, MW-22, ITMW-1, MW-26, MW-29, MW-71)

	Units	Rate	Billed Amount
Nitrate Nitrogens	7.00	20.00	140.00
Chloride Tests	7.00	15.00	105.00
Potassium Tests	7.00	23.00	161.00
Sulfate Tests	7.00	20.00	140.00
Invoice total			546.00



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-71

Date Sample Collected: April 18, 2012
Time Sample Collected: 2:50pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121955

Received Temperature:

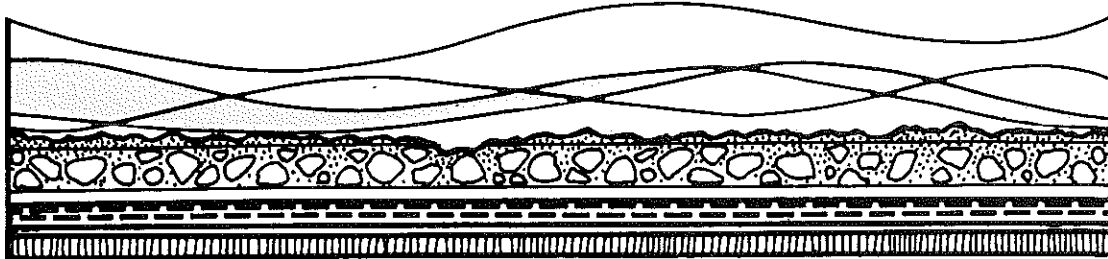
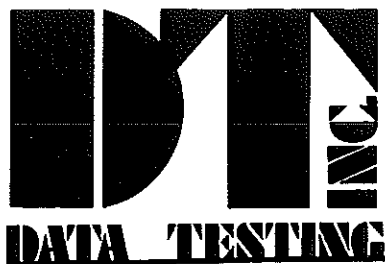
<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	6:03am	AIP	4.3	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:43pm	CAP	250	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:30pm	CAP	0.310	0.3		6.6
Potassium *	EPA 3010A 6010C	5/3/2012	2:14pm	AIP	<1	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."



May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-29

Date Sample Collected: April 18, 2012
Time Sample Collected: 12:50pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121954

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	8:28am	AIP	60	2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:44pm	CAP	147	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	2:10pm	CAP	3.32	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:18pm	AIP	<1	1	101.0	2.92

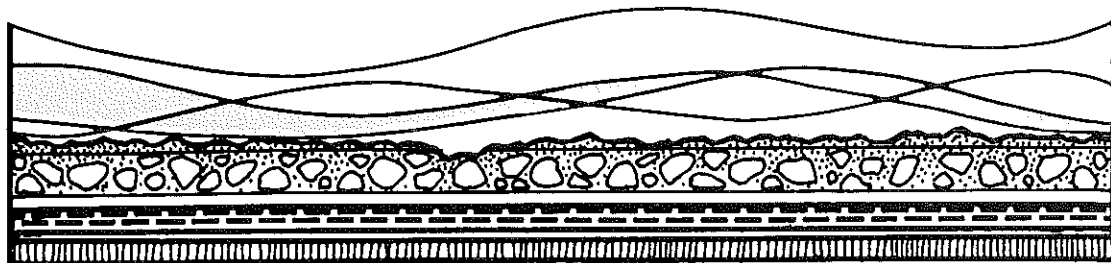
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-26

Date Sample Collected: April 18, 2012
Time Sample Collected: 11:22am
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121953

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/2/2012	3:25pm	AIP	8.8	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:46pm	CAP	380	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:10pm	CAP	4.73	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:29pm	AIP	<1	1	101.0	2.92

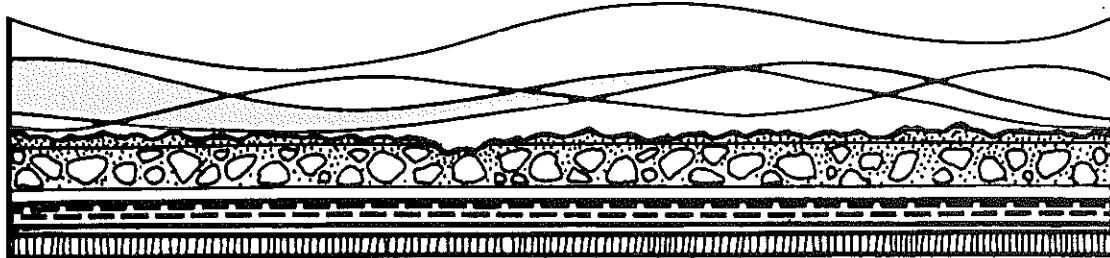
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: ITMW-1

Date Sample Collected: April 18, 2012
Time Sample Collected: 10:15am
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121952

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	3:03pm	AIP	16	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:47pm	CAP	254	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:05pm	CAP	4.24	0.3		6.6
Potassium *	EPA 3010A 6010C	5/3/2012	2:08pm	AIP	5.4	1	101.0	2.92

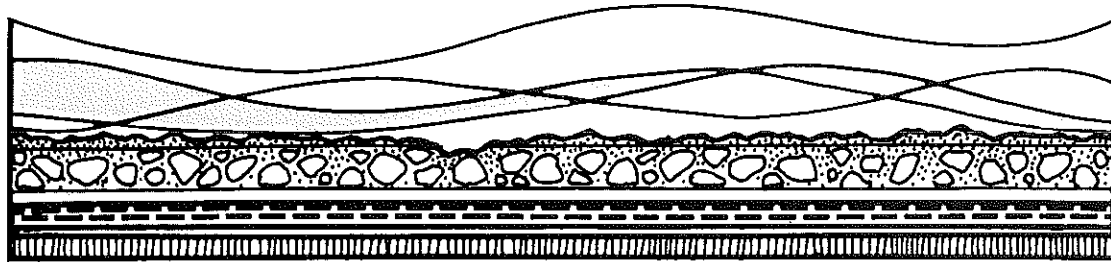
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-22

Date Sample Collected: April 18, 2012
Time Sample Collected: 9:07am
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121951

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/2/2012	12:24pm	AIP	15	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:50pm	CAP	20	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:40pm	CAP	0.078	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	9:40pm	AIP	<1	1	101.0	2.92

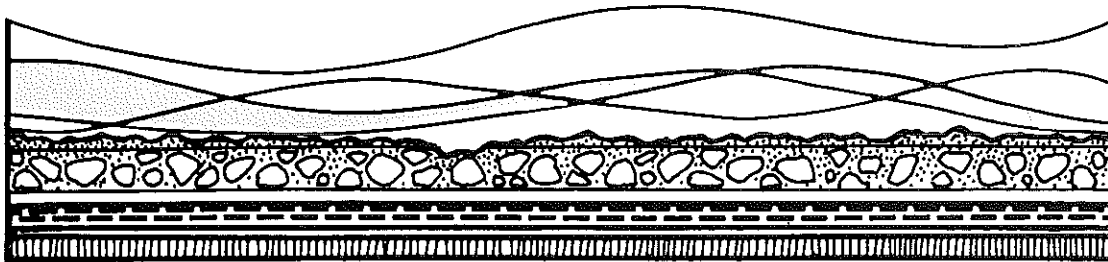
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-27

Date Sample Collected: April 18, 2012
Time Sample Collected: 6:50pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 20121950

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/2/2012	9:32pm	AIP	11	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:52pm	CAP	20	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:55pm	CAP	1.58	0.3		6.6
Potassium *	EPA 3010A 6010C	5/2/2012	1:55am	AIP	1.3	1	101.0	2.92

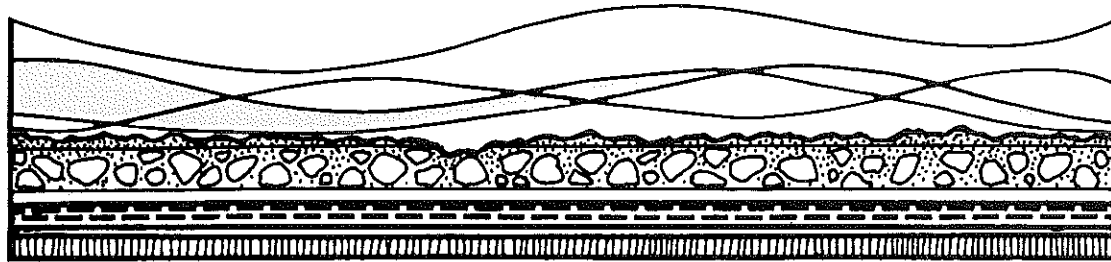
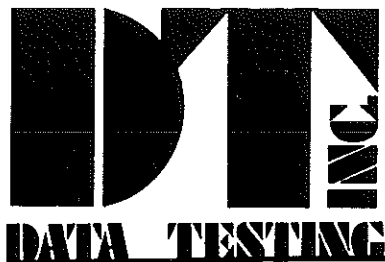
* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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May 21, 2012

FOR: ERM Southwest
15810 Park Ten Place, Suite 300
Houston, Texas 77084

Sample Identification: MW-24

Date Sample Collected: April 18, 2012
Time Sample Collected: 5:50pm
Sample Collected By: ERM Southwest

Date Sample Received: April 19, 2012
Time Sample Received: 11:35am
Sample Received By: C Peterson

Sample #: 210121949

Received Temperature:

<u>Parameter</u>	<u>Method Number</u>	<u>Date & Time Analyzed</u>		<u>By</u>	<u>Reported* Value</u>	<u>MDL mg/l</u>	<u>% Recovery</u>	<u>% RDP</u>
Sulfates *	EPA 9056A	5/3/2012	6:29am	AIP	8.1	0.2	101.0	0.760
Chloride	4500-CL	4/25/2012	2:58pm	CAP	265	3		6.9
Nitrogen, Nitrate	4500-E	4/19/2012	1:00pm	CAP	5.63	0.3		6.6
Potassium *	EPA 3010A 6010C	5/3/2012	2:17am	AIP	<1	1	101.0	2.92

* Analyzed by American Interplex

*All results reported in mg/l unless otherwise indicated.

Method: 19th & 20th Edition of "Standard Methods for the Examination of Water & Wastewater".
EPA Regulations, 40 CFR, Part 136

Quality control measures such as blanks, spikes & duplicates are performed daily on at least 10% of all sample. Equipment maintenance & calibration is also performed daily under the guidelines of the USEPA."

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DATA TESTING

Data Testing, Inc.
3434 Country Club
P. O. Box 1507
Fort Smith, Arkansas 72902
79) 649-8378 Fax (479) 649-8486

Company Name: ERM		Phone #: 281-600-1000									
Address: 15810 Park Ten Place, Houston, TX 77084		Fax #:									
Project Name or Number: WH14P001		Purchase Order #: D159348									
Sampling Personnel Signature(s): <i>Kaleigh Kimsey</i>		Printed: <i>Kaleigh Kimsey</i> <i>Sara Tanashita</i>									
Sample I.D.	Date	Time	Comp	Grab	Cont. Type	# of Containers	Method Preserved	Sample Matrix	Requested Analysis	Laboratory Control Number	Remarks
MW-24	4/18/12	1750	✓	✓	Glass	3	H2SO4	None	Natural Attenuation		
MW-27		1850	✓	✓	Glass	3	HNO3	None	Metals		
MW-22		0907	✓	✓	Glass	3	NaOH	None			
ITMN-1		1015	✓	✓	Glass	3	HCL	None			
MW-24		1122	✓	✓	Glass	3		Ice			
MW-29		1250	✓	✓	Glass	3		Water			
MW-71		1450	✓	✓	Glass	3		Soil			
Relinquished by: <i>Kaleigh Kimsey</i>									Relinquished by:	Date: 4/18/12	Time: 19:33
Received by: <i>J.</i>									Received by:	Date:	Time:
Relinquished by:									Received by Laboratory: <i>Gray Peterson</i>	Date: 4-19-12	Time: 11:30
Comments:											