SOVEREIGN CONSULTING INC.

February 9, 2015

Ms. Susan Bull
Maryland Department of the Environment
Oil Control Program
1800 Washington Boulevard, Suite 620
Baltimore, MD 21230

Re: **SITE STATUS REPORT: FIRST QUARTER 2015**
Pilot Travel Center #290
31 Heather Lane
Perryville, Maryland
MDE Case # 97-0699CE

Dear Ms. Bull:

Sovereign Consulting Inc. (Sovereign) on behalf of Pilot Corporation (Pilot) is submitting the attached First Quarter 2015 Site Status Report. The report contains groundwater quality and monitoring data for the period November 1, 2014 through January 31, 2015. Activities this period included weekly/bi-monthly monitoring of product removal levels and quarterly groundwater sampling. The results of the groundwater monitoring and sampling are summarized in the attached report. Operation details of the DPVE Remediation System are included in Table 2. The DPVE system is currently operating only to remove product of 0.10 feet or greater from the system wells.

Should you have any questions or require additional information, please feel free to contact the undersigned at (856) 325-2099.

Sincerely,
Sovereign Consulting Inc.

Jacquelyn Kunes

Staff Engineer

Enclosure

cc: Ms. Jennifer Williams, Sovereign
Mr. Joey Cupp, Pilot Travel Centers
Ms. Jeannette DeBartolomeo, Maryland Department of the Environment

100 Dobbs Lane, Suite 202 • Cherry Hill, NJ 08034 • Tel: 856-325-2099 • Fax: 856-429-7444

# SITE STATUS REPORT
# FIRST QUARTER 2015

**Pilot Travel Center #290**
31 Heather Lane
Perryville, Maryland

**Prepared for:**

Pilot Travel Centers, LLC
5508 Lonas Drive
Knoxville, Tennessee

**Prepared by:**

Sovereign Consulting Inc.
100 Dobbs Lane
Suite 212
Cherry Hill, New Jersey

February 2015

*Site Status Report*
*Pilot Travel Center #290*
*31 Heather Lane, Perryville, Maryland*
*November 1, 2014 through January 31, 2015*

**CONSULTANT:** Sovereign Consulting, Inc.
**PROJECT MANAGER:** Jennifer Williams
**SITE MANAGER:** Joey Cupp

**SITE HISTORY:**

| | |
|---|---|
| 06/05 | Periodic annual inspection of the underground storage tank (UST) system by the Maryland Department of the Environment (MDE). A Compliance Inspection and Report of Observation were issued. |
| 07/05 | GES prepared a summary report to respond to the observations, and report the detection of liquid phase hydrocarbons (LPH). |
| 07/05 | High Intensity Target (HIT) event; 4,325 gallons of LPH and water recovered. |
| 08/05 | Monitoring wells MW-1 through MW-3 installed as part of site characterization activities. |
| 09/05 | HIT event; 4,205 gallons of LPH and water recovered. |
| 10/05 | Three additional groundwater monitoring wells (MW-4 through MW-6) were installed. LPH was detected at thicknesses ranging from 0.01 feet to 1.57 feet in monitoring well MW-2. |
| 11/05 | Groundwater samples were collected from monitoring wells MW-1, MW-3, MW-5, and MW-6. |
| 12/05 | Site Characterization Report (SCR) submitted to MDE. |
| 01/06 | HIT event; 580 gallons of LPH and water recovered. |
| 02/06 | HIT event; 4,650 gallons of LPH and water recovered. |
| 05/06 | HIT event; 831 gallons of LPH and water recovered. |
| 08/06 | Installation of passive skimmer in monitoring well MW-2. |
| 05/08 | Passive skimmer removed from well MW-2 for repair or replacement. |
| 12/08 | Begin installation of SpillBuster product recovery system. |
| 1/09 | Complete installation of SpillBuster product recovery system. |
| 02/09 | Abandonment and re-installation of MW-4, installation of MW-7 and MW-8. |
| 5/19/09 | LPH removal pump in MW-2 malfunctions. Pump is removed for repair. |
| 8/09 | Pump is re-installed. |
| 10/29/09 | LPH removal pump malfunctions. Pump is removed for repair. |
| 3/2010 | LPH removal pump is re-installed in MW-2. |
| 9/3/2010 | Complete installation of new monitoring wells MW-9 and MW-10 |
| 9/8/2010 | Aquifer testing is attempted and fails. |
| 9/13/2010 | EFR conducted on MW-2, MW-8 and MW-10 |
| 9/14/2010 | Slug testing is performed |
| 11/29/2010 | Corrective Action Plan submitted to MDE. |
| 6/1/2011 | Corrective Action Plan approved by MDE. |
| 1/10/2012 | MW-10 abandoned and reinstalled to 31 feet below grade as MW-10R. |
| 5/9/2012 | DPVE System Start-Up. |
| 2/28/2014 | System motor broken; system taken off-line and product monitored. |
| 5/30/2014 | System restarted when 0.10 feet of product was observed in MW-2. |
| 6/25/2014 | System taken off-line and product monitored per approved gauging schedule. |

## REGULATORY INTERACTION:

| | |
|---|---|
| **Agency:** | Maryland Department of the Environment |
| **Agency Contact:** | Susan Bull |
| **MDE Case #** | 97-0699CE |

## REPORTING PERIOD ACTIVITIES:

| | |
|---|---|
| **Groundwater Sampling Frequency:** | Quarterly |
| **Analytical Laboratory / Methods:** | Accutest Laboratories VO+10 by 8260B, TPH-GRO, and TPH-DRO |
| **Gauging Frequency:** | Weekly/Bi-Weekly |
| **Other Activities:** | None |

## DATA SUMMARY:

| | |
|---|---|
| **Groundwater Sampling Date:** | January 15, 2015 |
| **# of Wells / # Sampled:** | 12 /11 |
| **Depth to Water (ft):** | 7.04 feet (TF-1) to 27.85 feet (MW-10R) feet below top of casing |
| **Dissolved Benzene Range:** | ND (MW-1, MW-5, and MW-6) to 2.7 µg/l (MW-3 and MW-10R) |
| **Dissolved BTEX Range:** | ND (MW-5, MW-6) to 315.10 µg/l (TF-2) |
| **Dissolved MTBE Range:** | ND (MW-1, MW-3, MW-6, MW-7, MW-8, TF-1, and TF-2) to 3.6 µg/l (MW-4R) |
| **Dissolved TPH-DRO:** | 0.499 mg/l (MW-6) to 1,290 mg/l (TF-2) |
| **Dissolved TPH-GRO:** | ND (MW-1, MW-3, MW-4R, MW-5, MW-6, MW-7, MW-8, MW-9) to 6.37 mg/L (TF-2) |

## LPH REMOVAL SUMMARY:

| | |
|---|---|
| **HIT Events:** | 14,591 gallons of LPH and groundwater recovered |
| **SpillBuster Operation:** | 94 gallons of LPH recovered |
| **DPVE Operation:** | 369,624 gallons of LPH and groundwater recovered |

## FUTURE ACTIVITIES:

Weekly/Bi-Weekly/Monthly System well gauging
Quarterly gauging and sampling of monitoring wells

**ATTACHMENTS:**

**LIST OF FIGURES**

| | |
|---|---|
| Figure 1 | Site Map |
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| Table 2 | DPE Operation Data |
| Table 3 | Monitoring Well Gauging Data |
| Table 4 | Geochemical Parameters |

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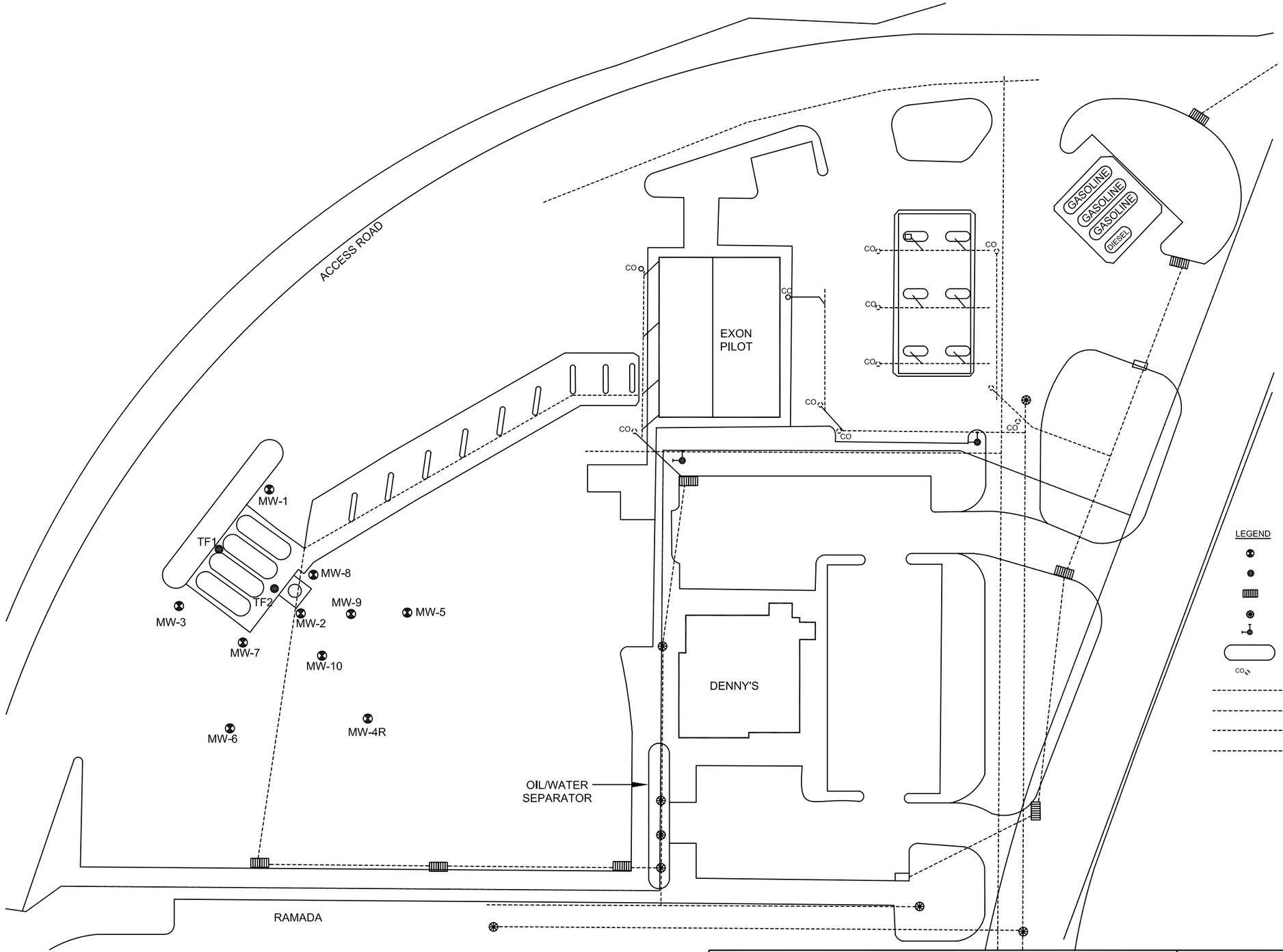
| Appendix A | Laboratory Analytical Report and Chain-of-Custody Documentation |

# FIGURES




0 60
APPROXIMATE SCALE IN FEET

Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

Project No. PL203 File:PTC\SITE PLAN(new).dwg Date: 10/26/10

FIGURE 1
SITE PLAN

PILOT TRAVEL CENTERS SS#290
31 HEATHER LANE
PERRYVILLE, MARYLAND

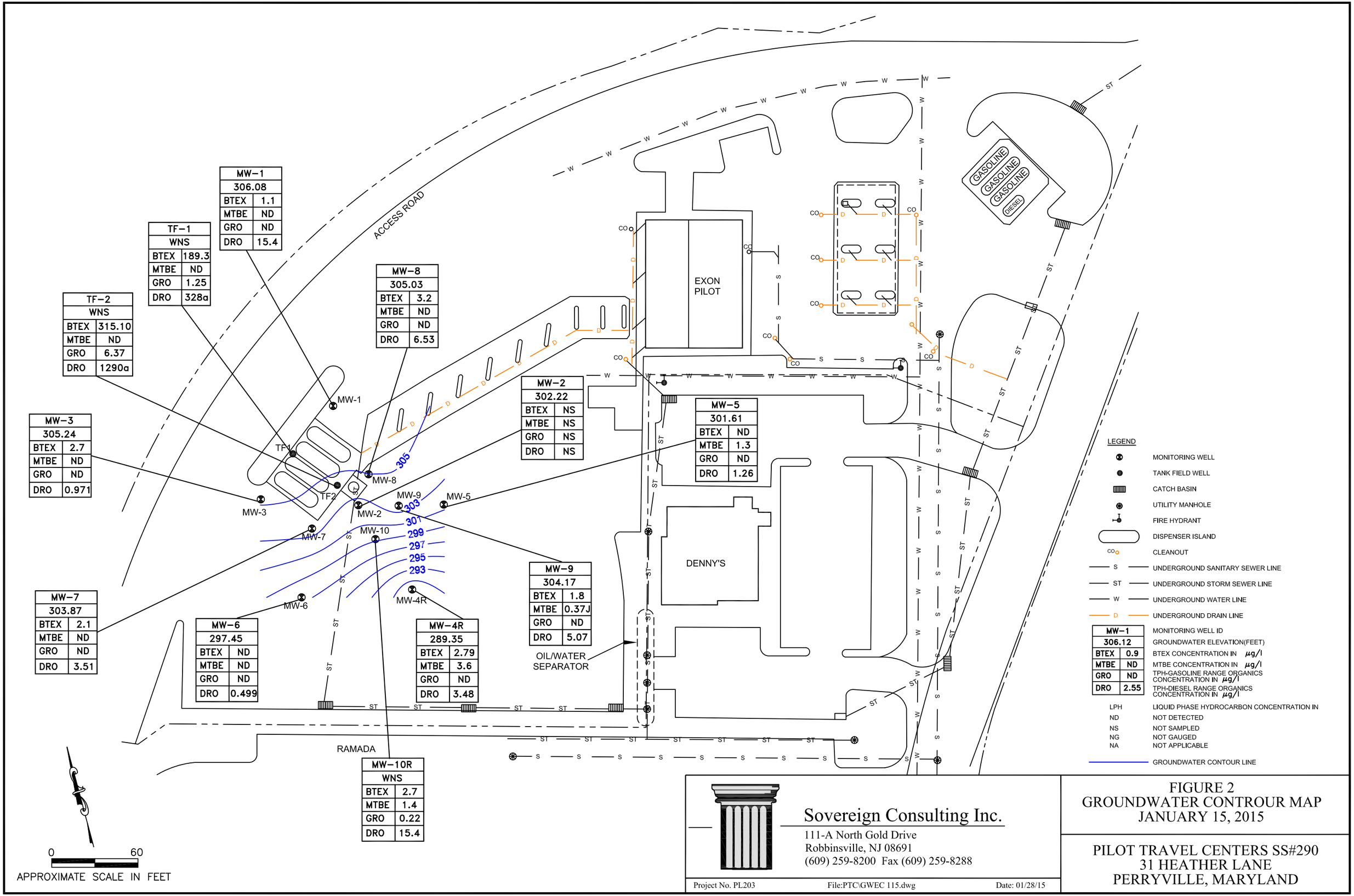

ACCESS ROAD
EXON PILOT
DENNY'S
GASOLINE
GASOLINE
GASOLINE
DIESEL
OIL/WATER SEPARATOR
RAMADA
MW-1
MW-2
MW-3
MW-4R
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
TF1
TF2
305
303
301
299
297
295
293
MW-1
306.08
BTEX 1.1
MTBE ND
GRO ND
DRO 15.4
TF-1
WNS
BTEX 189.3
MTBE ND
GRO 1.25
DRO 328a
TF-2
WNS
BTEX 315.10
MTBE ND
GRO 6.37
DRO 1290a
MW-3
305.24
BTEX 2.7
MTBE ND
GRO ND
DRO 0.971
MW-7
303.87
BTEX 2.1
MTBE ND
GRO ND
DRO 3.51
MW-6
297.45
BTEX ND
MTBE ND
GRO ND
DRO 0.499
MW-4R
289.35
BTEX 2.79
MTBE 3.6
GRO ND
DRO 3.48
MW-8
305.03
BTEX 3.2
MTBE ND
GRO ND
DRO 6.53
MW-2
302.22
BTEX NS
MTBE NS
GRO NS
DRO NS
MW-5
301.61
BTEX ND
MTBE 1.3
GRO ND
DRO 1.26
MW-9
304.17
BTEX 1.8
MTBE 0.37J
GRO ND
DRO 5.07
MW-10R
WNS
BTEX 2.7
MTBE 1.4
GRO 0.22
DRO 15.4
0
60
APPROXIMATE SCALE IN FEET
LEGEND
MONITORING WELL
TANK FIELD WELL
CATCH BASIN
UTILITY MANHOLE
FIRE HYDRANT
DISPENSER ISLAND
CLEANOUT
UNDERGROUND SANITARY SEWER LINE
UNDERGROUND STORM SEWER LINE
UNDERGROUND WATER LINE
UNDERGROUND DRAIN LINE
MW-1 MONITORING WELL ID
306.12 GROUNDWATER ELEVATION(FEET)
BTEX 0.9 BTEX CONCENTRATION IN µg/l
MTBE ND MTBE CONCENTRATION IN µg/l
GRO ND TPH-GASOLINE RANGE ORGANICS CONCENTRATION IN µg/l
DRO 2.55 TPH-DIESEL RANGE ORGANICS CONCENTRATION IN µg/l
LPH LIQUID PHASE HYDROCARBON CONCENTRATION IN
ND NOT DETECTED
NS NOT SAMPLED
NG NOT GAUGED
NA NOT APPLICABLE
GROUNDWATER CONTOUR LINE
Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288
Project No. PL203
File:PTC\GWEC 115.dwg
Date: 01/28/15
FIGURE 2
GROUNDWATER CONTROUR MAP
JANUARY 15, 2015
PILOT TRAVEL CENTERS SS#290
31 HEATHER LANE
PERRYVILLE, MARYLAND

**Figure 3. Pilot Travel Center #290**
**31 Heather Lane, Perryville, MD**
**MW-2: Groundwater Elevation and Product Thickness vs. Time**

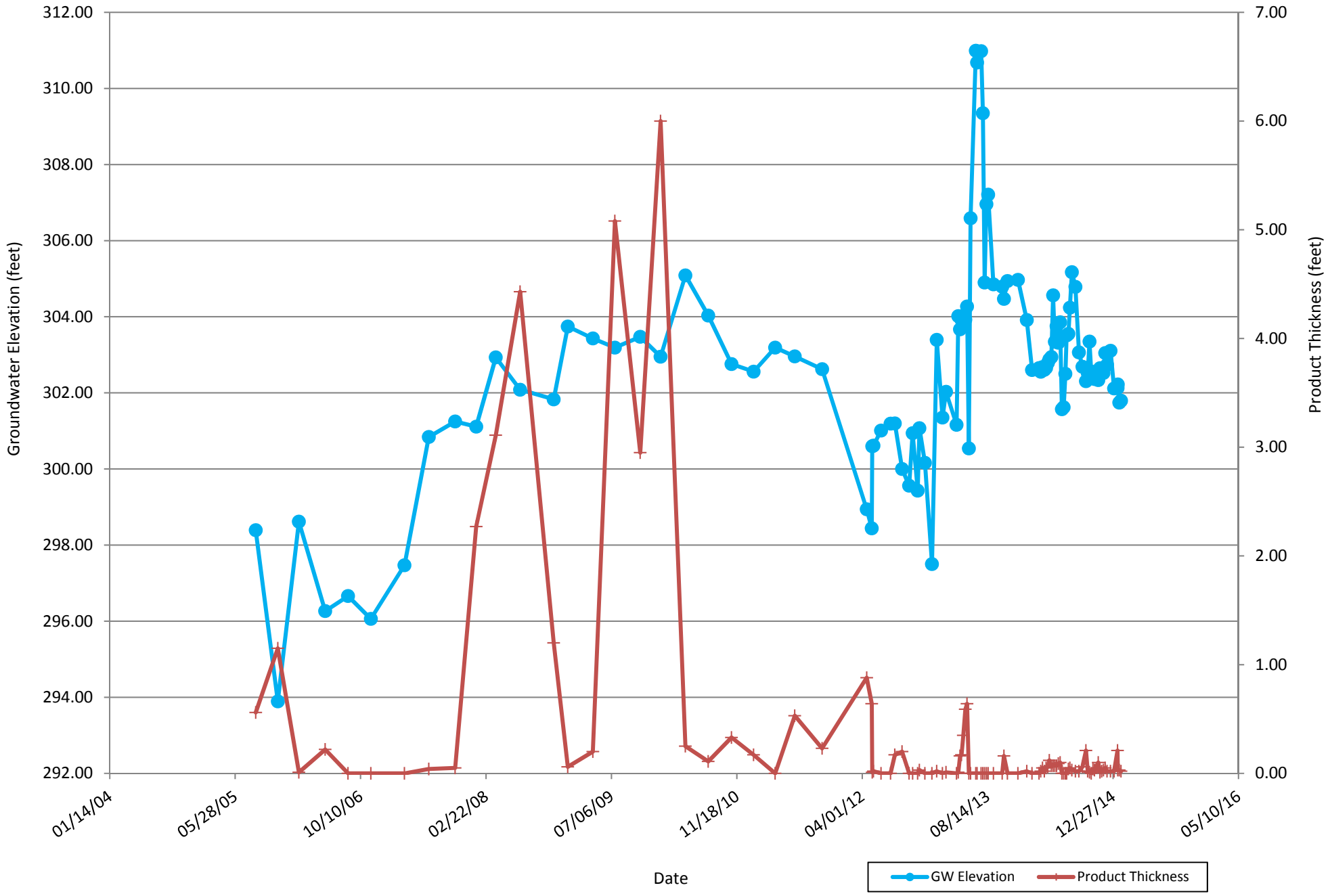
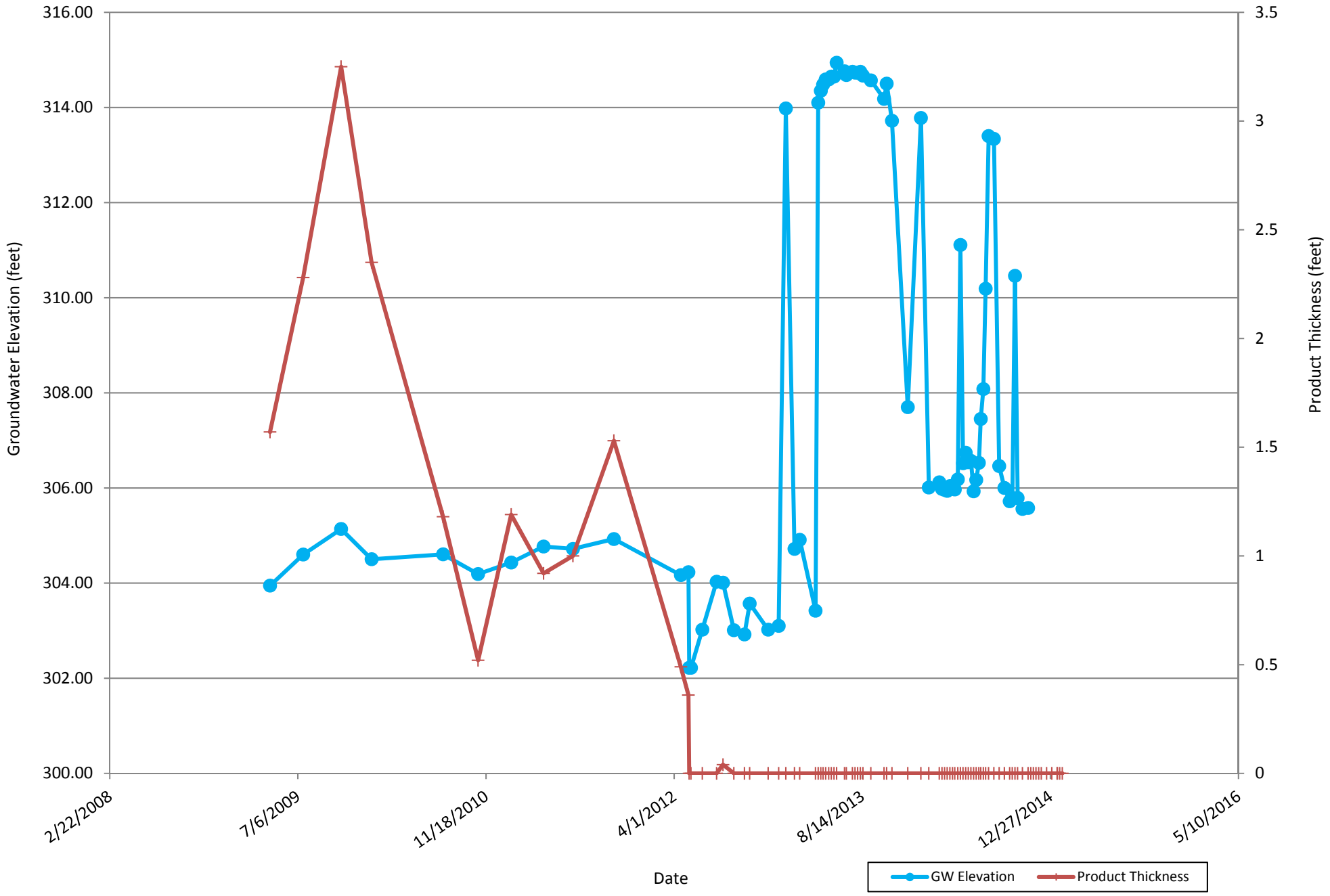


**Figure 4. Pilot Travel Center #290**
**31 Heather Lane, Perryville, MD**
**MW-8: Groundwater Elevation and Product Thickness vs. Time**



# TABLES

*Table 1*

**GROUNDWATER GAUGING AND ANALYTICAL DATA SUMMARY**

Pilot Travel Center #290
31 Heather Lane
Perryville, Maryland

| Well ID | Date | Well Elevation | DTW | Product Thickness | GW Elevation (Corrected) | Benzene (µg/l) | Toluene (µg/l) | Ethyl-benzene (µg/l) | Total Xylenes (µg/l) | BTEX (µg/l) | MTBE (µg/l) | Naphthalene (ug/l) | TPH-GRO (mg/L) | TPH - DRO (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | MDE Standards | | | | | | | | |
| | | | | | | 5.0 | 1,000 | 700 | 10,000 | NA | 20 | 0.65 | 0.047 | 0.047 |
| **MW-1** | 08/18/05 | 317.72 | 12.27 | NA | 305.45 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.17*** |
| | 11/14/05 | 317.72 | 12.59 | NA | 305.13 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.23*** |
| | 02/06/06 | 317.72 | 11.82 | NA | 305.90 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.15*** |
| | 05/22/06 | 317.72 | 12.47 | NA | 305.25 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | <0.1 |
| | 08/21/06 | 317.72 | 12.20 | NA | 305.52 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | <0.1 |
| | 11/20/06 | 317.72 | 11.71 | NA | 306.01 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | <0.1 |
| | 04/03/07 | 317.72 | 11.45 | NA | 306.27 | <5.0 | 5.2 | <5.0 | 6.5 | 11.7 | <5.0 | <5.0 | NA | ***0.43*** |
| | 07/09/07 | 317.72 | 12.27 | NA | 305.45 | <1.0 | <1.0 | <2.0 | <2.0 | ND | <1.0 | <2.0 | NA | ***0.10 J*** |
| | 10/22/07 | 317.72 | 13.35 | NA | 304.37 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.59*** |
| | 01/07/08 | 317.72 | 13.20 | NA | 304.52 | ***14*** | <5.0 | <5.0 | 28 | 42 | <5.0 | ***14*** | NA | ***0.72*** |
| | 04/01/08 | 317.72 | 11.47 | NA | 306.25 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***0.94*** |
| | 07/07/08 | 317.72 | 11.27 | NA | 306.45 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | ***<5.0*** | NA | ***280*** |
| | 11/18/08 | 317.72 | 12.81 | NA | 304.91 | ***23*** | <5.0 | <5.0 | <5.0 | 23.0 | <5.0 | <5.0 | NA | ***6.2*** |
| | 01/13/09 | 317.72 | 12.69 | NA | 305.03 | ***18*** | <5.0 | <5.0 | <5.0 | 18.0 | <5.0 | <5.0 | NA | ***0.64*** |
| | 04/23/09 | 317.72 | 12.01 | NA | 305.71 | ***17*** | <5.0 | <5.0 | <5.0 | 17.0 | <5.0 | <5.0 | ***0.068*** | ***0.53*** |
| | 07/20/09 | 317.72 | 11.63 | NA | 306.09 | ***7.8*** | <5.0 | <5.0 | <5.0 | 7.8 | <5.0 | <5.0 | <0.1 | ***0.14*** |
| | 10/29/09 | 317.72 | 12.15 | NA | 305.57 | ***11.0*** | <1.0 | <1.0 | <1.0 | 11.0 | <1.0 | <1.0 | <0.1 | ***<1.1*** |
| | 01/18/10 | 317.72 | NM | NM | NA | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 04/27/10 | 317.72 | 10.47 | NA | 307.25 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.1 | ***0.85*** |
| | 07/27/10 | 317.72 | 12.08 | NA | 305.64 | ***6.3*** | <1.0 | <1.0 | <1.0 | 6.3 | <1.0 | 1 | <0.1 | ***2.20*** |
| | 10/28/10 | 317.72 | 12.61 | NA | 305.11 | ***5.2*** | <1.0 | <1.0 | <1.0 | 5.2 | <1.0 | <1.0 | <0.050 | ***0.70*** |
| | 01/24/11 | 317.72 | 13.31 | NA | 304.41 | ***10.9*** | 0.33 J | 4.1 | 1.1 | 16.4 | <1.0 | NA | <0.011 | ***1.77*** |
| | 04/20/11 | 317.72 | 11.27 | NA | 306.45 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.31 J | NA | <0.011 | ***3.19*** |
| | 07/07/11 | 317.72 | 11.60 | NA | 306.12 | 0.90J | <0.15 | <0.21 | <0.17 | 0.9 | <1.0 | <0.68 | <0.016 | ***2.66*** |
| | 10/24/11 | 317.72 | 10.88 | NA | 306.84 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA | <0.016 | ***2.12*** |
| | 01/09/12 | 317.72 | 11.39 | NA | 306.33 | 1.4 | <1.0 | <1.0 | <1.0 | 1.4 | <1.0 | NA | <0.016 | ***1.38*** |
| | 04/19/12 | 317.72 | 11.94 | NA | 305.78 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA | <0.016 | ***2.61*** |
| | 07/23/12 | 317.72 | 12.65 | NA | 305.07 | 2.9 | <0.23 | <0.23 | <0.24 | 2.9 | <0.16 | NA | <0.040 | ***1.47*** |
| | 10/19/12 | 317.72 | 13.65 | NA | 304.07 | - | - | - | - | - | - | - | <0.040 | ***0.422*** |
| | 11/15/12 | 317.72 | 13.33 | NA | 304.39 | 2.0 | 4.7 | 6.2 | 28.6 | 41.5 | <0.16 | NA | - | - |
| | 01/23/13 | 317.72 | 11.94 | NA | 305.78 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | <1.1 | <0.040 | ***3.080*** |
| | 04/26/13 | 317.72 | 10.18 | N/A | 307.54 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | <1.1 | <0.040 | ***0.762*** |
| | 07/19/13 | 317.72 | 5.85 | NA | 311.87 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | <1.1 | <0.038 | ***0.221*** |
| | 10/18/13 | 317.72 | 5.94 | NA | 311.78 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.497*** |
| | 01/17/14 | 317.72 | 8.11 | NA | 309.61 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.588*** |
| | 04/25/14 | 317.72 | 8.65 | NA | 309.07 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.268*** |
| | 07/08/14 | 317.72 | 7.21 | NA | 310.51 | <0.21 | <0.22 | 1.9 | 7.9 | 9.8 | <0.26 | ***5.5*** | ***0.333*** | ***0.980*** |
| | 10/14/14 | 317.72 | 10.71 | NA | 307.01 | 0.65 | <0.22 | 1.6 | <0.20 | 2.3 | <0.26 | <0.34 | <0.038 | ***0.575*** |
| | 01/15/15 | 317.72 | 11.64 | NA | 306.08 | <0.21 | <0.22 | <0.40 | 1.1 | 1.1 | <0.26 | 0.54 J | <0.038 | ***15.4*** |
| **MW-2** | 08/18/05 | 315.76 | 17.79 | 0.56 | 298.39 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 11/14/05 | 315.76 | 22.73 | 1.15 | 293.89 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 02/06/06 | 315.76 | 17.15 | 0.01 | 298.62 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 05/22/06 | 315.76 | 19.66 | 0.22 | 296.27 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 08/21/06 | 315.76 | 19.10 | 0.00 | 296.66 | <5.0 | <5.0 | <5.0 | 5.4 | 5.4 | 11 | ***15*** | NA | <0.1 |
| | 11/20/06 | 315.76 | 19.70 | 0.00 | 296.06 | <50 | <50 | <50 | <50 | ND | <50 | <50 | NA | ***340*** |
| | 04/03/07 | 315.76 | 18.29 | 0.00 | 297.47 | <5.0 | 5.4 | 7.8 | 32.2 | 45.4 | <5.0 | ***19*** | NA | ***260*** |
| | 07/09/07 | 315.76 | 14.95 | 0.04 | 300.84 | 3.5 | 5.6 | 18.0 | 56.3 | 83.4 | 3 | ***49 B*** | NA | ***210*** |
| | 10/22/07 | 315.76 | 14.55 | 0.05 | 301.25 | <5.0 | <5.0 | 9.9 | 28.0 | 27.9 | <5.0 | ***45*** | NA | ***210*** |
| | 01/14/08 | 315.76 | 16.35 | 2.27 | 301.11 | ***93*** | 280 | 78 | 750 | 1,201 | <5.0 | ***230*** | NA | ***170*** |
| | 04/01/08 | 315.76 | 15.16 | 3.11 | 302.93 | *<5.0* | 890 | 420 | 4,000 | 5,310 | <5.0 | ***460*** | NA | ***360*** |
| | 07/07/08 | 315.76 | 17.00 | 4.43 | 302.08 | ***54*** | 220 | 89 | 710 | 1,073 | <5.0 | ***390*** | NA | ***44*** |
| | 11/18/08 | 315.76 | 14.83 | 1.20 | 301.83 | ***26*** | 29 | 21 | 134 | 210 | <5.0 | ***130*** | NA | ***61*** |
| | 01/13/09 | 315.76 | 12.06 | 0.06 | 303.75 | ***<25*** | 55 | 46 | 336 | 437 | <25 | ***270*** | NA | ***910*** |
| | 04/23/09 | 315.76 | 12.48 | 0.20 | 303.43 | ***18*** | 14 | 17 | 103 | 152 | <5.0 | ***120*** | ***1.7*** | ***130*** |
| | 07/20/09 | 315.76 | 16.38 | 5.08 | 303.19 | ***27*** | 36 | 56 | 430 | 549 | <5.0 | ***340*** | ***11.0*** | ***8800*** |
| | 10/29/09 | 315.76 | 14.50 | 2.95 | 303.47 | ***28*** | 17 | 52 | 270 | 367 | <2.0 | ***240*** | ***7.7*** | ***2300*** |
| | 01/18/10 | 315.76 | 17.31 | 6.00 | 302.95 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 04/27/10 | 315.76 | 10.86 | 0.25 | 305.09 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 07/27/10 | 315.76 | 11.81 | 0.11 | 304.03 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 10/28/10 | 315.76 | 13.25 | 0.33 | 302.76 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 01/24/11 | 315.76 | 13.33 | 0.17 | 302.56 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 04/20/11 | 315.76 | 12.57 | 0.00 | 303.19 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 07/07/11 | 315.76 | 13.20 | 0.53 | 302.96 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 10/24/11 | 315.76 | 13.31 | 0.23 | 302.62 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 04/19/12 | 315.76 | 17.48 | 0.88 | 298.94 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 07/23/12 | 315.76 | 14.57 | 0.00 | 301.19 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 10/19/12 | 315.76 | 14.82 | 0.00 | 300.94 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 11/15/12 | 315.76 | 14.71 | 0.03 | 301.07 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 01/23/13 | 315.76 | 12.38 | 0.02 | 303.40 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 04/26/13 | 315.76 | 12.21 | 0.16 | 303.67 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 07/19/13 | 315.76 | 4.78 | 0.00 | 310.98 | <0.24 | 0.26 J | 0.97 J | 6.4 | 7.63 | ND | ***6.3*** | <0.038 | ***27.9*** |
| | 10/18/13 | 315.76 | 11.41 | 0.16 | 304.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 01/17/14 | 315.76 | 11.86 | 0.02 | 303.92 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 04/25/14 | 315.76 | 12.87 | 0.07 | 302.94 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 07/08/14 | 315.76 | 11.56 | 0.05 | 304.24 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 10/14/14 | 315.76 | 13.42 | 0.03 | 302.36 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 01/15/15 | 315.76 | 13.56 | 0.03 | 302.22 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

*Table 1*

**GROUNDWATER GAUGING AND ANALYTICAL DATA SUMMARY**

Pilot Travel Center #290
31 Heather Lane
Perryville, Maryland

| Well ID | Date | Well Elevation | DTW | Product Thickness | GW Elevation (Corrected) | Benzene (µg/l) | Toluene (µg/l) | Ethyl-benzene (µg/l) | Total Xylenes (µg/l) | BTEX (µg/l) | MTBE (µg/l) | Naphthalene (ug/l) | TPH-GRO (mg/L) | TPH - DRO (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-3** | 08/18/05 | 316.12 | 11.00 | NA | 305.12 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.42*** |
| | 11/14/05 | 316.12 | 11.47 | NA | 304.65 | <5.0 | <5.0 | <5.0 | <5.0 | ND | ***23*** | <5.0 | NA | ***0.58*** |
| | 02/06/06 | 316.12 | 10.36 | NA | 305.76 | <5.0 | <5.0 | <5.0 | <5.0 | ND | ***20*** | <5.0 | NA | ***0.71*** |
| | 05/22/06 | 316.12 | 11.06 | NA | 305.06 | <5.0 | <5.0 | <5.0 | <5.0 | ND | 6.5 | <5.0 | NA | ***0.24*** |
| | 08/21/06 | 316.12 | 10.80 | NA | 305.32 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.71*** |
| | 11/20/06 | 316.12 | 10.27 | NA | 305.85 | <5.0 | <5.0 | <5.0 | <5.0 | ND | 5.8 | <5.0 | NA | ***0.66*** |
| | 04/03/07 | 316.12 | 10.38 | NA | 305.74 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.50*** |
| | 07/09/07 | 316.12 | 10.89 | NA | 305.23 | 0.90 J | <1.0 | <2.0 | <2.0 | 0.90 J | 2.6 | 0.32 BJ | NA | ***0.39*** |
| | 10/22/07 | 316.12 | 12.00 | NA | 304.12 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***1.40*** |
| | 01/07/08 | 316.12 | 11.84 | NA | 304.28 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.77*** |
| | 04/01/08 | 316.12 | 10.25 | NA | 305.87 | ***14*** | <5.0 | <5.0 | <5.0 | 14 | <5.0 | <5.0 | NA | ***0.93*** |
| | 07/07/08 | 316.12 | 10.10 | NA | 306.02 | ***11*** | <5.0 | <5.1 | <5.2 | 11 | <5.0 | <5.0 | NA | ***0.77*** |
| | 11/18/08 | 316.12 | 11.66 | NA | 304.46 | ***8.3*** | <5.0 | <5.0 | <5.0 | 8.3 | <5.0 | <5.0 | NA | ***0.66*** |
| | 01/13/09 | 316.12 | 11.57 | NA | 304.55 | ***8.2*** | <5.0 | <5.0 | <5.0 | 8.2 | <5.0 | <5.0 | NA | ***5.20*** |
| | 04/23/09 | 316.12 | 11.65 | NA | 304.47 | ***6.5*** | <5.0 | <5.0 | <5.0 | 6.5 | <5.0 | <5.0 | <0.1 | ***1.60*** |
| | 07/20/09 | 316.12 | 10.32 | NA | 305.80 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <0.1 | ***0.47*** |
| | 10/29/09 | 316.12 | 10.71 | NA | 305.41 | ***5.4*** | <1.0 | <1.0 | <1.0 | 5 | <1.0 | <1.0 | <0.1 | ***2.20*** |
| | 01/18/10 | 316.12 | 10.58 | NA | 305.54 | ***6.7*** | <1.0 | <1.0 | <1.0 | 7 | <1.0 | <0.1 | <0.1 | ***0.91*** |
| | 04/27/10 | 316.12 | 9.66 | NA | 306.46 | ***6.1*** | <1.0 | <1.0 | <1.0 | 6.1 | <1.0 | <1.0 | <0.1 | ***1.40*** |
| | 07/27/10 | 316.12 | 10.60 | NA | 305.52 | 3.7 | <1.0 | <1.0 | <1.0 | 3.7 | <1.0 | <1.0 | <0.1 | ***0.90*** |
| | 10/28/10 | 316.12 | 11.08 | NA | 305.04 | 4.8 | <1.0 | <1.0 | <1.0 | 4.8 | <1.0 | <1.0 | <0.050 | ***1.20*** |
| | 01/24/11 | 316.12 | 12.04 | NA | 304.08 | ***6.7*** | <1.0 | <1.0 | <1.0 | 6.7 | <1.0 | NA | <0.011 | ***1.60*** |
| | 04/20/11 | 316.12 | 10.55 | NA | 305.57 | ***7.5*** | <1.0 | <1.0 | 1.2 | 8.7 | <1.0 | NA | <0.011 | ***2.62*** |
| | 07/07/11 | 316.12 | 10.54 | NA | 305.58 | ***6.7*** | <0.15 | <0.21 | <0.17 | 6.7 | <0.18 | <0.68 | <0.016 | ***1.81*** |
| | 10/24/11 | 316.12 | 9.37 | NA | 306.75 | 3.7 | <1.0 | 0.43 | <1.0 | 4.1 | <1.0 | NA | <0.016 | ***1.76*** |
| | 01/09/12 | 316.12 | 10.21 | NA | 305.91 | 3.2 | <1.0 | <1.0 | <1.0 | 3.2 | <1.0 | NA | <0.016 | ***1.30*** |
| | 04/19/12 | 316.12 | 11.28 | NA | 304.84 | 3.6 | <1.0 | <1.0 | <1.0 | 3.6 | <1.0 | NA | <0.016 | ***2.16*** |
| | 07/23/12 | 316.12 | 11.58 | NA | 304.54 | 3.1 | <0.23 | <0.23 | <0.24 | 3.1 | <0.16 | NA | <0.040 | ***1.76*** |
| | 10/19/12 | 316.12 | 12.61 | NA | 303.51 | - | - | - | - | - | - | - | <0.040 | ***1.29*** |
| | 11/15/12 | 316.12 | 12.06 | NA | 304.06 | 2.8 | <0.23 | 0.32 J | 0.63 J | 3.4 J | <0.16 | NA | - | - |
| | 01/23/13 | 316.12 | 11.14 | NA | 304.98 | 1.3 | <0.23 | 0.78 J | 1.20 | 3.28 J | <0.16 | ***2.1 J*** | <0.040 | ***10.40*** |
| | 04/26/13 | 316.12 | 9.77 | NA | 306.35 | 2.0 | <0.23 | 0.27 J | <0.24 | 2.3 | <0.16 | <1.8 | <0.040 | ***5.76*** |
| | 07/19/13 | 316.12 | 6.11 | NA | 310.01 | 0.98 J | <0.23 | 1.40 | 0.76 J | 3.14 | <0.16 | <1.1 | <0.038 | ***2.49*** |
| | 10/18/13 | 316.12 | 7.08 | NA | 309.04 | 1.4 | <0.44 | 0.63 J | 0.25 J | 2.28 | <0.29 | ***0.89 J*** | <0.038 | ***1.91*** |
| | 01/17/14 | 316.12 | 9.90 | NA | 306.22 | 3.3 | <0.44 | <0.21 | <0.19 | 3.30 | <0.29 | <0.25 | <0.038 | ***1.58*** |
| | 04/25/14 | 316.12 | 9.87 | NA | 306.25 | 0.36J | <0.44 | <0.21 | <0.19 | 0.36 | <0.29 | <0.25 | <0.038 | ***0.61*** |
| | 07/08/14 | 316.12 | 7.94 | NA | 308.18 | <0.21 | <0.22 | 0.70 J | 1.70 | 2.40 | <0.26 | <0.34 | <0.038 | ***0.727*** |
| | 10/14/14 | 316.12 | 10.14 | NA | 305.98 | 3.5 | <0.22 | <0.40 | <0.20 | 3.50 | <0.26 | <0.34 | <0.038 | ***0.852*** |
| | 01/15/15 | 316.12 | 10.88 | NA | 305.24 | 2.7 | <0.22 | <0.40 | <0.20 | 2.7 | <0.26 | <0.34 | <0.038 | ***0.971*** |
| **MW-4** | 11/14/05 | Unknown | Dry | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 02/06/06 | Unknown | 24.22 | NA | Unknown | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | N/A |
| | 05/22/06 | Unknown | 24.17 | NA | Unknown | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***5.0*** |
| | 08/21/06 | Unknown | 24.70 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 04/03/07 | Unknown | Dry | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 07/09/07 | Unknown | 24.20 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 10/22/07 | Unknown | 23.02 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 01/07/08 | Unknown | 24.26 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 04/01/08 | Unknown | 24.20 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 07/07/08 | Unknown | 24.12 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 11/18/08 | Unknown | 23.31 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| | 01/13/09 | Unknown | 23.38 | NA | Unknown | - | - | - | - | - | - | - | NA | - |
| **MW-4R** | 04/23/09 | 315.69 | 26.32 | NA | 289.37 | <5.0 | <5.0 | <5.0 | <5.0 | ND | 5.1 | 5.0 | <0.1 | ***0.15*** |
| | 07/20/09 | 315.69 | 26.20 | NA | 289.49 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | ***20*** | <0.1 | ***0.56*** |
| | 10/29/09 | 315.69 | 26.31 | NA | 289.38 | 4.9 | <1.0 | <1.0 | <1.0 | 4.9 | 5.0 | ***15*** | <0.1 | ***0.55*** |
| | 01/18/10 | 315.69 | 23.35 | NA | 292.34 | 4.6 | <1.0 | <1.0 | <1.0 | 4.6 | 4.7 | ***15*** | <0.1 | ***0.17*** |
| | 04/27/10 | 315.69 | 26.17 | NA | 289.52 | 4.4 | <1.0 | <1.0 | <1.0 | 4.4 | 4.4 | ***12*** | <0.1 | ***0.45*** |
| | 07/27/10 | 315.69 | 26.20 | NA | 289.49 | 4.1 | <1.0 | <1.0 | <1.0 | 4.1 | 3.5 | ***14*** | <0.1 | ***0.22*** |
| | 10/28/10 | 315.69 | 26.44 | NA | 289.25 | 4.2 | <1.0 | <1.0 | <1.0 | 4.2 | 3.8 | ***20*** | <0.05 | ***0.28*** |
| | 01/24/11 | 315.69 | 26.60 | NA | 289.09 | 3.7 | <1.0 | <1.0 | <1.0 | 3.7 | 3.8 | NA | <0.011 | ***0.81*** |
| | 04/20/11 | 315.69 | 26.11 | NA | 289.58 | 4.0 | <1.0 | <1.0 | <1.0 | 4.0 | 3.9 | NA | <0.011 | ***2.43*** |
| | 07/07/11 | 315.69 | 26.20 | NA | 289.49 | 3.7 | <0.15 | <0.21 | <0.17 | 3.7 | 3.6 | <0.68 | <0.016 | ***2.84*** |
| | 10/24/11 | 315.69 | 26.34 | NA | 289.35 | 4.1 | <1.0 | <1.0 | <1.0 | 4.1 | 3.5 | NA | <0.016 | ***1.41*** |
| | 01/09/12 | 315.69 | 26.28 | NA | 289.41 | 4.0 | 0.24 J | <1.0 | <1.0 | 4.2 | 3.4 | NA | <0.016 | ***0.59*** |
| | 04/19/12 | 315.69 | 26.15 | NA | 289.54 | 3.0 | 0.37 J | <1.0 | <1.0 | 3.4 | 3.2 | NA | <0.016 | ***1.84*** |
| | 07/23/12 | 315.69 | 26.47 | NA | 289.22 | 3.8 | 0.55 J | <0.23 | <0.24 | 4.4 | 4.4 | NA | <0.040 | ***0.998*** |
| | 10/19/12 | 315.69 | 26.14 | NA | 289.55 | - | - | - | - | - | - | - | <0.040 | ***1.15*** |
| | 11/15/12 | 315.69 | 26.65 | NA | 289.04 | 1.6 | <0.23 | <0.23 | <0.24 | 1.6 | 3.0 | NA | - | - |
| | 01/23/13 | 315.69 | 28.17 | NA | 287.52 | 1.3 | <0.23 | <0.23 | <0.24 | 1.3 | 3.3 | ***4.8 J*** | <0.040 | ***4.80*** |
| | 04/26/13 | 315.69 | 25.97 | NA | 289.72 | 1.9 | <0.23 | <0.23 | <0.24 | 1.9 | 3.7 | ***6.3*** | <0.040 | ***1.29*** |
| | 07/19/13 | 315.69 | 25.55 | NA | 290.14 | 1.4 | 0.59 J | <0.23 | <0.24 | 1.99 | 2.6 | ***5.3*** | <0.038 | ***0.927*** |
| | 10/18/13 | 315.69 | 25.71 | NA | 289.98 | 2.1 | <0.44 | <0.21 | <0.19 | 2.10 | 3.2 | ***7.7*** | <0.038 | ***0.687*** |
| | 01/17/14 | 315.69 | 26.05 | NA | 289.64 | 2.2 | <0.44 | <0.21 | <0.19 | 2.20 | 3.0 | ***4.9 J*** | <0.038 | ***1.690*** |
| | 04/25/14 | 315.69 | 26.14 | NA | 289.55 | 2.0 | <0.44 | <0.21 | <0.19 | 2.0 | 2.4 | ***4.9J*** | <0.038 | ***1.990*** |
| | 07/08/14 | 315.69 | 25.93 | NA | 289.76 | 2.1 | <0.22 | <0.40 | <0.20 | 2.1 | 2.8 | ***6.1*** | <0.038 | ***2.890*** |
| | 10/14/14 | 315.69 | 25.95 | NA | 289.74 | 2.2 | <0.22 | <0.40 | <0.20 | 2.2 | 2.5 | ***6.8*** | <0.038 | ***0.876*** |
| | 01/15/15 | 315.69 | 26.34 | NA | 289.35 | 2.2 | 0.59 J | <0.40 | <0.20 | 2.79 | 3.6 | ***4.4 J*** | <0.038 | ***3.48*** |

*Table 1*

**GROUNDWATER GAUGING AND ANALYTICAL DATA SUMMARY**

Pilot Travel Center #290
31 Heather Lane
Perryville, Maryland

| Well ID | Date | Well Elevation | DTW | Product Thickness | GW Elevation (Corrected) | Benzene (µg/l) | Toluene (µg/l) | Ethyl-benzene (µg/l) | Total Xylenes (µg/l) | BTEX (µg/l) | MTBE (µg/l) | Naphthalene (ug/l) | TPH-GRO (mg/L) | TPH - DRO (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-5** | 11/14/05 | 317.78 | 16.35 | NA | 301.43 | <5.0 | <5.0 | <5.0 | <5.0 | ND | 7.8 | <5.0 | NA | ***1.7*** |
| | 02/06/06 | 317.78 | 16.26 | NA | 301.52 | <5.0 | <5.0 | <5.0 | <5.0 | ND | 5.7 | <5.0 | NA | ***0.57*** |
| | 05/22/06 | 317.78 | 16.31 | NA | 301.47 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.8*** |
| | 08/21/06 | 317.78 | 16.25 | NA | 301.53 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.49*** |
| | 11/20/06 | 317.78 | 16.17 | NA | 301.61 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.46*** |
| | 04/03/07 | 317.78 | 16.20 | NA | 301.58 | <5.0 | <5.0 | <5.0 | 6.1 | 6.1 | <5.0 | <5.0 | NA | ***0.49*** |
| | 07/09/07 | 317.78 | 16.19 | NA | 301.59 | <1.0 | <1.0 | <2.0 | <2.0 | ND | 8.8 | 0.96 BJ | NA | ***1.00*** |
| | 10/22/07 | 317.78 | 16.55 | NA | 301.23 | <5.0 | <5.0 | <5.0 | 16.0 | 16.0 | 5.2 | ***37*** | NA | ***6.80*** |
| | 01/07/08 | 317.78 | 16.53 | NA | 301.25 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***1.20*** |
| | 04/01/08 | 317.78 | 16.20 | NA | 301.58 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***1.90*** |
| | 07/07/08 | 317.78 | 16.14 | NA | 301.64 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 7.5 | <5.0 | NA | ***1.20*** |
| | 11/18/08 | 317.78 | 16.43 | NA | 301.35 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 5.9 | <5.0 | NA | ***2.20*** |
| | 01/13/09 | 317.78 | 16.44 | NA | 301.34 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***2.40*** |
| | 04/23/09 | 317.78 | 16.44 | NA | 301.34 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <0.1 | ***1.00*** |
| | 07/20/09 | 317.78 | 16.15 | NA | 301.63 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <0.1 | ***1.10*** |
| | 10/29/09 | 317.78 | 16.24 | NA | 301.54 | 2.6 | <1.0 | <1.0 | <1.0 | 2.6 | 5.2 | <1.0 | <0.1 | ***1.40*** |
| | 01/18/10 | 317.78 | 16.20 | NA | 301.58 | 3.5 | <1.0 | <1.0 | <1.0 | 3.5 | 1.4 | <0.1 | <0.1 | ***0.90*** |
| | 04/27/10 | 317.78 | 16.04 | NA | 301.74 | 3.1 | <1.0 | <1.0 | <1.0 | 3.1 | <1.0 | <1.0 | <0.1 | ***1.30*** |
| | 07/27/10 | 317.78 | 16.08 | NA | 301.70 | 2.3 | <1.0 | <1.0 | <1.0 | 2.3 | 1.3 | ***1.6*** | <0.1 | ***0.82*** |
| | 10/28/10 | 317.78 | 17.51 | NA | 300.27 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3.3 | <1.0 | <0.05 | ***1.80*** |
| | 01/24/11 | 317.78 | 16.49 | NA | 301.29 | 1.1 | <1.0 | <1.0 | <1.0 | 1.1 | 1.1 | NA | <0.011 | ***2.82*** |
| | 04/20/11 | 317.78 | 16.22 | NA | 301.56 | 1.5 | <1.0 | <1.0 | <1.0 | 1.5 | 1.5 | NA | <0.011 | ***4.93*** |
| | 07/07/11 | 317.78 | 16.19 | NA | 301.59 | 0.88 J | <0.15 | <0.21 | <0.17 | 0.9 | 1.6 | <0.68 | <0.016 | ***4.41*** |
| | 10/24/11 | 317.78 | 16.08 | NA | 301.70 | 1.9 | <1.0 | <1.0 | <1.0 | 1.9 | 1.6 | NA | <0.016 | ***2.42*** |
| | 01/09/12 | 317.78 | 16.14 | NA | 301.64 | 1.1 | <1.0 | <1.0 | <1.0 | 1.1 | 0.88 | NA | <0.016 | ***2.09*** |
| | 04/19/12 | 317.78 | 16.26 | NA | 301.52 | 0.78 J | <1.0 | <1.0 | <1.0 | 0.78 J | 1.00 | NA | <0.016 | ***2.80*** |
| | 07/23/12 | 317.78 | 16.37 | NA | 301.41 | 0.70 J | <0.23 | <0.23 | <0.24 | 0.70 J | 1.40 | NA | <0.040 | ***2.78*** |
| | 10/19/12 | 317.78 | 16.74 | NA | 301.04 | - | - | - | - | - | - | - | <0.040 | ***1.41*** |
| | 11/15/12 | 317.78 | 16.62 | NA | 301.16 | 0.37 J | <0.23 | <0.23 | <0.24 | 0.37 J | 1.10 | NA | - | - |
| | 01/23/13 | 317.78 | 16.23 | NA | 301.55 | 2.10 | <0.23 | 0.25 J | 0.41 J | 2.76 J | 0.67 J | ***4.9 J*** | <0.040 | ***3.01*** |
| | 04/26/13 | 317.78 | 16.05 | NA | 301.73 | 2.20 | <0.23 | <0.23 | <0.24 | 2.2 | 1.20 | <1.1 | <0.040 | ***1.69*** |
| | 07/19/13 | 317.78 | 15.65 | NA | 302.13 | <0.24 | <0.28 | <0.23 | <0.24 | ND | 0.48 J | <1.1 | <0.038 | ***0.38*** |
| | 10/18/13 | 317.78 | 15.73 | NA | 302.05 | 0.67 J | <0.44 | <0.21 | <0.19 | 0.7 | 0.95 J | 0.44 J | <0.038 | ***1.36*** |
| | 01/17/14 | 317.78 | 15.94 | NA | 301.84 | 0.60 J | <0.44 | <0.21 | <0.19 | 0.6 | 0.69 J | <0.25 | <0.038 | ***1.53*** |
| | 04/25/14 | 317.78 | 16.07 | NA | 301.71 | 0.43 J | <0.44 | <0.21 | <0.19 | 0.43 | 0.43 J | 0.35 J | <0.038 | ***1.04*** |
| | 07/08/14 | 317.78 | 16.00 | NA | 301.78 | 0.36 J | <0.22 | <0.40 | <0.20 | 0.36 | 1.9 | <0.34 | <0.038 | ***1.25*** |
| | 10/14/14 | 317.78 | 16.70 | NA | 301.08 | 0.22 J | <0.22 | <0.40 | <0.20 | 0.22 | 1.2 | <0.34 | <0.038 | ***1.06*** |
| | 01/15/15 | 317.78 | 16.17 | NA | 301.61 | <0.21 | <0.22 | <0.40 | <0.20 | ND | 1.3 | <0.34 | <0.038 | ***1.26*** |
| **MW-6** | 11/14/05 | 315.48 | 18.09 | NA | 297.39 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.11*** |
| | 02/06/06 | 315.48 | 17.64 | NA | 297.84 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | <0.11 |
| | 05/22/06 | 315.48 | 17.91 | NA | 297.57 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.16*** |
| | 08/21/06 | 315.48 | 17.73 | NA | 297.75 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.13*** |
| | 11/20/06 | 315.48 | 17.64 | NA | 297.84 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.19*** |
| | 04/03/07 | 315.48 | 17.61 | NA | 297.87 | <5.0 | <5.0 | <5.0 | 5.7 | 5.7 | <5.0 | <5.0 | NA | <0.1 |
| | 07/09/07 | 315.48 | 17.73 | NA | 297.75 | <1.0 | <1.0 | <2.0 | <2.0 | ND | <1.0 | <2.0 | NA | ***0.072 J*** |
| | 10/22/07 | 315.48 | 18.30 | NA | 297.18 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.60*** |
| | 01/07/08 | 315.48 | 18.35 | NA | 297.13 | <5.0 | <5.0 | <5.0 | <5.0 | ND | <5.0 | <5.0 | NA | ***0.23*** |
| | 4/1/2008 | 315.48 | 17.77 | NA | 297.71 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***1.6*** |
| | 7/7/2008 | 315.48 | 17.57 | NA | 297.91 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***0.13*** |
| | 11/18/2008 | 315.48 | 18.2 | NA | 297.28 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***0.2*** |
| | 1/13/2009 | 315.48 | 18.27 | NA | 297.21 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | NA | ***0.44*** |
| | 4/23/2009 | 315.48 | 18.11 | NA | 297.37 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | ND | ***0.25*** |
| | 7/20/2009 | 315.48 | 17.68 | NA | 297.80 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <0.1 | ***0.098*** |
| | 10/29/2009 | 315.48 | 17.91 | NA | 297.57 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.1 | ***0.26*** |
| | 1/18/2010 | 315.48 | 17.73 | NA | 297.75 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.1 | ***0.063*** |
| | 4/27/2010 | 315.48 | 17.03 | NA | 298.45 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.1 | ***0.77*** |
| | 7/27/2010 | 315.48 | 17.08 | NA | 298.40 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.1 | <0.05 |
| | 10/28/2010 | 315.48 | 17.51 | NA | 297.97 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.05 | ***0.58*** |
| | 1/24/2011 | 315.48 | NM | NM | NM | Frozen | Frozen | Frozen | Frozen | Frozen | Frozen | Frozen | Frozen | Frozen |
| | 4/20/2011 | 315.48 | 17.35 | NA | 298.13 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA | <0.011 | ***3.51*** |
| | 7/7/2011 | 315.48 | 17.73 | NA | 297.75 | <0.22 | <0.15 | <0.21 | <0.17 | ND | <0.18 | <0.68 | <0.016 | ***3.57*** |
| | 10/24/2011 | 315.48 | 17.46 | NA | 298.02 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA | <0.016 | ***2.06*** |
| | 1/9/2012 | 315.48 | 17.37 | NA | 298.11 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA | <0.016 | ***1.50*** |
| | 4/19/2012 | 315.48 | 17.84 | NA | 297.64 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA | <0.016 | ***1.05*** |
| | 7/23/2012 | 315.48 | 18.18 | NA | 297.30 | <0.24 | <0.23 | <0.23 | <0.24 | <0.23 | <0.16 | NA | <0.040 | ***1.07*** |
| | 10/19/2012 | 315.48 | 18.03 | NA | 297.45 | - | - | - | - | - | - | - | <0.040 | ***<0.053*** |
| | 11/15/2012 | 315.48 | 18.49 | NA | 296.99 | <0.24 | <0.23 | <0.23 | <0.24 | <0.23 | <0.16 | NA | - | - |
| | 1/23/2013 | 315.48 | 18.24 | NA | 297.24 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | <1.1 | <0.040 | ***1.82*** |
| | 4/26/2013 | 315.48 | 17.72 | NA | 297.76 | 2.0 | <0.23 | <0.23 | <0.24 | 2.0 | <0.16 | <1.1 | <0.040 | ***0.677*** |
| | 7/19/2013 | 315.48 | 16.59 | NA | 298.89 | <0.24 | <0.23 | <0.24 | <0.24 | ND | <0.16 | <1.1 | <0.38 | ***0.375*** |
| | 10/18/2013 | 315.48 | 16.91 | NA | 298.57 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.557*** |
| | 1/17/2014 | 315.48 | 17.55 | NA | 297.93 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.845*** |
| | 4/25/2014 | 315.48 | 17.38 | NA | 298.10 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.809*** |
| | 7/8/2014 | 315.48 | 17.28 | NA | 298.20 | 0.27 J | <0.22 | <0.40 | <0.20 | 0.27 | <0.26 | <0.34 | <0.038 | <0.080 |
| | 10/14/2014 | 315.48 | 17.78 | NA | 297.70 | 0.22 J | <0.22 | <0.40 | <0.20 | 0.22 | <0.26 | <0.34 | <0.038 | ***0.693*** |
| | 1/15/2015 | 315.48 | 18.03 | NA | 297.45 | <0.21 | <0.22 | <0.40 | <0.20 | ND | <0.26 | <0.34 | <0.038 | ***0.499*** |

*Table 1*

**GROUNDWATER GAUGING AND ANALYTICAL DATA SUMMARY**

Pilot Travel Center #290
31 Heather Lane
Perryville, Maryland

| Well ID | Date | Well Elevation | DTW | Product Thickness | GW Elevation (Corrected) | Benzene (µg/l) | Toluene (µg/l) | Ethyl-benzene (µg/l) | Total Xylenes (µg/l) | BTEX (µg/l) | MTBE (µg/l) | Naphthalene (ug/l) | TPH-GRO (mg/L) | TPH - DRO (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-7** | 4/23/2009 | 317.09 | 15.16 | NA | 301.93 | ***24*** | <5.0 | <5.0 | <5.0 | 24 | <5.0 | <5.0 | ***0.13*** | ***2.3*** |
| | 7/20/2009 | 317.09 | 16.29 | NA | 300.8 | ***19*** | <5.0 | <5.0 | <5.0 | 19 | <5.0 | <5.0 | ***0.14*** | ***1.6*** |
| | 10/29/2009 | 317.09 | 17.17 | NA | 299.92 | ***22*** | <1.0 | 1.3 | 1.6 | 24.9 | <1.0 | <1.0 | ***0.19*** | ***3.2*** |
| | 1/18/2010 | 317.09 | 17.11 | NA | 299.98 | ***12*** | <1.0 | <1.0 | 1.1 | 13.1 | <1.0 | <0.1 | ***0.11*** | ***2.4*** |
| | 4/27/2010 | 317.09 | 15.96 | NA | 301.13 | ***13*** | <1.0 | <1.0 | 4 | 17 | <1.0 | ***3.1*** | <0.1 | ***2.8*** |
| | 7/27/2010 | 317.09 | 17.08 | NA | 300.01 | ***11*** | <1.0 | <1.0 | 1.1 | 12.1 | <1.0 | ***1.1*** | ***0.11*** | ***1.8*** |
| | 10/28/2010 | 317.09 | 17.03 | NA | 300.06 | ***7.8*** | <1.0 | <1.0 | 1.2 | 9 | <1.0 | <1.0 | ***0.11*** | ***1.5*** |
| | 1/24/2011 | 317.09 | 18.13 | NA | 298.96 | ***5*** | <1.0 | <1.0 | 0.32 J | 5.32 | 0.42 J | NA | <0.011 | ***2.66*** |
| | 4/20/2011 | 317.09 | 15.99 | NA | 301.1 | 4.7 | <1.0 | 0.67 J | 0.86 J | 6.23 | <1.0 | NA | <0.011 | ***8.43*** |
| | 7/7/2011 | 317.09 | 15.99 | NA | 301.1 | 4.8 | <0.15 | 0.70J | 1.5 | 7.0 | <1.0 | ***3.0 J*** | <0.016 | ***9.61*** |
| | 10/24/2011 | 317.09 | 14.79 | NA | 302.3 | 2.2 | <1.0 | 0.23 J | 2.3 | 4.7 | <1.0 | NA | <0.016 | ***5.33*** |
| | 1/9/2012 | 317.09 | 15.2 | NA | 301.89 | ***6.3*** | 0.4 | 2.8 | 1.6 | 11.1 | <1.0 | NA | <0.016 | ***2.68*** |
| | 4/19/2012 | 317.09 | 16.04 | NA | 301.05 | 4.4 | <1.0 | 1.4 | 0.53 J | 6.3 | <1.0 | NA | <0.016 | ***5.02*** |
| | 7/23/2012 | 317.09 | 16.26 | NA | 300.83 | 2.7 | <0.23 | 0.57 J | 0.65 J | 3.9 | 0.29 J | NA | <0.040 | ***7.42*** |
| | 10/19/2012 | 317.09 | 17.17 | NA | 299.92 | - | - | - | - | - | - | - | <0.040 | ***2.95*** |
| | 11/15/2012 | 317.09 | 16.09 | NA | 301 | 3.5 | <0.23 | 0.33 J | <0.24 | 3.83 J | 0.21 J | NA | - | - |
| | 1/23/2013 | 317.09 | 13.38 | NA | 303.71 | 1.4 | 0.50 J | 0.25 J | 0.26 J | 2.41 J | <0.16 | ***1.8 J*** | <0.040 | ***10.2*** |
| | 4/26/2013 | 317.09 | 11.91 | NA | 305.18 | 1.9 | <0.23 | 2.0 | 3.1 | 7.0 | <0.16 | ***12.9*** | <0.040 | ***9.36*** |
| | 7/19/2013 | 317.09 | 9.87 | NA | 307.22 | ***8.4*** | 0.58 J | 16.1 | 16.8 | 25.1 | <0.16 | ***76.7*** | ***0.222*** | ***5.7*** |
| | 10/18/2013 | 317.09 | 10.12 | NA | 306.97 | ***5.9*** | <0.44 | 5.0 | 4.6 | 15.5 | <0.29 | ***26.6*** | <0.038 | ***4.28*** |
| | 1/17/2014 | 317.09 | 10.93 | NA | 306.16 | ***5.7*** | <0.44 | 3.8 | 2.4 | 11.9 | <0.29 | ***19.9*** | <0.038 | ***3.08*** |
| | 4/25/2014 | 317.09 | 11.43 | NA | 305.66 | 3.7 | <0.44 | 3.3 | 0.92 J | 7.9 | <0.29 | ***5.7*** | <0.038 | ***1.96*** |
| | 7/8/2014 | 317.09 | 10.25 | NA | 306.84 | 2.3 | <0.22 | 0.83 J | <0.20 | 3.1 | <0.26 | ***9.3*** | <0.038 | ***1.89*** |
| | 10/14/2014 | 317.09 | 12.11 | NA | 304.98 | 3.5 | <0.22 | 3.4 | 0.97 J | 7.9 | <0.26 | ***10.2*** | <0.038 | ***1.89*** |
| | 1/15/2015 | 317.09 | 13.22 | NA | 303.87 | 1.5 | <0.22 | 0.43 J | 0.21 J | 2.1 | <0.26 | <0.34 | <0.038 | ***3.51*** |
| **MW-8** | 4/23/2009 | 318.22 | 15.45 | 1.57 | 303.95 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 7/20/2009 | 318.22 | 15.33 | 2.28 | 304.60 | ***52*** | 92 | 78 | 430 | 652 | <5 | ***310*** | ***6.9*** | ***1000*** |
| | 10/29/2009 | 318.22 | 15.52 | 3.25 | 305.14 | ***23*** | 42 | 64 | 308 | 437 | <5.0 | ***230*** | ***12*** | ***4900*** |
| | 1/18/2010 | 318.22 | 15.48 | 2.35 | 304.50 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 7/27/2010 | 318.22 | 14.5 | 1.18 | 304.61 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 10/28/2010 | 318.22 | 14.42 | 0.52 | 304.19 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 1/24/2011 | 318.22 | 14.68 | 1.19 | 304.43 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 4/20/2011 | 318.22 | 14.14 | 0.92 | 304.77 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 7/7/2011 | 318.22 | 14.25 | 1 | 304.72 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 10/24/2011 | 318.22 | 14.44 | 1.53 | 304.93 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 4/19/2012 | 318.22 | 14.42 | 0.49 | 304.17 | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH | LPH |
| | 7/23/2012 | 318.22 | 14.19 | NA | 304.03 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 10/19/2012 | 318.22 | 14.65 | NA | 303.57 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 1/23/2013 | 318.22 | 4.24 | NA | 313.98 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | 1.3 J | <0.040 | ***20.4*** |
| | 4/26/2013 | 318.22 | 3.87 | NA | 314.35 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | <1.1 | <0.040 | ***2.66*** |
| | 7/19/2013 | 318.22 | 3.47 | NA | 314.75 | <0.24 | <0.23 | <0.23 | <0.24 | ND | <0.16 | <1.1 | <0.038 | ***0.202*** |
| | 10/18/2013 | 318.22 | 3.72 | NA | 314.50 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.319*** |
| | 1/17/2014 | 318.22 | 4.44 | NA | 313.78 | <0.28 | <0.44 | <0.21 | <0.19 | ND | <0.29 | <0.25 | <0.038 | ***0.717*** |
| | 4/25/2014 | 318.22 | 12.04 | NA | 306.18 | <0.28 | <0.44 | 1.1 | 0.62 J | 1.72 J | <0.29 | ***5.6*** | <0.038 | ***15.1*** |
| | 7/8/2014 | 318.22 | 8.03 | NA | 310.19 | <0.21 | <0.22 | <0.40 | 4.7 | 4.7 | <0.26 | ***1.2 J*** | <0.038 | ***3.56*** |
| | 10/14/2014 | 318.22 | 12.66 | NA | 305.56 | 0.38 J | <0.22 | <0.40 | 7.3 | 7.68 | <0.26 | ***1.2 J*** | <0.038 | ***13.0*** |
| | 1/15/2015 | 318.22 | 13.19 | NA | 305.03 | 1.6 | <0.22 | <0.40 | 1.6 | 3.2 | <0.26 | <0.34 | <0.038 | ***6.53*** |
| **MW-9** | 10/28/2010 | 317.73 | 18.96 | NA | 298.77 | 3.3 | <1.0 | <1.0 | <1.0 | 3.3 | 1.2 | <1.0 | <0.05 | ***3.2*** |
| | 1/24/2011 | 317.73 | DRY | NA | NM | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 4/20/2011 | 317.73 | 13.84 | NA | 303.89 | ***6.8*** | 0.38 J | 0.94 J | 1.3 | 9.42 | 0.55 J | NA | <0.011 | ***9.23*** |
| | 7/7/2011 | 317.73 | 13.82 | NA | 303.91 | ***6.9*** | <0.15 | <0.21 | <0.17 | 6.9 | 0.31 J | ***5.1*** | <0.016 | ***5.42*** |
| | 10/24/2011 | 317.73 | 13.71 | NA | 304.02 | ***6.2*** | <1.0 | 0.48 J | 0.57 J | 7.25 | <1.0 | NA | <0.016 | ***7.18*** |
| | 1/9/2012 | 317.73 | 13.84 | NA | 303.89 | 4.8 | <1.0 | 0.33 J | <1.0 | 5.13 | 0.34 J | NA | <0.016 | ***9.12*** |
| | 4/19/2012 | 317.73 | 14 | NA | 303.73 | 3.4 | <1.0 | <1.0 | <1.0 | 3.4 | 0.42 J | NA | 0.016 | ***5.15*** |
| | 7/23/2012 | 317.73 | 21.39 | NA | 296.34 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 10/19/2012 | 317.73 | DRY | NA | NM | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 11/15/2012 | 317.73 | DRY | NA | NM | DRY | DRY | DRY | DRY | DRY | DRY | DRY | - | - |
| | 1/23/2013 | 317.73 | 13.04 | NA | 304.69 | 2.6 | <0.23 | 1.2 | 2.7 | 6.5 | 0.38 J | ***11.1*** | <0.040 | ***31.0*** |
| | 4/26/2013 | 317.73 | 13.34 | NA | 304.39 | ***5.8*** | <0.23 | 1.6 | 2.4 | 9.8 | 0.82 J | ***19.2*** | <0.040 | ***6.2*** |
| | 7/19/2013 | 317.73 | 13.05 | NA | 304.68 | <0.24 | <0.23 | 3.4 | 1.6 | 5 | 0.41 J | ***13.2*** | <0.038 | ***7.07*** |
| | 10/18/2013 | 317.73 | 13.17 | NA | 304.56 | 2.4 | <0.44 | 1 | 1.1 | 4.5 | <0.29 | ***7.5*** | <0.038 | ***3.14*** |
| | 1/17/2014 | 317.73 | 13.33 | NA | 304.4 | 4.0 | <0.44 | 0.32 J | 0.29 J | 4.61 | 0.37 J | ***11.4*** | ***0.214*** | ***4.59*** |
| | 4/25/2014 | 317.73 | 13.55 | NA | 304.18 | 2.3 | <0.44 | 0.39 J | 0.76 J | 3.45 | <0.29 | ***11*** | ***0.38*** | ***168*** |
| | 7/8/2014 | 317.73 | 12.85 | NA | 304.88 | 1.5 | <0.22 | 0.44 J | 0.91 J | 2.85 | <0.26 | ***26.1*** | ***0.346*** | ***89.2*** |
| | 10/14/2014 | 317.73 | 13.52 | NA | 304.21 | 3.0 | <0.22 | <0.40 | 0.23 J | 3.23 | <0.26 | ***6.0*** | <0.038 | ***11.8*** |
| | 1/15/2015 | 317.73 | 13.56 | NA | 304.17 | 1.8 | <0.22 | <0.40 | <0.20 | 1.8 | 0.37 J | ***5.6*** | <0.038 | ***5.07*** |
| **MW-10** | 10/28/2010 | 317.19 | 23.07 | NA | 294.12 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| | 1/24/2011 | 317.19 | 23.84 | NA | 293.35 | ***12.4*** | <3.0 | 14.9 | 65.1 | 87.4 | 8.2 J | NA | ***4.61*** | NA |
| | 4/20/2011 | 317.19 | DRY | NA | NM | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 7/7/2011 | 317.19 | DRY | NA | NM | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| | 10/24/2011 | 317.19 | DRY | NA | NM | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| **MW-10R** | 4/19/2012 | Unknown | 28.01 | NA | Unknown | 0.63 J | <1.0 | <1.0 | <1.0 | 0.63 J | 0.32 J | NA | <0.016 | ***5.06*** |
| | 7/23/2012 | Unknown | 28.04 | NA | Unknown | ***9.2*** | <0.23 | <0.23 | <0.24 | 9.2 | 2.2 | NA | ***0.238*** | ***70.4*** |
| | 10/19/2012 | Unknown | 28.71 | NA | Unknown | - | - | - | - | - | - | - | ***0.205*** | ***3490 a*** |
| | 11/15/2012 | Unknown | 28.53 | 0.03 | Unknown | NS | NS | NS | NS | NS | NS | NS | - | - |
| | 1/23/2013 | Unknown | 27.52 | NA | Unknown | 3.9 | 0.23 | 0.87 J | 2.2 | 7.2 J | 2.2 | ***20.3*** | ***0.936*** | ***766 a*** |
| | 4/26/2013 | Unknown | 27.36 | NA | Unknown | ***5.2*** | <0.23 | <0.23 | 1 | 6.2 | 1.7 | ***7.2*** | <0.040 | ***54.9*** |
| | 7/19/2013 | Unknown | 27.11 | NA | Unknown | ***18.5*** | <0.23 | <0.23 | 1.3 | 19.8 | 1.3 | ***13.3*** | ***0.525*** | ***337*** |
| | 10/18/2013 | Unknown | 27.28 | NA | Unknown | ***12*** | <0.44 | <0.21 | 0.80 J | 12.8 | 0.78 J | ***7.1*** | ***4.48*** | ***116*** |
| | 1/17/2014 | Unknown | 27.52 | NA | Unknown | ***7.9*** | <0.44 | <0.21 | <0.19 | 7.9 | <0.29 | ***10.5*** | ***3.24*** | ***44.3*** |
| | 4/25/2014 | Unknown | 27.82 | NA | Unknown | ***5.7*** | <0.44 | <0.21 | <0.19 | 5.7 | 0.50 J | ***5.3*** | ***0.224*** | ***45.6*** |
| | 7/8/2014 | Unknown | 27.39 | NA | Unknown | ***6.1*** | <0.22 | <0.40 | <0.20 | 6.1 | 0.45 J | ***5.9*** | <0.038 | ***26.7*** |
| | 10/14/2014 | Unknown | 27.58 | NA | Unknown | 4.7 | <0.22 | <0.40 | <0.20 | 4.7 | <0.26 | ***7.9*** | <0.038 | ***23.7*** |
| | 1/15/2015 | Unknown | 27.85 | NA | Unknown | 2.7 | <0.22 | <0.40 | <0.20 | 2.7 | 1.4 | ***3.0 J*** | ***0.220*** | ***15.4*** |

*Table 1*

**GROUNDWATER GAUGING AND ANALYTICAL DATA SUMMARY**

Pilot Travel Center #290
31 Heather Lane
Perryville, Maryland

| Well ID | Date | Well Elevation | DTW | Product Thickness | GW Elevation (Corrected) | Benzene (µg/l) | Toluene (µg/l) | Ethyl-benzene (µg/l) | Total Xylenes (µg/l) | BTEX (µg/l) | MTBE (µg/l) | Naphthalene (ug/l) | TPH-GRO (mg/L) | TPH - DRO (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TF-1** | 1/23/2013 | | 3.02 | NA | | <0.24 | <0.23 | 1.5 | 1.9 | 3.4 | <0.16 | ***6.3*** | <0.040 | ***16.0*** |
| | 4/26/2013 | | 2.72 | NA | | <0.24 | 0.77 J | 1.9 | 8.2 | 10.87 | <0.16 | ***5*** | ***0.216*** | ***13.3*** |
| | 7/19/2013 | | 2.32 | NA | | <0.24 | <0.23 | 0.84 J | 1.6 | 1.24 | <0.16 | ***4 J*** | <0.038 | ***15.8*** |
| | 10/18/2013 | | 2.59 | NA | | <0.28 | <0.44 | 0.28 J | 0.41 J | 0.69 | <0.29 | ***1.7 J*** | <0.038 | ***3.9*** |
| | 1/17/2014 | | 3.28 | NA | | 0.60 J | 5.0 | 1.3 | 7.9 | 14.8 | <0.29 | ***2.3 J*** | <0.038 | ***2.7*** |
| | 4/25/2014 | | 5.39 | NA | | 0.55 | 29.5 | 52.1 | 286 | 368.2 | <0.29 | ***42.3*** | ***1.89*** | ***61.4*** |
| | 7/8/2014 | | 3.73 | NA | | 5.1 | 91.3 | 49.5 | 366 | 511.9 | <0.26 | ***61.3*** | ***6.11*** | ***248 a*** |
| | 10/14/2014 | | 6.11 | NA | | 1.2 | 14.9 | 29.7 | 356 | 401.8 | <0.26 | ***55.5*** | ***5.70*** | ***1370 a*** |
| | 1/15/2015 | | 7.04 | NA | | 2.3 | 4.2 | 12.8 | 170 | 189.3 | <0.26 | ***24.2*** | ***1.25*** | ***328 a*** |
| **TF-2** | 1/23/2013 | | 3.08 | NA | | 0.30 J | <0.23 | 1.1 | 2.2 | 3.6 | <0.16 | ***8.1*** | <0.040 | ***49.3*** |
| | 4/26/2013 | | 2.77 | NA | | <0.24 | 2.9 | 1.6 | 5.1 | 9.6 | <0.16 | ***5.3*** | <0.040 | ***11.5*** |
| | 7/19/2013 | | 2.37 | NA | | <0.24 | <0.23 | 1.5 | 3.2 | 4.7 | <0.16 | ***12.7*** | <0.038 | ***3.81*** |
| | 10/18/2013 | | 2.65 | NA | | <0.28 | <0.44 | 0.60 J | 0.25 J | 0.85 | <0.29 | ***9.2*** | <0.038 | ***2.26*** |
| | 1/17/2014 | | 3.35 | NA | | <0.28 | 0.98 J | 2.0 | 17 | 19.98 | <0.29 | ***2.4 J*** | <0.038 | ***5.02*** |
| | 4/25/2014 | | 5.45 | NA | | 0.73 | 1.2 | 1.7 | 9.1 | 12.73 | <0.29 | ***3.0J*** | ***0.214*** | ***5.62*** |
| | 7/8/2014 | | 3.77 | NA | | 0.53 | 21.3 | 32.4 | 306 | 360.23 | <0.26 | ***62.0*** | ***2.09*** | ***5.14*** |
| | 10/14/2014 | | 6.19 | NA | | 0.30 J | 1.8 | 7.1 | 60.9 | 70.10 | <0.26 | ***13.9*** | ***0.642*** | ***11.7*** |
| | 1/15/2015 | | 7.09 | NA | | 1.7 | 33.5 | 56.9 | 223 | 315.10 | <0.26 | ***31.0*** | ***6.37*** | ***1290 a*** |

**Notes:**

TOC = Top of Casing
LPH = Liquid Phase Hydrocarbons (thickness in feet)
BTEX = Benzene, toluene, ethylbenzene and xylenes
MTBE = methyl tert butyl ether
TPH - GRO = total petroleum hydrocarbons - gasoline range organics
TPH - DRO = total petroleum hydrocarbons - diesel range organics
MDE Groundwater Standards for Type I and Type II Aquifers
***Bolded*** values indicate concentrations above MDE standards.

µg/l = micrograms per liter
mg/l = milligrams per liter
< = Concentration is less than the detection limit

**Table 2 - DPE OPERATION DATA**
**Pliot Travel Center #290**
**31 Heather Lane, Perryville, MD**

| Date | Operating Status | | Operating Hours | Cumulative Operating Hours | Downtime | Inlet Vacuum | MW-2 Vacuum | MW-8 Vacuum | Discharge Stack Temp. | Transfer Pump Total | GW Recovered | Cum. GW Recovered | Pump Rate | Storage Tank Level | Storage Tank Volume | Process Flow Rate | Process Vapor Conc. | TPH Recovery Vapor | TPH Recovery Cum. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Arrival | Departure | [hours] | [hours] | [hours] | [in hg] | [in hg] | [in hg] | [$^{0}$F] | [gallons] | [gallons] | [gallons] | [gal/min] | [inches] | [gallons] | [scfm] | [ppmv] | (lbs) | (lbs) | |
| 5/9/2012 | | Off | 1 | 0 | 0 | 9 | 9.0 | 9.0 | - | 323,610 | 0 | 0 | - | - | - | 50 | **38.0** | 0.069 | 0.1 | |
| 5/11/2012 | On | On | 48 | 48 | 0 | 8 | 6.0 | 7.0 | 130 | 325,580 | 1,970 | 1,970 | 0.68 | 12.00 | 2,146.3 | 50 | **30.0** | 2.601 | 2.7 | |
| 5/16/2012 | On | On | 120 | 168 | 0 | 9 | 6.0 | 8.0 | 125 | 329,310 | 3,730 | 5,700 | 0.52 | 31.68 | 5,805.6 | 50 | 30.0 | 6.502 | 9.2 | |
| 5/18/2012 | On | On | 48 | 216 | 0 | 8 | 2.5 | 7.5 | 125 | 330,960 | 1,650 | 7,350 | 0.57 | 38.28 | 7,094.3 | 50 | 30.0 | 2.601 | 11.8 | |
| 5/25/2012 | Off | On | 144 | 360 | 24 | 9 | 7.0 | 9.0 | 100 | 335,570 | 4,610 | 11,960 | 0.53 | 58.32 | 10,884.6 | 50 | 30.0 | 7.803 | 19.6 | |
| 6/1/2012 | Off | On | 8 | 368 | 160 | 9 | 5.0 | 9.0 | 145 | 335,880 | 310 | 12,270 | 0.65 | 58.32 | 10,884.6 | 50 | 30.0 | 0.433 | 20.0 | |
| 6/8/2012 | On | On | 168 | 536 | 0 | 8.5 | 3.0 | 7.5 | 125 | 343,060 | 7,180 | 19,450 | 0.71 | 52.08 | 9,925.0 | 50 | 30.0 | 9.103 | 29.1 | Lorco disposed of 6,200 gallons from storage tank. |
| 6/15/2012 | Off | On | 53 | 589 | 115 | 8.5 | 4.5 | 8.5 | 140 | 345,330 | 2,270 | 21,720 | 0.71 | 39.48 | 7,278.4 | 50 | **10.0** | 0.957 | 30.1 | Lorco disposed of 6,200 gallons from storage tank. |
| 6/22/2012 | On | On | 168 | 757 | 0 | 9 | 5.0 | 11.5 | 150 | 352,440 | 7,110 | 28,830 | 0.71 | 54.60 | 10,116.5 | 50 | 10.0 | 3.034 | 33.1 | |
| 6/28/2012 | Off | Off | 9 | 766 | 135 | 9 | 6.0 | 8.0 | 100 | 352,840 | 400 | 29,230 | 0.71 | 57.48 | 10,692.2 | 50 | 10.0 | 0.170 | 33.3 | Lorco disposed of 6,489 gallons from storage tank. |
| 7/10/2012 | Off | On | 0 | 766 | 288 | 10 | 6.0 | 13.5 | 110 | 352,850 | 10 | 29,240 | | 57.48 | 10,692.2 | 50 | 10.0 | 0.000 | 33.3 | |
| 7/19/2012 | Off | Off | 0 | 766 | 216 | | 0.0 | 0.0 | | 352,860 | 10 | 29,250 | | 57.48 | 10,692.2 | 50 | 10.0 | 0.000 | 33.3 | |
| 7/23/2012 | Off | On | 0 | 766 | 96 | | 0.0 | 0.0 | | | | | | | | 50 | 10.0 | 0.000 | 33.3 | |
| 7/30/2012 | On | On | 168 | 934 | 0 | 10 | 5.0 | 10.5 | 124 | 352,860 | 0 | 29,250 | | 57.84 | 10,692.2 | 50 | 10.0 | 3.034 | 36.3 | |
| 8/9/2012 | Off | On | 0 | 934 | 240 | 9.5 | 6.0 | 10.0 | 90 | 352,860 | 0 | 29,250 | | 23.64 | 3,964.6 | 50 | 10.0 | 0.000 | 36.3 | Lorco disposed of 3,930 gallons from storage tank. |
| 8/17/2012 | On | On | 192 | 1126 | 0 | 10 | 6.0 | 7.5 | 125 | 358,620 | 5,760 | 35,010 | 0.50 | 29.52 | 5,253.3 | 50 | 10.0 | 3.468 | 39.8 | |
| 8/24/2012 | On | On | 168 | 1294 | 0 | 9.5 | 5.0 | 6.0 | 120 | 363,150 | 4,530 | 39,540 | 0.45 | 49.68 | 8,664.9 | 50 | 10.0 | 3.034 | 42.8 | Lorco disposed of 6,661 gallons from storage tank. |
| 8/31/2012 | On | On | 168 | 1462 | 0 | 10 | 6.0 | 7.0 | 125 | 367,530 | 4,380 | 43,920 | 0.43 | 31.00 | 5,253.3 | 50 | 10.0 | 3.034 | 45.8 | |
| 9/7/2012 | On | On | 168 | 1630 | 0 | 9.5 | 6.0 | 7.5 | 120 | 371,750 | 4,220 | 48,140 | 0.42 | 51.00 | 8,859.0 | 50 | 10.0 | 3.034 | 48.9 | |
| 9/14/2012 | On | On | 168 | 1798 | 0 | 10 | 7.0 | 10.0 | 100 | 375,710 | 3,960 | 52,100 | 0.39 | 65.64 | 11,758.6 | 50 | 10.0 | 3.034 | 51.9 | Lorco disposed of 6,320 gallons from storage tank. |
| 9/21/2012 | On | On | 168 | 1966 | 0 | 9.5 | 8.0 | 8.0 | 100 | 379,940 | 4,230 | 56,330 | 0.42 | 46.20 | 8,019.1 | 50 | 10.0 | 3.034 | 54.9 | Lorco disposed of 6,298 gallons from storage tank. |
| 9/28/2012 | On | On | 168 | 2134 | 0 | 10 | 6.0 | 9.5 | 110 | 383,950 | 4,010 | 60,340 | 0.40 | 29.00 | 4,885.1 | 50 | 10.0 | 3.034 | 58.0 | Raised tube in MW-2; was 18' from TOC, now 16' from TOC |
| 10/5/2012 | On | On | 168 | 2302 | 0 | 8 | 6.0 | 8.0 | 108 | 387,670 | 3,720 | 64,060 | 0.37 | 49.20 | 8,590.3 | 50 | **50.5** | 15.324 | 73.3 | Installed transformer in remediation shed. |
| 10/12/2012 | On | On | 164 | 2466 | 4 | 7 | 5.0 | 5.0 | 80 | 391,120 | 3,450 | 67,510 | 0.35 | 64.44 | 11,463.0 | 50 | 50.5 | 14.959 | 88.3 | Lorco disposed of 6,396 gallons from storage tank. |
| 10/18/2012 | On | Off | 144 | 2610 | 0 | 9.5 | 6.5 | 7.5 | 98 | 395,640 | 4,520 | 72,030 | 0.52 | | | 50 | 50.5 | 13.135 | 101.4 | System shut-down for Groundwater Sampling. |
| 10/19/2012 | Off | On | 0 | 2610 | 28 | 8 | 5.0 | 6.5 | 94 | 395,650 | 10 | 72,040 | | 45.24 | 7,828.7 | 50 | 50.5 | 0.000 | 101.4 | Lorco disposed of 6,298 gallons from storage tank. System Restart. |
| 10/26/2012 | On | On | 168 | 2778 | 0 | 6 | 6.5 | 0.0 | 100 | 399,500 | 3,850 | 75,890 | 0.38 | 22.08 | 3,964.6 | 50 | 50.5 | 15.324 | 116.7 | |
| 11/2/2012 | Off | On | 142 | 2920 | 26 | 8.5 | 6.0 | 6.0 | 85 | 402,765 | 3,265 | 79,155 | 0.38 | 34.44 | 6,173.8 | 50 | **16.1** | 4.129 | 120.9 | System off on arrival. System restarted. |
| 11/8/2012 | On | On | 144 | 3064 | 0 | 8 | 6.0 | 6.0 | 86 | 409,104 | 6,339 | 85,494 | 0.73 | 55.00 | 9,637.8 | 50 | 16.1 | 4.187 | 125.0 | Lorco disposed of 6,443 gallons from the storage tank. |
| 11/15/2012 | Off | Off | 65 | 3129 | 103 | | | | | 411,950 | 2,846 | 88,340 | 0.73 | 26.40 | 4,332.8 | 50 | 16.1 | 1.890 | 126.9 | System found off on arrival. |
| 11/21/2012 | Off | On | 0 | 3129 | 144 | 11 | 6.5 | 7.5 | 70 | 411,950 | 0 | 88,340 | | | | 50 | 16.1 | 0.000 | 126.9 | System restarted. |
| 11/30/2012 | Off | On | 2 | 3131 | 214 | 10 | 6.0 | 6.5 | 76 | 412,040 | 90 | 88,430 | 0.75 | 27.48 | 4,676.1 | 50 | 16.1 | 0.058 | 127.0 | System found off on arrival. Lorco disposed of 4678 gallons from storage tank. System restarted. |
| 12/7/2012 | On | On | 168 | 3299 | 0 | 10 | 5.0 | 6.0 | 72 | 415,520 | 3,480 | 91,910 | 0.35 | 22.20 | 3,624.5 | 50 | **4.4** | 1.335 | 128.3 | |
| 12/21/2012 | On | On | 336 | 3635 | 0 | 9 | 6.0 | 7.5 | 80 | 421,240 | 5,720 | 97,630 | 0.28 | 52.08 | 9,054.7 | 50 | 4.4 | 2.670 | 131.0 | Space heater put in compound for winter. |
| 12/28/2012 | On | On | 168 | 3803 | 0 | 10.5 | 5.5 | 6.0 | 72 | 424,220 | 2,980 | 100,610 | 0.30 | 64.80 | 11,566.9 | 50 | 4.4 | 1.335 | 132.3 | Lorco disposed of 6,348 gallons from the storage tank. |
| 1/4/2013 | Off | On | 35 | 3838 | 133 | 15.5 | 12.0 | 14.0 | 80 | 430,380 | 6,160 | 106,770 | 2.93 | 59.16 | 10,412.1 | 50 | **16.5** | 1.043 | 133.4 | Discharge Line to storage tank was insulated to prevent freezing. |
| 1/11/2013 | On | On | 168 | 4006 | 0 | 9.5 | 6.0 | 5.5 | 74 | 439,180 | 8,800 | 115,570 | 0.87 | 96.24 | 17,358.2 | 50 | 16.5 | 5.007 | 138.4 | Lorco disposed of 6,444 gallons from the storage tank. |
| 1/18/2013 | On | On | 168 | 4174 | 0 | 9.5 | 6.5 | 5.0 | 64 | 448,130 | 8,950 | 124,520 | 0.89 | 91.92 | 16,621.8 | 50 | **2.2** | 0.668 | 139.0 | Lorco disposed of 6,396 gallons from the storage tank. |
| 1/22/2013 | Off | Off | 72 | 4246 | 96 | | | | | 455,000 | 6,870 | 131,390 | 1.59 | 76.08 | 13,665.6 | 50 | | | 139.0 | System off on arrival due to icing issues. System will remain off until repairs can be made. |
| 1/23/2013 | Off | Off | 0 | 4246 | 0 | | | | | 455,000 | 0 | 131,390 | | 76.08 | 13,665.6 | 50 | | | 139.0 | Lorco disposed of 6,348 gallons from the storage tank. Raised tube in MW-2; was 16' TOC, now 13.8' TOC. |
| 1/29/2013 | Off | On | 0 | 4246 | 144 | 15 | 12.0 | 0.0 | 148 | 455,130 | 130 | 131,520 | | 41.76 | 7,115.6 | 51 | 2.2 | 0.000 | 139.0 | System repairs: replaced transfer pump; insulated compound; insulated/heat traced discharge line. Restart. |
| 2/1/2013 | On | On | 72 | 4318 | 0 | 14.5 | 12.0 | 0.0 | 142 | 456,720 | 1,590 | 133,110 | 0.37 | 50.52 | 8,762.4 | 52 | **2.2** | 0.286 | 139.3 | |
| 2/8/2013 | On | On | 168 | 4486 | 0 | 15 | 12.0 | 0.0 | 150 | 459,770 | 3,050 | 136,160 | 0.30 | 64.92 | 11,566.4 | 52 | **3.8** | 1.153 | 140.5 | |
| 2/15/2013 | Off | On | 18 | 4504 | 150 | 12.5 | 10.0 | 0.0 | 118 | 460,110 | 340 | 136,500 | 0.32 | 65.52 | 11,662.8 | 52 | 3.8 | 0.122 | 140.6 | System off on arrival from high level. Lorco disposed of 4,891 gallons from the storage tank. |
| 2/22/2013 | Off | On | 28 | 4532 | 140 | 9 | 9.0 | 0.0 | 120 | 460,720 | 610 | 137,110 | 0.36 | 46.00 | 7,882.5 | 52 | 3.8 | 0.193 | 140.8 | System off on arrival from high level. |
| 3/1/2013 | Off | On | 1 | 4534 | 167 | 11 | 7.5 | 9.0 | 100 | 460,760 | 40 | 137,150 | 0.51 | 46.08 | 7,882.5 | 52 | **3.4** | 0.008 | 140.8 | System off on arrival from high level. Altered drop tube depth in MW-2: 15 ft. Turned MW-8 on. |
| 3/8/2013 | On | On | 166 | 4700 | 0 | 10 | 8.0 | 10.0 | 130 | 466,370 | 5,610 | 142,760 | 0.56 | 70.92 | 12,713.7 | 52 | **1.0** | 0.300 | 141.1 | |
| 3/15/2013 | Off | On | 72 | 4772 | 96 | 9 | 6.0 | 7.0 | 120 | 468,910 | 2,540 | 145,300 | 0.59 | 81.12 | 14,596.7 | 52 | **1.8** | 0.235 | 141.3 | System off on arrival from high level. Lorco disposed of 6,396 gallons from the storage tank. |
| 3/22/2013 | Off | On | 7 | 4779 | 161 | 9.5 | 7.0 | 8.5 | 120 | 469,180 | 270 | 145,570 | 0.66 | 49.68 | 8,567.3 | 52 | **1.9** | 0.023 | 141.4 | System off on arrival from high level. Changed high level float switch in knock-out tank. |
| 3/29/2013 | On | On | 167 | 4946 | 0 | 10 | 7.0 | 11.0 | 140 | 475,890 | 6,710 | 152,280 | 0.67 | 74.04 | 13,284.8 | 52 | **2.2** | 0.664 | 142.0 | |
| 4/5/2013 | On | On | 166 | 5112 | 0 | 9 | 5.5 | 7.0 | 112 | 483,747 | 7,857 | 160,137 | 0.79 | 101.50 | 18,370.8 | 52 | **6.1** | 1.827 | 143.9 | Lorco disposed of 6,444 gallons from the storage tank. |
| 4/12/2013 | On | On | 169 | 5281 | 0 | 8 | 3.5 | 4.0 | 135 | 493,099 | 9,352 | 169,489 | 0.92 | 59.40 | 10,412.1 | 52 | **2.2** | 0.672 | 144.5 | Lorco disposed of XXXX gallons from the storage tank. Lowered vacuum to pull less water. |
| 4/19/2013 | Off | Off | 108 | 5389 | 60 | | | | | 529,612 | 36,513 | 206,002 | 5.63 | 91.20 | 16,437.7 | 52 | 2.2 | 0.429 | 145.0 | System shut off 4/16 because frac tank was full. Lorco disposed of 6,875 gallons from the storage tank. |
| 4/26/2013 | Off | Off | 2 | 5391 | 168 | 10 | 7.0 | 0.0 | 132 | 529,770 | 159 | 206,160 | 1.39 | 32.64 | 5,459.5 | 52 | **1.4** | 0.005 | 145.0 | Lorco disposed of 6, 266 gallons from the storage tank. Ran pump test to remove product from MW-2. |
| 5/2/2013 | Off | Off | 1 | 5392 | 143 | 9.5 | 10.0 | 0.0 | 130 | 529,820 | 50 | 206,210 | 0.76 | 33.00 | 5,546.3 | 52 | **0.1** | 0.000 | 145.0 | Ran pump test to remove product from MW-2. |
| 5/9/2013 | Off | Off | 3 | 5395 | 165 | 9.5 | 7.0 | 0.0 | 139 | 529,948 | 128 | 206,338 | 0.74 | 33.00 | 5,546.3 | 52 | 0.1 | 0.001 | 145.0 | Ran pump test to remove product from MW-2. |
| 5/17/2013 | Off | Off | 1 | 5396 | 191 | 13.5 | 13.5 | 0.0 | 160 | 530,010 | 62 | 206,400 | 0.74 | 33.60 | 5,546.3 | 52 | **3.8** | 0.010 | 145.0 | Ran pump test to remove product from MW-2. |
| 5/24/2013 | Off | On | 1 | 5397 | 167 | 12.5 | 9.0 | 0.0 | 132 | 530,057 | 47 | 206,447 | 0.78 | 33.12 | 5,546.3 | 52 | 3.8 | 0.007 | 145.0 | Ran pump test to remove product from MW-2. Installed high tank level float in frac tank. |
| 5/31/2013 | On | On | 165 | 5562 | 0 | 13 | 12.0 | 0.0 | 160 | 534,350 | 4,293 | 210,740 | 0.43 | 22.44 | 3,624.5 | 52 | 3.8 | 1.132 | 146.1 | Lorco disposed of 6,489 gallons from storage tank. |
| 6/7/2013 | On | On | 168 | 5730 | 0 | 9.5 | 12.0 | 0.0 | 140 | 538,420 | 4,070 | 214,810 | 0.40 | 9.60 | 1,500.3 | 52 | **0.3** | 0.091 | 146.2 | Lorco disposed of about 5,991 gallons from storage tank. Altered drop tube depth in MW-2: 10.5 ft. |
| 6/14/2013 | On | On | 169 | 5899 | 0 | 14 | 11.0 | 0.0 | 142 | 546,800 | 8,380 | 223,190 | 0.83 | 51.60 | 8,957.3 | 52 | **0.5** | 0.152 | 146.4 | |
| 6/21/2013 | On | On | 166 | 6065 | 0 | 11 | 6.0 | 0.0 | 140 | 548,810 | 2,010 | 225,200 | 0.20 | 60.60 | 10,797.9 | 52 | **0.5** | 0.150 | 146.5 | |
| 6/28/2013 | On | On | 170 | 6235 | 0 | 10 | 6.0 | 0.0 | 153 | 549,130 | 320 | 225,520 | 0.03 | 62.40 | 11,086.7 | 52 | **0.1** | 0.031 | 146.5 | |
| 7/3/2013 | On | On | 118 | 6353 | 0 | 12 | 9.5 | 0.0 | 150 | 549,490 | 360 | 225,880 | 0.05 | 29.40 | 4,850.6 | 52 | 0.1 | 0.021 | 146.6 | Lorco disposed of 6,628 gallons from the storage tank. |
| 7/12/2013 | On | On | 218 | 6571 | 0 | 12 | 8.0 | 0.0 | 150 | 555,660 | 6,170 | 232,050 | 0.47 | 54.84 | 9,637.8 | 52 | **0.6** | 0.237 | 146.8 | |
| 7/18/2013 | On | Off | 144 | 6715 | 0 | | | | | 557,920 | 2,260 | 234,310 | 0.26 | | | 52 | 0.6 | 0.156 | 147.0 | System shut down for upcoming GWS event. |
| 7/19/2013 | Off | On | 0 | 6715 | 0 | 12 | 9.0 | 0.0 | 170 | 557,920 | 0 | 234,310 | | 63.00 | 11,182.9 | 52 | **0.7** | 0.000 | 147.0 | Lorco disposed of 6,442 gallons from the storage tank. |
| 7/26/2013 | On | On | 161 | 6876 | 0 | 11 | 7.0 | 0.0 | 142 | 562,020 | 4,100 | 238,410 | 0.42 | 44.52 | 7,589.2 | 52 | **0.7** | 0.204 | 147.2 | |
| 8/2/2013 | On | On | 170 | 7046 | 0 | 11.5 | 12.0 | 0.0 | 155 | 569,440 | 7,420 | 245,830 | 0.73 | 69.36 | 12,523.1 | 52 | **4.2** | 1.290 | 148.4 | |
| 8/9/2013 | On | On | 165 | 7212 | 0 | 12 | 8.5 | 0.0 | 150 | 569,510 | 70 | 245,900 | 0.01 | 39.48 | 6,583.2 | 52 | **0.0** | 0.000 | 148.4 | Lorco disposed of 6,295 gallons from the storage tank. |
| 8/16/2013 | Off | On | 101 | 7313 | 67 | 16 | 16.0 | 0.0 | 160 | 571,680 | 2,170 | 248,070 | 0.36 | 47.28 | 8,078.5 | 52 | 0.0 | 0.000 | 148.4 | |
| 8/23/2013 | On | On | 166 | 7479 | 0 | 15 | 13.0 | 0.0 | 150 | 579,720 | 8,040 | 256,110 | 0.81 | 83.28 | 14,964.9 | 52 | **34.1** | 10.212 | 158.7 | Lorco disposed of 6,295 gallons from the storage tank. 0.01 feet of product was detected in the storage tank. |
| 8/30/2013 | Off | Off | 161 | 7640 | 7 | | | | | 587,426 | 7,706 | 263,816 | 0.80 | 87.00 | 15,701.3 | 52 | 34.1 | 9.929 | 168.6 | System down on arrival due to high storage tank level. |
| 9/4/2013 | Off | On | 0 | 7640 | 120 | 9.5 | 8.5 | 0.0 | 122 | 587,440 | 14 | 263,830 | 0.57 | | | 52 | 34.1 | 0.025 | 168.6 | Lorco disposed of 6,500 gallons from the storage tank. System restarted. |
| 9/6/2013 | On | On | 47 | 7688 | 0 | 7 | 6.5 | 0.0 | 126 | 588,950 | 1,510 | 265,340 | 0.53 | 58.80 | 10,218.9 | 52 | 34.1 | 2.919 | 171.5 | |
| 9/13/2013 | Off | On | 163 | 7851 | 5 | 6 | 6.0 | 0.0 | 120 | 592,880 | 3,930 | 269,270 | 0.40 | 74.40 | 13,284.8 | 52 | **1.1** | 0.324 | 171.9 | Lorco disposed of 6,443 gallons from the storage tank. |
| 9/20/2013 | On | On | 160 | 8011 | 0 | 7 | 6.0 | 0.0 | 125 | 596,650 | 3,770 | 273,040 | 0.39 | 55.80 | 9,831.7 | 52 | 1.1 | 0.318 | 172.2 | |
| 9/26/2013 | On | On | 154 | 8165 | 0 | 6.5 | 6.0 | 0.0 | 130 | 599,960 | 3,310 | 276,350 | 0.36 | 67.80 | 12,141.3 | 52 | 1.1 | 0.305 | 172.5 | Lorco disposed of 6,534 gallons from the storage tank. |
| 10/4/2013 | On | On | 188 | 8353 | 0 | 7.5 | 6.0 | 0.0 | 132 | 603,699 | 3,739 | 280,089 | 0.33 | 45.96 | 7,882.5 | 52 | **32.3** | 10.980 | 183.5 | Lorco disposed of 6,538 gallons from the storage tank. |
| 10/11/2013 | Off | Off | 80 | 8433 | 88 | | | | | 605,120 | 1,421 | 281,510 | 0.30 | 14.40 | 2,210.4 | 52 | 32.3 | 4.679 | 188.1 | System off on arrival due to KO tank high level. System left off for upcoming GWS event. |

| Date | Operating Status | | Operating Hours | Cumulative Operating Hours | Downtime | Inlet Vacuum | MW-2 Vacuum | MW-8 Vacuum | Discharge Stack Temp. | Transfer Pump Total | GW Recovered | Cum. GW Recovered | Pump Rate | Storage Tank Level | Storage Tank Volume | Process Flow Rate | Process Vapor Conc. | TPH Recovery Vapor | TPH Recovery Cum. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Arrival | Departure | [hours] | [hours] | [hours] | [in hg] | [in hg] | [in hg] | [$^0$F] | [gallons] | [gallons] | [gallons] | [gal/min] | [inches] | [gallons] | [scfm] | [ppmv] | (lbs) | (lbs) | |
| 10/18/2013 | Off | On | 1 | 8434 | 167 | 7 | 6.5 | 0.0 | 122 | 605,150 | 30 | 281,540 | 0.71 | 14.40 | 2,210.4 | 52 | **7.0** | 0.009 | 188.1 | System restarted after GWS event. |
| 10/25/2013 | On | On | 164 | 8597 | 0 | 5 | 5.0 | 0.0 | 105 | 608,010 | 2,860 | 284,400 | 0.29 | 26.16 | 4,326.5 | 52 | **9.1** | 2.689 | 190.8 | |
| 11/1/2013 | On | On | 167 | 8764 | 0 | 8.5 | 7.0 | 0.0 | 132 | 611,020 | 3,010 | 287,410 | 0.30 | 37.20 | 6,238.5 | 52 | **6.3** | 1.896 | 192.7 | |
| 11/8/2013 | On | On | 168 | 8932 | 0 | 7 | 6.0 | 4.0 | 108 | 613,810 | 2,790 | 290,200 | 0.28 | 48.00 | 8,274.2 | 52 | 6.3 | 1.913 | 194.6 | Lorco disposed of 6,394 gallons from the storage tank. Re-started MW-8; drop tube length = 6.5'. |
| 11/15/2013 | On | On | 168 | 9100 | 0 | 7 | 7.0 | 5.5 | 105 | 616,887 | 3,077 | 293,277 | 0.31 | 20.40 | 3,272.2 | 52 | 6.3 | 1.908 | 196.6 | |
| 11/22/2013 | Off | Off | 101 | 9201 | 67 | | | | | 635,050 | 18,164 | 311,440 | 2.99 | 72.00 | 12,904.0 | 52 | 6.3 | 1.154 | 197.7 | System down on arrival due to KO tank high level alarm. System left off pending storage tank vac out. |
| 11/27/2013 | Off | On | 0 | 9202 | 120 | 5 | 4.5 | 2.5 | 100 | 635,150 | 100 | 311,540 | | 72.00 | 12,904.0 | 52 | 6.3 | 0.005 | 197.7 | Lorco disposed of 6,243 gallons from the storage tank. System restarted. |
| 12/6/2013 | Off | On | 72 | 9273 | 145 | 2.5 | 2.5 | 2.0 | 100 | 650,680 | 15,530 | 327,070 | 3.62 | 54.00 | 9,443.7 | 52 | 6.3 | 0.814 | 198.5 | System down on arrival due to high storage tank level. Lorco disposed of 6,360 gallons from the storage tank. |
| 12/13/2013 | On | On | 167 | 9440 | 0 | 4 | 4.0 | 3.5 | 90 | 652,260 | 1,580 | 328,650 | 0.16 | 25.92 | 4,326.5 | 52 | **8.1** | 2.446 | 201.0 | Lorco disposed of 3,794 gallons from the storage tank. Changed drop tube lengths: MW-2 = 11.5' and MW-8 = 10.5'. |
| 12/20/1013 | On | On | 168 | 9609 | 0 | 5 | 4.5 | 5.5 | 96 | 654,820 | 2,560 | 331,210 | 0.25 | 13.80 | 2,210.1 | 52 | 8.1 | 2.462 | 203.4 | |
| 12/27/2013 | On | On | 169 | 9778 | 0 | 5 | 5.0 | 6.0 | 108 | 656,730 | 1,910 | 333,120 | 0.19 | 22.32 | 3,624.5 | 52 | 8.1 | 2.473 | 205.9 | |
| 1/2/2014 | On | On | 145 | 9922 | 0 | 5.5 | 5.0 | 6.5 | 106 | 658,370 | 1,640 | 334,760 | 0.19 | 29.16 | 4,850.6 | 52 | 8.1 | 2.118 | 208.0 | Changed drop tube lengths: MW-2 = 12.5' and MW-8 = 11.5'. |
| 1/10/2014 | On | On | 187 | 10109 | 0 | 5 | 5.0 | 6.0 | 100 | 661,070 | 2,700 | 337,460 | 0.24 | 39.48 | 6,583.2 | 52 | **5.0** | 1.690 | 209.7 | |
| 1/16/2014 | Off | Off | 94 | 10203 | 50 | 6 | 3.0 | 3.0 | 94 | 668,010 | 6,940 | 344,400 | 1.23 | 57.84 | 10,218.9 | 52 | 5.0 | 0.847 | 210.6 | System down on arrival due to KO tank high level alarm. System left off for upcoming GWS event. |
| 1/17/2014 | Off | On | 0 | 10203 | 24 | | | | | 668,010 | 0 | 344,400 | | | | 52 | 5.0 | 0.000 | 210.6 | System restart after GWS event. |
| 1/24/2014 | Off | On | 47 | 10251 | 121 | | | | | 670,690 | 2,680 | 347,080 | 0.94 | 37.26 | 5,372.7 | 52 | 5.0 | 0.427 | 211.0 | Lorco disposed of liquids from the storage tank on 1/20/2014. System off on arrival due to icing issues. System remains off pending replacement parts. |
| 2/3/2014 | On | On | 233 | 10484 | 0 | 7 | 4.0 | 5.0 | | 30 | 30 | 347,110 | 0.00 | 37.26 | 5,372.7 | 52 | 5.0 | 2.104 | 213.1 | Replaced damaged parts. Changed drop tube lengths: MW-2 = 13' and MW-8 = 13'. |
| 2/7/2014 | On | On | 92 | 10576 | 0 | 5.5 | 5.0 | 5.0 | | 1,260 | 1,230 | 348,340 | 0.22 | 39.60 | 6,756.6 | 52 | **3.0** | 0.499 | 213.6 | Placed sump pump in frac tank for circulation. Changed drop tube lengths: MW-2 = 14' and MW-8 = 14'. |
| 2/14/2014 | On | On | 167 | 10743 | 0 | 6.5 | 4.0 | 4.5 | 80 | 4,501 | 3,241 | 351,581 | 0.32 | 55.80 | 9,792.9 | 52 | 3.0 | 0.907 | 214.5 | |
| 2/21/2014 | On | On | 167 | 10910 | 0 | 8 | 5.0 | 6.5 | 80 | 6,820 | 2,319 | 353,900 | 0.23 | 67.80 | 12,141.3 | 52 | 3.0 | 0.904 | 215.4 | Lorco disposed of 6,293 gallons from the storage tank. |
| 2/28/2014 | Off | Off | 123 | 11033 | 45 | | | | | 8,513 | 1,838 | 355,738 | | 45.00 | 7,686.4 | 52 | 3.0 | 0.669 | 216.1 | System down on arrival; suspected capacitor failure. System will remain off pending replacement parts. Lorco disposed of 6,238 gallons. |
| 3/7/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | System will remain off pending replacement parts. |
| 3/14/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 3/21/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 3/28/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 4/4/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 4/11/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 4/17/2014 | Off | Off | 0 | 11033 | 144 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 4/25/2014 | Off | Off | 0 | 11033 | 192 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 5/2/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 5/9/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 5/16/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 5/23/2014 | Off | Off | 0 | 11033 | 168 | | | | | | 0 | 355,738 | | 45.00 | 7,686.4 | 52 | | | 216.1 | Temporary system shut-down to monitor product rebound. |
| 5/30/2014 | Off | On | 1 | 11034 | 167 | 16 | 15.0 | 0.0 | 134 | 8,538 | 8,538 | 364,276 | 0.46 | 10.92 | 1,677.7 | 52 | 3.0 | 0.005 | 216.1 | System restarted. |
| 5/30/2014 | On | On | 0 | 11035 | 0 | 10 | 9.5 | 0.0 | 124 | 8,550 | 12 | 364,288 | 0.50 | 10.92 | 1,677.7 | 52 | 3.0 | 0.002 | 216.1 | |
| 6/6/2014 | On | On | 165 | 11200 | 0 | 11 | 10.0 | 0.0 | 140 | 10,716 | 2,166 | 366,454 | 0.22 | 22.68 | 3,800.3 | 52 | 3.0 | 0.895 | 217.0 | |
| 6/13/2014 | On | On | 169 | 11368 | 0 | 11 | 10.0 | 12.0 | 142 | 12,831 | 2,115 | 368,569 | 0.21 | 35.64 | 5,978.9 | 52 | **31.0** | 9.446 | 226.4 | |
| 6/20/2014 | Off | On | 63 | 11432 | 105 | 10 | 10.5 | 8.5 | 82 | 13,679 | 848 | 369,417 | 0.22 | 39.24 | 6,583.2 | 52 | 31.0 | 3.544 | 230.0 | System down on arrival due to high knock out level alarm. System restarted. |
| 6/25/2014 | Off | Off | 12 | 11444 | 108 | | | | | 13,863 | 184 | 369,601 | 0.25 | 41.52 | 6,934.1 | 52 | 31.0 | 0.678 | 230.6 | System down on arrival due to high knock out level alarm. System left off to monitor product. Lorco disposed of 6,242 gallons. |
| 7/2/2014 | Off | Off | 0 | 11444 | 168 | | | | | | 0 | 369,601 | | 10.80 | 1,677.7 | 52 | | | 230.6 | Temporary system shut-down to monitor product rebound. |
| 7/8/2014 | Off | Off | 0 | 11444 | 144 | | | | | | 0 | 369,601 | | 10.80 | 1,677.7 | 52 | | | 230.6 | Temporary system shut-down to monitor product rebound. |
| 7/16/2014 | Off | Off | 0 | 11444 | 192 | | | | | | 0 | 369,601 | | 10.80 | 1,677.7 | 52 | | | 230.6 | Temporary system shut-down to monitor product rebound. |
| 7/30/2014 | Off | Off | 0 | 11444 | 336 | | | | | | 0 | 369,601 | | 10.80 | 1,677.7 | 52 | | | 230.6 | Temporary system shut-down to monitor product rebound. |
| 8/13/2014 | Off | Off | 0 | 11444 | 336 | | | | | | 0 | 369,601 | | 10.80 | 1,677.7 | 53 | | | 230.6 | Temporary system shut-down to monitor product rebound. |
| 8/27/2014 | Off | Off | 0 | 11444 | 336 | | | | | | 0 | 369,601 | | 10.80 | 1,677.7 | 54 | | | 230.6 | Temporary system shut-down to monitor product rebound. |
| 9/10/2014 | Off | Off | 0 | 11444 | 336 | | | | | 13,871 | 9 | 369,610 | 0.48 | 11.88 | 1,855.2 | 55 | 31.0 | 0.017 | 230.7 | System restarted to remove product from MW-2. System shut off before departure. |
| 9/17/2014 | Off | Off | 0 | 11444 | 168 | | | | | | 0 | 369,610 | | 11.88 | 1,855.2 | 56 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 9/24/2014 | Off | Off | 0 | 11444 | 168 | | | | | | 0 | 369,610 | | 11.88 | 1,855.2 | 57 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 10/1/2014 | Off | Off | 0 | 11444 | 168 | | | | | | 0 | 369,610 | | 11.88 | 1,855.2 | 58 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 10/8/2014 | Off | Off | 0 | 11444 | 168 | | | | | | 0 | 369,610 | | 11.88 | 1,855.2 | 59 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 10/14/2014 | Off | Off | 0 | 11444 | 144 | | | | | | 0 | 369,610 | | 11.88 | 1,855.2 | 60 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 10/29/2014 | Off | Off | 1 | 11445 | 360 | | | | | 13,886 | 15 | 369,624 | 0.49 | 11.88 | 1,855.2 | 61 | 31.0 | 0.028 | 230.7 | System restarted to remove product from MW-2. System shut off before departure. |
| 11/5/2014 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 61 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 11/12/2014 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 61 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 11/19/2014 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 62 | | | 230.7 | Temporary system shut-down to monitor product rebound. Turned on heat trace and heater for winterization. |
| 11/26/2014 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 63 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 12/3/2014 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 64 | | | 230.7 | Temporary system shut-down to monitor product rebound. Response to alarm; sump overfill. |
| 12/17/2014 | Off | Off | 0 | 11445 | 336 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 65 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 12/31/2014 | Off | Off | 0 | 11445 | 336 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 66 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 1/14/2015 | Off | Off | 0 | 11445 | 336 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 67 | | | 230.7 | Temporary system shut-down to monitor product rebound. Bailed product from MW-2. |
| 1/21/2015 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 68 | | | 230.7 | Temporary system shut-down to monitor product rebound. |
| 1/28/2015 | Off | Off | 0 | 11445 | 168 | | | | | | 0 | 369,624 | | 11.88 | 1,855.2 | 69 | | | 230.7 | Temporary system shut-down to monitor product rebound. |

Table 3
Monitoring Well Gauging Data
Pilot #290
Perryville, Maryland

| Date | DTP / DTW [feet] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW-2 | MW-8 | TF-1 | TF-2 | MW-4 | MW-5 | MW-7 | MW-1 | MW-3 | MW-9 | MW-10 | MW-6 |
| 5/9/2012 | 17.16/17.80 | 13.90/14.26 | 8.37/8.38 | 8.46 | 28.02 | 15.02 | 15.94 | 12.26 | 11.28 | -- | -- | 17.90 |
| 5/11/2012 | 15.16/15.17 | 16.00 | 8.29/8.31 | 8.39 | 26.54 | 16.37 | 16.15 | 12.62 | 11.46 | 21.29 | 28.37 | 18.03 |
| 5/16/2012 | 15.14/15.16 | 16.00 | 8.30 | 8.40 | 26.55 | 16.33 | 16.13 | 12.60 | 11.42 | 21.28 | 28.34 | 18.01 |
| 6/15/2012 | 14.75 | 15.2 | 7.91 | 8.00 | 28.10 | 16.35 | 16.06 | 12.57 | 11.34 | 21.30 | -- | -- |
| 7/23/2012 | 14.57 | 14.19 | 10.30 | 10.42 | 26.47 | 16.37 | 16.26 | 12.65 | 11.58 | 21.39 | 28.04 | 18.18 |
| 8/9/2012 | 14.52/14.69 | 14.17/14.21 | 10.09/10.12 | 10.21 | 26.30 | 16.35 | 16.26 | 12.73 | 11.67 | 21.65 | 28.05 | 18.02 |
| 9/7/2012 | 15.71/15.91 | 15.21 | 11.00/11.10 | 11.10/11.18 | 26.31 | 16.75 | 16.94 | 13.40 | 12.15 | dry | 28.53/28.56 | 18.22 |
| 10/5/2012 | 16.20 | 15.30 | 11.00 | 11.12 | 26.49 | 16.78 | 17.24 | 13.49 | 12.45 | dry | 28.66/28.76 | 18.13 |
| 11/8/2012 | 16.33 | -- | 7.42 | -- | 26.41 | 16.78 | 16.30 | 13.36 | sheen/12.01 | dry | 28.59/28.62 | 18.23 |
| 12/7/2012 | 15.60 | 15.20 | 9.80 | 9.90 | 26.50 | 16.72 | 16.57 | 13.42 | 12.12 | dry | 28.47 | 22.85 |
| 1/4/2013 | 18.26 | 15.12 | 3.82 | -- | 26.13 | 16.32 | 14.00 | 12.59 | 11.59 | 14.01 | 27.45 | 18.40 |
| 1/23/2013 | 12.36/12.38 | 4.24 | 3.02 | 3.08 | 28.17 | 16.23 | 13.38 | 11.94 | 11.14 | 13.04 | 27.52 | 18.24 |
| 2/15/2013 | 14.41 | 13.50 | 5.11 | 5.17 | 26.48 | 16.40 | 13.73 | 11.89 | 10.75 | 13.97 | 28.21 | 18.03 |
| 3/1/2013 | sheen/13.74 | 13.31 | 5.88 | 5.92 | 26.33 | 16.24 | 13.87 | 11.82 | 10.66 | 13.79 | 28.06 | 17.95 |
| 4/12/2013 | 14.60 | 14.80 | 4.15 | 4.19 | 26.15 | 16.52 | 13.89 | 11.07 | 10.89 | dry | 28.45 | 17.43 |
| 4/19/2013 | 11.74/11.75 | 4.12 | 2.92 | 2.98 | 25.88 | 16.09 | 11.83 | 9.86 | 10.22 | 13.28 | 27.35 | 17.77 |
| 4/26/2013 | 12.05/12.21 | 3.87 | 2.72 | 2.77 | 25.97 | 16.05 | 11.91 | 10.18 | 9.77 | 13.34 | 27.36 | 17.72 |
| 5/2/2013 | 11.80/11.97 | 3.74 | 2.59 | 2.64 | 26.02 | 16.02 | 11.63 | 9.78 | 9.65 | 13.60 | 27.39 | 17.60 |
| 5/9/2013 | 11.65/12.00 | 3.63 | 2.48 | 2.55 | 25.62 | 16.01 | 11.24 | 8.38 | 9.53 | 13.63 | 27.25/27.30 | 17.35 |
| 5/17/2013 | 11.69/12.28 | 3.63 | 2.48 | 2.54 | 27.9 | 17.96 | 11.77 | 8.70 | 9.52 | 13.86 | 27.35/27.37 | 17.27 |
| 5/24/2013 | 11.33/11.97 | 3.57 | 2.42 | 2.49 | 25.42 | 15.92 | 10.78 | 7.19 | 9.85 | 13.61 | 27.22 | 16.97 |
| 5/31/2013 | 15.22 | 3.57 | 2.41 | 2.46 | 25.82 | 15.9 | 10.75 | 7.24 | 9.12 | 13.71 | 27.48/27.53 | 17.00 |
| 6/7/2013 | 9.17 | 3.28 | 2.12 | 2.20 | 25.50 | 15.82 | 11.06 | 7.13 | 9.10 | 13.47 | 27.42 | 16.90 |
| 6/28/2013 | 4.77 | 3.46 | 2.32 | 2.37 | 25.62 | 15.22 | 9.85 | 6.53 | 6.84 | 13.20 | 27.08 | 16.58 |
| 7/3/2013 | 5.08 | 3.54 | 2.35 | 2.41 | 25.21 | 15.68 | 6.23 | 6.21 | 7.67 | 12.98 | 27.03/27.04 | -- |
| 7/19/2013 | 4.78 | 3.47 | 2.32 | 2.37 | 25.55 | 15.65 | 9.81 | 5.85 | 6.11 | 13.05 | 27.11 | 16.59 |
| 7/26/2013 | 6.41 | 3.49 | -- | 2.40 | -- | -- | 9.36 | -- | -- | 13.16 | 27.15 | -- |
| 8/2/2013 | 10.86 | 3.49 | 2.32 | 2.40 | 25.35 | 15.74 | 9.43 | 5.29 | 6.98 | 12.91 | 27.21/27.28 | 16.19 |
| 8/9/2013 | 8.80 | 3.47 | 2.32 | 2.39 | 25.55 | 15.65 | 9.70 | 5.52 | 6.44 | 13.07 | 27.10 | 15.57 |
| 8/16/2013 | 8.55 | 3.55 | 2.35 | 2.41 | -- | -- | 9.62 | 5.39 | 6.22 | -- | 27.12 | -- |
| 9/6/2013 | 10.91 | 3.65 | 2.49 | 2.55 | 25.57 | 15.74 | 9.71 | 5.70 | 6.68 | 13.07 | 27.38/27.40 | 16.79 |
| 10/11/2013 | 10.97 | 4.04 | 2.86 | 2.92 | 25.67 | 15.70 | 11.08 | 8.05 | 7.22 | 13.15 | 27.21 | 16.82 |
| 10/18/2013 | 11.25/11.41 | 3.72 | 2.59 | 2.65 | 25.71 | 15.73 | 10.12 | 5.94 | 7.08 | 13.17 | 27.28 | 16.91 |
| 11/1/2013 | 10.82 | 4.50 | 3.32 | 3.39 | 25.05 | 15.79 | 9.92 | 5.82 | 8.81 | 13.41 | 27.12 | 16.95 |
| 12/13/2013 | 10.79 | 10.52 | 4.53 | 4.60 | 25.92 | 15.91 | 11.00 | 8.69 | 9.85 | 13.22 | 27.66 | 17.37 |
| 1/17/2014 | 11.84/11.86 | 4.44 | 3.28 | 3.35 | 26.05 | 15.94 | 10.93 | 8.11 | 9.90 | 13.33 | 27.52 | 17.55 |
| 2/7/2014 | 13.16 | 12.21 | 4.58 | 4.64 | 26.25 | 16.24 | 11.77 | 9.65 | 9.81 | 13.84 | 19.97 | 17.58 |
| 3/7/2014 | 13.11 | 12.10 | 5.25 | 5.31 | 26.21 | 15.97 | 11.40 | 9.96 | 9.93 | 13.62 | 27.78 | 17.52 |
| 3/14/2014 | 13.20/13.22 | 12.24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3/21/2014 | 13.07/13.12 | 12.26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3/28/2014 | 13.15/13.17 | 12.28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Table 3
Monitoring Well Gauging Data
Pilot #290
Perryville, Maryland

| Date | DTP / DTW [feet] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW-2 | MW-8 | TF-1 | TF-2 | MW-4 | MW-5 | MW-7 | MW-1 | MW-3 | MW-9 | MW-10 | MW-6 |
| 4/4/2014 | 13.09/13.14 | 12.18 | 5.34 | 5.41 | 26.18 | 16.00 | 11.54 | 9.27 | 10.14 | 13.64 | 27.78 | 17.55 |
| 4/11/2014 | 12.96/13.02 | 12.18 | -- | -- | -- | -- | 11.55 | -- | -- | -- | -- | -- |
| 4/17/2014 | 12.85/12.97 | 12.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4/25/2014 | 12.80/12.87 | 12.04 | 5.39 | 5.45 | 26.14 | 16.07 | 11.43 | 8.65 | 9.84 | 13.55 | 27.82 | 17.38 |
| 5/2/2014 | 11.18/11.25 | 7.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 5/9/2014 | 12.40/12.47 | 11.70 | 4.52 | 4.58 | 25.91 | 16.01 | 10.78 | 7.33 | 9.36 | 13.10 | 27.71 | 17.22 |
| 5/16/2014 | 11.99/12.06 | 11.48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 5/23/2014 | 12.42/12.51 | 11.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 5/30/2014 | 11.88/11.98 | 11.65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 6/6/2014 | 14.19 | 12.29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 6/13/2014 | 14.14 | 12.05 | 4.54 | 4.61 | 25.88 | 16.00 | 10.95 | 7.96 | 9.66 | 13.13 | 27.70 | 17.02 |
| 6/20/2014 | 13.26 | 11.69 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 6/25/2014 | 12.25 | 10.77 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 7/2/2014 | 12.20/12.24 | 10.14 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 7/8/2014 | 11.51/11.56 | 8.03 | 3.73 | 3.77 | 25.93 | 16.00 | 10.25 | 7.21 | 7.94 | 12.85 | 27.39 | 17.28 |
| 7/16/2014 | 10.58/10.61 | 4.82 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 7/30/2014 | 10.97/10.99 | 4.88 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 8/13/2014 | 12.69/12.71 | 11.76 | 4.55 | 4.51 | 25.59 | 15.96 | 9.62 | 8.00 | 8.63 | 12.59 | 27.26 | 17.36 |
| 8/27/2014 | 13.06/13.12 | 12.22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9/10/2014 | 13.40/13.61 | 12.50 | 6.94/6.96 | 7.00 | 26.04 | 16.02 | 12.25 | 10.75 | 9.56 | 13.32 | 27.62 | 17.65 |
| 9/17/2014 | 13.23/13.25 | 12.43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9/24/2014 | 12.41/12.42 | 7.76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10/1/2014 | 13.20 | 12.43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10/8/2014 | 13.22/13.26 | 12.56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10/14/2014 | 13.11/13.12 | 12.79 | 6.11 | 6.19 | 25.95 | 16.70 | 12.11 | 10.71 | 10.14 | 13.52 | 27.58 | 17.78 |
| 10/29/2014 | 13.40/13.50 | 12.64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/5/2014 | 13.11/13.12 | 12.79 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/12/2014 | 13.15/13.17 | 12.83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/19/2014 | 13.23/13.26 | 12.98 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/26/2014 | 12.70/12.75 | 12.97 | 7.19/7.23 | 7.28/7.36 | 19.60 | 16.13 | 13.02 | -- | 10.53 | 13.21 | 27.30 | 17.88 |
| 12/3/2014 | 13.02/13.04 | 12.98 | 6.75/6.77 | 6.81/6.86 | -- | -- | -- | -- | -- | -- | -- | -- |
| 12/17/2014 | 12.65/12.67 | 13.15 | 7.21/7.25 | 7.29/7.31 | 26.1 | 16.19 | 12.89 | 10.80 | 10.72 | 13.47 | 25.03 | 17.93 |
| 12/31/2014 | 13.64/13.66 | 13.25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1/14/2015 | 13.58/13.79 | 13.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1/15/2015 | 13.53/13.56 | 13.19 | 7.04 | 7.09 | 26.34 | 16.17 | 13.22 | 11.64 | 10.88 | 13.56 | 27.85 | 18.03 |
| 1/21/2015 | 14.01/14.04 | 13.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1/28/2015 | 13.96/13.98 | 13.26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 4**
**Geochemical Parameters**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Site Name:** | Pilot #290 | | | | | |
| **Address:** | Heather Lane, Perryville, MD | | | | | |
| **Sovereign Project No.:** | PL203.500 | | | | | |
| **Date/Time:** | January 15, 2015 | | | | | |
| **Weather:** | Partly Sunny, 30° | | | | | |
| **Sample Date:** | 1/15/15 | 1/15/15 | 1/15/15 | 1/15/15 | 1/15/15 | 1/15/15 |
| **Well Permit #:** | | | | | | |
| **Well#:** | **MW-1** | **MW-2** | **MW-3** | **MW-4R** | **MW-5** | **MW-6** |
| Well Diameter (inches) | 4 | 4 | 4 | 4 | 4 | 4 |
| **Pre-Purge Data:** | | | | | | |
| PID/FID Reading (mu): | NM | NM | NM | NM | NM | NM |
| Product Thickness (ft): | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Depth of Well (ft): | 19.96 | NM | 24.71 | 35.19 | 24.30 | 24.75 |
| Depth to Water (ft): | 11.64 | 13.56 | 10.88 | 26.34 | 16.17 | 18.03 |
| Volume of water in well (gallons): | 5.43 | NM | 9.03 | 5.78 | 5.31 | 4.39 |
| pH: | 5.11 | NA | 5.90 | 6.12 | 6.06 | 5.48 |
| Dissolved oxygen (mg/L): | 7.08 | NA | 8.26 | 7.44 | 8.46 | 1.04 |
| Temperature (°C): | 13.59 | NA | 13.68 | 14.62 | 16.00 | 15.41 |
| Turbidity NTU | 83.1 | NA | 44.10 | 46 | 460 | 87.1 |
| Salinity % | 0.4 | NA | 0.7 | 0.7 | 0.0 | 1.2 |
| ORP (mV) | 288 | NA | 131 | -25 | -35 | 128 |
| Specific conductivity mS/cm | 0.752 | NA | 1.42 | 1.420 | 0.000 | 2.26 |
| **Post-Purge Data:** | | | | | | |
| Purge Start Time: | 9:17 | NA | 9:45 | 12:47 | 12:08 | 10:19 |
| Purge Stop Time: | 9:35 | NA | 10:06 | 1:26 | 12:25 | 10:30 |
| Purge Method: | submersible | NA | submersible | submersible | submersible | submersible |
| Purge Rate (gpm): | 1.0 | NA | 1.5 | 1.0 | 1.0 | 1.5 |
| Total Volume Purged (gallons): | 17.0 | NA | 30.0 | 18.0 | 16.0 | 15.0 |
| Depth to Water After Purge (ft): | 15.01 | NA | 11.25 | 30.00 | 18.08 | 22.00 |
| pH: | 5.79 | NA | 5.81 | 5.83 | 6.24 | 5.10 |
| Dissolved oxygen (mg/L): | 5.75 | NA | 8.09 | 7.35 | 6.17 | 4.09 |
| Temperature(°C): | 14.70 | NA | 14.95 | 14.11 | 17.07 | 16.16 |
| Turbidity NTU | 214 | NA | 25.5 | 52.8 | 58.4 | 37.5 |
| Salinity % | 0.5 | NA | 0.7 | 0.7 | 0.8 | 0.9 |
| ORP (mV) | 217 | NA | 116 | -28 | -55 | 161 |
| Specific conductivity mS/cm | 0.944 | NA | 1.50 | 1.37 | 1.60 | 1.87 |
| **Before Sampling Data:** | | | | | | |
| Depth to Water Before Sampling (ft): | 12.40 | NA | 11.25 | 27.00 | 18.08 | 20.00 |
| Sampling Start Time: | 10:00 | NA | 10:15 | 13:30 | 12:40 | 10:40 |
| **After Sampling Data:** | | | | | | |
| Sampling End Time: | 10:05 | NA | 10:20 | 13:35 | 12:45 | 10:45 |
| pH: | 6.18 | NA | 5.81 | 6.19 | 6.29 | 5.51 |
| Dissolved oxygen (mg/L): | 8.51 | NA | 1.82 | 1.87 | 7.19 | 7.99 |
| Temperature(°C): | 12.91 | NA | 14.19 | 15.50 | 15.22 | 15.67 |
| Turbidity NTU | 44.0 | NA | 36.4 | 937 | 47.4 | 71.7 |
| Salinity % | 0.4 | NA | 0.8 | 0.8 | 0.7 | 0.9 |
| ORP (mV) | 83 | NA | 103 | -15 | -36 | 103 |
| Specific conductivity mS/cm | 0.896 | NA | 1.59 | 1.540 | 1.46 | 1.81 |
| Sample Method: | bailer | NA | bailer | bailer | bailer | bailer |
| **Field Observations** | | | | | | |
| Recharge | Good | NA | Good | Good | Good | Good |
| Sheen | None | NA | None | None | None | None |
| Odor | Yes | NA | No | Yes | No | Yes |
| Turbidity | Clear | NA | Clear | Cloudy | Clear | Clear |
| | | | | | | |
| **Notes:** | | | | | | |
| Pump = The purge device used was a Whale pump with dedicated polyethylene tubing. | | | | | | |
| Bailer = The sampling device used was a disposable, dedicated, teflon bailer. | | | | | | |
| mu - meter units, mS - milli Siemens, | | | | | | |
| mg/l - milligrams per liter, gpm - gallons per minute, °C - degrees Celcius, °F - degrees Fahrenheit | | | | | | |

**Table 4**
**Geochemical Parameters**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Site Name:** | Pilot #290 | | | | | |
| **Address:** | Heather Lane, Perryville, MD | | | | | |
| **Sovereign Project No.:** | PL203.500 | | | | | |
| **Date/Time:** | January 15, 2015 | | | | | |
| **Weather:** | Partly Sunny, 30° | | | | | |
| **Sample Date:** | 1/15/15 | 1/15/15 | 1/15/15 | 1/15/15 | 1/15/15 | 1/15/15 |
| **Well Permit #:** | | | | | | |
| **Well#:** | **MW-7** | **MW-8** | **MW-9** | **MW-10R** | **TF-1** | **TF-2** |
| Well Diameter (inches) | 4 | 4 | 4 | 4 | 4 | 4 |
| **Pre-Purge Data:** | | | | | | |
| PID/FID Reading (mu): | NM | NM | NM | NM | NM | NM |
| Product Thickness (ft): | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Depth of Well (ft): | 24.47 | 24.75 | 24.48 | 31.41 | 14.35 | 15.15 |
| Depth to Water (ft): | 13.22 | 13.19 | 13.56 | 27.85 | 7.04 | 7.09 |
| Volume of water in well (gallons): | 7.35 | 7.55 | 7.13 | 2.32 | 4.77 | 5.26 |
| pH: | 6.04 | 6.61 | 6.54 | 6.35 | 6.78 | 6.89 |
| Dissolved oxygen (mg/L): | 7.00 | 7.51 | 2.68 | 6.52 | 3.50 | 0.98 |
| Temperature (°C): | 15.51 | 14.72 | 16.08 | 15.62 | 10.85 | 11.02 |
| Turbidity NTU | 207 | 360 | 464 | 9999 | 70.4 | 51.0 |
| Salinity % | 0.7 | 0.5 | 0.7 | 0.0 | 0.4 | 0.4 |
| ORP (mV) | 111 | -33 | -61 | 1 | -109 | -68 |
| Specific conductivity mS/cm | 1.37 | 0.974 | 1.33 | 1.530 | 0.755 | 0.866 |
| **Post-Purge Data:** | | | | | | |
| Purge Start Time: | 10:40 | 13:13 | 11:40 | 11:13 | 14:30 | 14:05 |
| Purge Stop Time: | 10:57 | 13:37 | 11:53 | 11:28 | 14:46 | 14:22 |
| Purge Method: | submersible | submersible | submersible | submersible | submersible | submersible |
| Purge Rate (gpm): | 1.5 | 1.0 | 2.0 | 0.5 | 1.0 | 1.0 |
| Total Volume Purged (gallons): | 24.0 | 23.0 | 22.0 | 7.5 | 15.0 | 16.0 |
| Depth to Water After Purge (ft): | 15.10 | 15.00 | 18.20 | 30.02 | 10.02 | 8.11 |
| pH: | 5.53 | 6.77 | 6.53 | 6.46 | 6.71 | 6.86 |
| Dissolved oxygen (mg/L): | 8.07 | 7.49 | 0.81 | 1.67 | 3.25 | 8.95 |
| Temperature(°C): | 14.01 | 13.57 | 14.60 | 15.99 | 11.01 | 10.66 |
| Turbidity NTU | 12.2 | 106 | 408 | 539 | 25.9 | 32.4 |
| Salinity % | 0.9 | 0.6 | 0.6 | 0.8 | 0.4 | 0.5 |
| ORP (mV) | 165 | -17 | -64 | -54 | -117 | -133 |
| Specific conductivity mS/cm | 1.79 | 1.18 | 1.28 | 1.57 | 0.734 | 0.968 |
| **Before Sampling Data:** | | | | | | |
| Depth to Water Before Sampling (ft): | 14.00 | 14.10 | 13.55 | 28.00 | 8.00 | 7.50 |
| Sampling Start Time: | 11:10 | 14:30 | 13:00 | 12:20 | 15:10 | 14:45 |
| **After Sampling Data:** | | | | | | |
| Sampling End Time: | 11:15 | 14:35 | 13:05 | 12:25 | 15:15 | 14:50 |
| pH: | 6.20 | 6.73 | 6.28 | 6.45 | 6.59 | 6.93 |
| Dissolved oxygen (mg/L): | 7.07 | 7.38 | 7.72 | 6.71 | 5.72 | 9.01 |
| Temperature(°C): | 14.07 | 13.73 | 14.93 | 15.70 | 11.11 | 10.0 |
| Turbidity NTU | 382 | 73.3 | 65.0 | 158 | 41.3 | 743 |
| Salinity % | 0.7 | 0.6 | 0.6 | 0.8 | 0.3 | 0.4 |
| ORP (mV) | 110 | -19 | -20 | -60 | -100 | -118 |
| Specific conductivity mS/cm | 1.44 | 1.19 | 1.23 | 1.55 | 0.539 | 0.784 |
| Sample Method: | bailer | bailer | bailer | bailer | bailer | bailer |
| **Field Observations** | | | | | | |
| Recharge | Good | Good | Fair | Poor | Good | Fair |
| Sheen | None | Slight | None | Yes | Yes | Heavy |
| Odor | Yes | Yes | Yes | Yes | Yes | Strong |
| Turbidity | Cloudy | Clear | Clear | High | Clear | High |
| | | | | | | |
| **Notes:** | | | | | | |
| Pump = The purge device used was a Whale pump with dedicated polyethylene tubing. | | | | | | |
| Bailer = The sampling device used was a disposable, dedicated, teflon bailer. | | | | | | |
| mu - meter units, mS - milli Siemens, | | | | | | |
| mg/l - milligrams per liter, gpm - gallons per minute, °C - degrees Celcius, °F - degrees Fahrenheit | | | | | | |

# APPENDIX A

Laboratory Analytical Report and Chain-of-Custody Documentation

New Jersey
ACCUTEST LABORATORIES

02/03/15

# Technical Report for

## Pilot Travel Centers LLC

SCNJCH: #290, Heather Lane, Perryville, MD

PL203.500 PO# 290-605-13

Accutest Job Number: JB86533

Sampling Date: 01/15/15

Report to:

Sovereign Consulting

jcuneo@sovcon.com

ATTN: Jacquelyn Cuneo

Total number of pages in report: **69**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

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Accutest LabLink@836937 09:18 03-Feb-2015

# Sample Summary

Pilot Travel Centers LLC

**Job No:** JB86533

SCNJCH: #290, Heather Lane, Perryville, MD
Project No: PL203.500 PO# 290-605-13

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| JB86533-1 | 01/15/15 | 10:00 | DM | 01/16/15 | AQ | Ground Water | MW-1 |
| JB86533-2 | 01/15/15 | 10:15 | DM | 01/16/15 | AQ | Ground Water | MW-3 |
| JB86533-3 | 01/15/15 | 13:30 | DM | 01/16/15 | AQ | Ground Water | MW-4R |
| JB86533-4 | 01/15/15 | 12:40 | DM | 01/16/15 | AQ | Ground Water | MW-5 |
| JB86533-5 | 01/15/15 | 10:40 | DM | 01/16/15 | AQ | Ground Water | MW-6 |
| JB86533-6 | 01/15/15 | 11:10 | DM | 01/16/15 | AQ | Ground Water | MW-7 |
| JB86533-7 | 01/15/15 | 14:30 | DM | 01/16/15 | AQ | Ground Water | MW-8 |
| JB86533-8 | 01/15/15 | 13:00 | DM | 01/16/15 | AQ | Ground Water | MW-9 |
| JB86533-9 | 01/15/15 | 12:20 | DM | 01/16/15 | AQ | Ground Water | MW-10R |
| JB86533-10 | 01/15/15 | 15:10 | DM | 01/16/15 | AQ | Ground Water | TF-1 |
| JB86533-11 | 01/15/15 | 14:45 | DM | 01/16/15 | AQ | Ground Water | TF-2 |

# CASE NARRATIVE / CONFORMANCE SUMMARY

| | | | |
|---|---|---|---|
| **Client:** | Pilot Travel Centers LLC | **Job No:** | JB86533 |
| **Site:** | SCNJCH: #290, Heather Lane, Perryville, MD | **Report Date** | 1/30/2015 7:44:35 PM |

On 01/16/2015, 11 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB86533 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** V1C6072

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB86789-3MS, JB86789-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene are outside control limits for sample JB86789-3MSD. Outside control limits due to matrix interference.
- JB86789-3MSD for 1,2,4-Trichlorobenzene: Outside control limits due to matrix interference.

**Matrix:** AQ **Batch ID:** V1C6073

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB86777-7MS, JB86777-7MSD were used as the QC samples indicated.

**Matrix:** AQ **Batch ID:** VU8870

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB86533-5MS, JB86533-5MSD were used as the QC samples indicated.

## Volatiles by GC By Method SW846 8015C

**Matrix:** AQ **Batch ID:** GLM2774

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB86268-10MS, JB86268-10MSD were used as the QC samples indicated.

## Extractables by GC By Method SW846 8015C

**Matrix:** AQ **Batch ID:** OP81302

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB86533-1MS, JB86533-1MSD were used as the QC samples indicated.
- JB86533-11 for 5a-Androstane: Outside control limits due to dilution.
- JB86533-11 for o-Terphenyl: Outside control limits due to dilution.
- JB86533-11 for Tetracosane-d50: Outside control limits due to dilution.
- JB86533-10 for o-Terphenyl: Outside control limits due to dilution.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.  Data release is authorized by Accutest Laboratories indicated via signature on the report cover

# Summary of Hits



**Job Number:** JB86533
**Account:** Pilot Travel Centers LLC
**Project:** SCNJCH: #290, Heather Lane, Perryville, MD
**Collected:** 01/15/15

3

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **JB86533-1** | **MW-1** | | | | | |
| sec-Butylbenzene | | 2.0 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.35 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Chloroform | | 0.99 J | 1.0 | 0.20 | ug/l | SW846 8260B |
| p-Isopropyltoluene | | 0.48 J | 2.0 | 0.47 | ug/l | SW846 8260B |
| Naphthalene | | 0.54 J | 5.0 | 0.34 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 1.3 J | 2.0 | 0.19 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene | | 3.8 | 2.0 | 0.17 | ug/l | SW846 8260B |
| o-Xylene | | 1.1 | 1.0 | 0.20 | ug/l | SW846 8260B |
| Xylene (total) | | 1.1 | 1.0 | 0.20 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 15.4 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-2** | **MW-3** | | | | | |
| Benzene | | 2.7 | 0.50 | 0.21 | ug/l | SW846 8260B |
| n-Butylbenzene | | 0.79 J | 2.0 | 0.18 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 2.7 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.60 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Isopropylbenzene | | 0.56 J | 1.0 | 0.26 | ug/l | SW846 8260B |
| n-Propylbenzene | | 0.32 J | 2.0 | 0.31 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 0.24 J | 2.0 | 0.19 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 0.971 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-3** | **MW-4R** | | | | | |
| Benzene | | 2.2 | 0.50 | 0.21 | ug/l | SW846 8260B |
| n-Butylbenzene | | 0.25 J | 2.0 | 0.18 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 1.5 J | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.32 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Methyl Tert Butyl Ether | | 3.6 | 1.0 | 0.26 | ug/l | SW846 8260B |
| 4-Methyl-2-pentanone(MIBK) | | 3.2 J | 5.0 | 1.1 | ug/l | SW846 8260B |
| Naphthalene | | 4.4 J | 5.0 | 0.34 | ug/l | SW846 8260B |
| Toluene | | 0.59 J | 1.0 | 0.22 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 0.34 J | 2.0 | 0.19 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 3.48 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-4** | **MW-5** | | | | | |
| sec-Butylbenzene | | 2.4 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.35 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Isopropylbenzene | | 0.46 J | 1.0 | 0.26 | ug/l | SW846 8260B |
| Methyl Tert Butyl Ether | | 1.3 | 1.0 | 0.26 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 1.26 | 0.083 | 0.080 | mg/l | SW846 8015C |

# Summary of Hits

**Job Number:** JB86533
**Account:** Pilot Travel Centers LLC
**Project:** SCNJCH: #290, Heather Lane, Perryville, MD
**Collected:** 01/15/15



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **JB86533-5** | **MW-6** | | | | | |
| Chloroform | | 0.26 J | 1.0 | 0.20 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 0.499 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-6** | **MW-7** | | | | | |
| Benzene | | 1.5 | 0.50 | 0.21 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 3.6 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.93 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Ethylbenzene | | 0.43 J | 1.0 | 0.40 | ug/l | SW846 8260B |
| Isopropylbenzene | | 2.8 | 1.0 | 0.26 | ug/l | SW846 8260B |
| n-Propylbenzene | | 2.0 | 2.0 | 0.31 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 0.24 J | 2.0 | 0.19 | ug/l | SW846 8260B |
| Xylene (total) | | 0.21 J | 1.0 | 0.20 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 3.51 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-7** | **MW-8** | | | | | |
| Benzene | | 1.6 | 0.50 | 0.21 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 0.98 J | 2.0 | 0.47 | ug/l | SW846 8260B |
| Isopropylbenzene | | 0.60 J | 1.0 | 0.26 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 0.80 J | 2.0 | 0.19 | ug/l | SW846 8260B |
| m,p-Xylene | | 0.88 J | 1.0 | 0.45 | ug/l | SW846 8260B |
| o-Xylene | | 0.69 J | 1.0 | 0.20 | ug/l | SW846 8260B |
| Xylene (total) | | 1.6 | 1.0 | 0.20 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 6.53 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-8** | **MW-9** | | | | | |
| Acetone | | 8.7 J | 10 | 2.6 | ug/l | SW846 8260B |
| Benzene | | 1.8 | 0.50 | 0.21 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 3.3 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.56 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Isopropylbenzene | | 2.7 | 1.0 | 0.26 | ug/l | SW846 8260B |
| p-Isopropyltoluene | | 0.51 J | 2.0 | 0.47 | ug/l | SW846 8260B |
| Methyl Tert Butyl Ether | | 0.37 J | 1.0 | 0.26 | ug/l | SW846 8260B |
| Naphthalene | | 5.6 | 5.0 | 0.34 | ug/l | SW846 8260B |
| n-Propylbenzene | | 3.2 | 2.0 | 0.31 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 5.0 | 2.0 | 0.19 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene | | 0.25 J | 2.0 | 0.17 | ug/l | SW846 8260B |
| TPH-DRO (C10-C28) | | 5.07 | 0.083 | 0.080 | mg/l | SW846 8015C |

# Summary of Hits

**Job Number:** JB86533
**Account:** Pilot Travel Centers LLC
**Project:** SCNJCH: #290, Heather Lane, Perryville, MD
**Collected:** 01/15/15



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **JB86533-9** | **MW-10R** | | | | | |
| Benzene | | 2.7 | 0.50 | 0.21 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 2.9 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.95 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Isopropylbenzene | | 0.41 J | 1.0 | 0.26 | ug/l | SW846 8260B |
| Methyl Tert Butyl Ether | | 1.4 | 1.0 | 0.26 | ug/l | SW846 8260B |
| Naphthalene | | 3.0 J | 5.0 | 0.34 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 0.52 J | 2.0 | 0.19 | ug/l | SW846 8260B |
| TPH-GRO (C6-C10) | | 0.220 | 0.20 | 0.038 | mg/l | SW846 8015C |
| TPH-DRO (C10-C28) | | 15.4 | 0.083 | 0.080 | mg/l | SW846 8015C |
| **JB86533-10** | **TF-1** | | | | | |
| Acetone | | 20.9 | 10 | 2.6 | ug/l | SW846 8260B |
| Benzene | | 2.3 | 0.50 | 0.21 | ug/l | SW846 8260B |
| n-Butylbenzene | | 7.1 | 2.0 | 0.18 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 9.5 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.50 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Ethylbenzene | | 12.8 | 1.0 | 0.40 | ug/l | SW846 8260B |
| Isopropylbenzene | | 10.6 | 1.0 | 0.26 | ug/l | SW846 8260B |
| p-Isopropyltoluene | | 10.5 | 2.0 | 0.47 | ug/l | SW846 8260B |
| Naphthalene | | 24.2 | 5.0 | 0.34 | ug/l | SW846 8260B |
| n-Propylbenzene | | 14.0 | 2.0 | 0.31 | ug/l | SW846 8260B |
| Toluene | | 4.2 | 1.0 | 0.22 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | | 252 | 20 | 1.9 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene | | 73.6 | 2.0 | 0.17 | ug/l | SW846 8260B |
| m,p-Xylene | | 87.8 | 1.0 | 0.45 | ug/l | SW846 8260B |
| o-Xylene | | 81.7 | 1.0 | 0.20 | ug/l | SW846 8260B |
| Xylene (total) | | 170 | 1.0 | 0.20 | ug/l | SW846 8260B |
| TPH-GRO (C6-C10) | | 1.25 | 0.20 | 0.038 | mg/l | SW846 8015C |
| TPH-DRO (C10-C28) | | 328 | 1.7 | 1.6 | mg/l | SW846 8015C |
| **JB86533-11** | **TF-2** | | | | | |
| Acetone | | 23.6 | 10 | 2.6 | ug/l | SW846 8260B |
| Benzene | | 1.7 | 0.50 | 0.21 | ug/l | SW846 8260B |
| n-Butylbenzene | | 11.0 | 2.0 | 0.18 | ug/l | SW846 8260B |
| sec-Butylbenzene | | 12.6 | 2.0 | 0.47 | ug/l | SW846 8260B |
| tert-Butylbenzene | | 0.34 J | 2.0 | 0.30 | ug/l | SW846 8260B |
| Ethylbenzene | | 56.9 | 1.0 | 0.40 | ug/l | SW846 8260B |
| Isopropylbenzene | | 15.9 | 1.0 | 0.26 | ug/l | SW846 8260B |
| p-Isopropyltoluene | | 11.1 | 2.0 | 0.47 | ug/l | SW846 8260B |
| Naphthalene | | 31.0 | 5.0 | 0.34 | ug/l | SW846 8260B |
| n-Propylbenzene | | 28.3 | 2.0 | 0.31 | ug/l | SW846 8260B |

# Summary of Hits

**Job Number:** JB86533
**Account:** Pilot Travel Centers LLC
**Project:** SCNJCH: #290, Heather Lane, Perryville, MD
**Collected:** 01/15/15



| Lab Sample ID Client Sample ID<br>Analyte | Result/<br>Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|
| Toluene | 33.5 | 1.0 | 0.22 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | 191 | 2.0 | 0.19 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene | 54.7 | 2.0 | 0.17 | ug/l | SW846 8260B |
| m,p-Xylene | 120 | 1.0 | 0.45 | ug/l | SW846 8260B |
| o-Xylene | 102 | 1.0 | 0.20 | ug/l | SW846 8260B |
| Xylene (total) | 223 | 1.0 | 0.20 | ug/l | SW846 8260B |
| TPH-GRO (C6-C10) | 6.37 | 0.20 | 0.038 | mg/l | SW846 8015C |
| TPH-DRO (C10-C28) | 1290 | 1.7 | 1.6 | mg/l | SW846 8015C |

New Jersey

ACCUTEST LABORATORIES



## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1 | | |
| **Lab Sample ID:** | JB86533-1 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136599.D | 1 | 01/24/15 | ST | n/a | n/a | V1C6072 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.0 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.35 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | 0.99 | 1.0 | 0.20 | ug/l | J |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1 | | |
| **Lab Sample ID:** | JB86533-1 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 0.48 | 2.0 | 0.47 | ug/l | J |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | 0.54 | 5.0 | 0.34 | ug/l | J |
| 103-65-1 | n-Propylbenzene | ND | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.3 | 2.0 | 0.19 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.8 | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | 1.1 | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | 1.1 | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1 | | |
| **Lab Sample ID:** | JB86533-1 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1 | | |
| **Lab Sample ID:** | JB86533-1 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69472.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-1 | | |
| **Lab Sample ID:** | JB86533-1 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Y67541.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Y2586 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 15.4 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 90% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 85% | | 32-138% |
| 438-22-2 | 5a-Androstane | 87% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Lab Sample ID:** | JB86533-2 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136600.D | 1 | 01/24/15 | ST | n/a | n/a | V1C6072 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 2.7 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | 0.79 | 2.0 | 0.18 | ug/l | J |
| 135-98-8 | sec-Butylbenzene | 2.7 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.60 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Lab Sample ID:** | JB86533-2 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 0.56 | 1.0 | 0.26 | ug/l | J |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | 0.32 | 2.0 | 0.31 | ug/l | J |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.24 | 2.0 | 0.19 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Lab Sample ID:** | JB86533-2 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 101% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Lab Sample ID:** | JB86533-2 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69473.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-3 | | |
| **Lab Sample ID:** | JB86533-2 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Y67542.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Y2586 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 0.971 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 71% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 72% | | 32-138% |
| 438-22-2 | 5a-Androstane | 65% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-4R | | |
| **Lab Sample ID:** | JB86533-3 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136601.D | 1 | 01/24/15 | ST | n/a | n/a | V1C6072 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 2.2 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | 0.25 | 2.0 | 0.18 | ug/l | J |
| 135-98-8 | sec-Butylbenzene | 1.5 | 2.0 | 0.47 | ug/l | J |
| 98-06-6 | tert-Butylbenzene | 0.32 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-4R | | |
| **Lab Sample ID:** | JB86533-3 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 3.6 | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | 3.2 | 5.0 | 1.1 | ug/l | J |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | 4.4 | 5.0 | 0.34 | ug/l | J |
| 103-65-1 | n-Propylbenzene | ND | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | 0.59 | 1.0 | 0.22 | ug/l | J |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.34 | 2.0 | 0.19 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-4R | | |
| **Lab Sample ID:** | JB86533-3 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 104% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 77-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-4R | | |
| **Lab Sample ID:** | JB86533-3 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69474.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 98% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-4R | | |
| **Lab Sample ID:** | JB86533-3 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Y67543.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Y2586 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 3.48 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 77% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 76% | | 32-138% |
| 438-22-2 | 5a-Androstane | 69% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-5 | | |
| **Lab Sample ID:** | JB86533-4 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136602.D | 1 | 01/24/15 | ST | n/a | n/a | V1C6072 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.4 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.35 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-5 | | |
| **Lab Sample ID:** | JB86533-4 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 0.46 | 1.0 | 0.26 | ug/l | J |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.3 | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 0.19 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-5 | | |
| **Lab Sample ID:** | JB86533-4 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-5 | | |
| **Lab Sample ID:** | JB86533-4 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69475.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-5 | | |
| **Lab Sample ID:** | JB86533-4 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Y67544.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Y2586 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 1.26 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 76% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 79% | | 32-138% |
| 438-22-2 | 5a-Androstane | 70% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-6 | | |
| **Lab Sample ID:** | JB86533-5 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | U192053.D | 1 | 01/26/15 | NH | n/a | n/a | VU8870 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 2.0 | 0.30 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | 0.26 | 1.0 | 0.20 | ug/l | J |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-6 | | |
| **Lab Sample ID:** | JB86533-5 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 0.19 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-6 | | |
| **Lab Sample ID:** | JB86533-5 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 106% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 97% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-6 | | |
| **Lab Sample ID:** | JB86533-5 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69476.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-6 | | |
| **Lab Sample ID:** | JB86533-5 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45688.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 0.499 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 86% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 89% | | 32-138% |
| 438-22-2 | 5a-Androstane | 83% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Lab Sample ID:** | JB86533-6 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136604.D | 1 | 01/24/15 | ST | n/a | n/a | V1C6072 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 1.5 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 3.6 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.93 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Lab Sample ID:** | JB86533-6 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | 0.43 | 1.0 | 0.40 | ug/l | J |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 2.8 | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | 2.0 | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.24 | 2.0 | 0.19 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | 0.21 | 1.0 | 0.20 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Lab Sample ID:** | JB86533-6 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Lab Sample ID:** | JB86533-6 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69477.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-7 | | |
| **Lab Sample ID:** | JB86533-6 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45689.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 3.51 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 79% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 82% | | 32-138% |
| 438-22-2 | 5a-Androstane | 77% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-8 | | |
| **Lab Sample ID:** | JB86533-7 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | U192054.D | 1 | 01/26/15 | NH | n/a | n/a | VU8870 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 1.6 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 0.98 | 2.0 | 0.47 | ug/l | J |
| 98-06-6 | tert-Butylbenzene | ND | 2.0 | 0.30 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-8 | | |
| **Lab Sample ID:** | JB86533-7 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 0.60 | 1.0 | 0.26 | ug/l | J |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.80 | 2.0 | 0.19 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | 0.88 | 1.0 | 0.45 | ug/l | J |
| 95-47-6 | o-Xylene | 0.69 | 1.0 | 0.20 | ug/l | J |
| 1330-20-7 | Xylene (total) | 1.6 | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-8 | | |
| **Lab Sample ID:** | JB86533-7 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 104% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 97% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-8 | | |
| **Lab Sample ID:** | JB86533-7 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69478.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-8 | | |
| **Lab Sample ID:** | JB86533-7 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45690.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 6.53 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 83% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 86% | | 32-138% |
| 438-22-2 | 5a-Androstane | 81% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-9 | | |
| **Lab Sample ID:** | JB86533-8 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | U192056.D | 1 | 01/26/15 | NH | n/a | n/a | VU8870 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 8.7 | 10 | 2.6 | ug/l | J |
| 71-43-2 | Benzene | 1.8 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 3.3 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.56 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-9 | | |
| **Lab Sample ID:** | JB86533-8 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 2.7 | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 0.51 | 2.0 | 0.47 | ug/l | J |
| 1634-04-4 | Methyl Tert Butyl Ether | 0.37 | 1.0 | 0.26 | ug/l | J |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | 5.6 | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | 3.2 | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 5.0 | 2.0 | 0.19 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.25 | 2.0 | 0.17 | ug/l | J |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-9 | | |
| **Lab Sample ID:** | JB86533-8 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 106% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 100% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-9 | | |
| **Lab Sample ID:** | JB86533-8 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69483.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | ND | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-9 | | |
| **Lab Sample ID:** | JB86533-8 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45691.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 5.07 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 80% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 82% | | 32-138% |
| 438-22-2 | 5a-Androstane | 78% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10R | | |
| **Lab Sample ID:** | JB86533-9 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | U192055.D | 1 | 01/26/15 | NH | n/a | n/a | VU8870 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 2.7 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.9 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.95 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10R | | |
| **Lab Sample ID:** | JB86533-9 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 0.41 | 1.0 | 0.26 | ug/l | J |
| 99-87-6 | p-Isopropyltoluene | ND | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.4 | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | 3.0 | 5.0 | 0.34 | ug/l | J |
| 103-65-1 | n-Propylbenzene | ND | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.52 | 2.0 | 0.19 | ug/l | J |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10R | | |
| **Lab Sample ID:** | JB86533-9 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 111% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 97% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10R | | |
| **Lab Sample ID:** | JB86533-9 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69484.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | 0.220 | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-10R | | |
| **Lab Sample ID:** | JB86533-9 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45692.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 15.4 | 0.083 | 0.080 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 95% | | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 95% | | 32-138% |
| 438-22-2 | 5a-Androstane | 94% | | 31-136% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-1 | | |
| **Lab Sample ID:** | JB86533-10 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136629.D | 1 | 01/26/15 | ST | n/a | n/a | V1C6073 |
| Run #2 | 1C136630.D | 10 | 01/26/15 | ST | n/a | n/a | V1C6073 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 20.9 | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 2.3 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | 7.1 | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 9.5 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.50 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-1 | | |
| **Lab Sample ID:** | JB86533-10 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | 12.8 | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 10.6 | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 10.5 | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | 24.2 | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | 14.0 | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | 4.2 | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 252 [a] | 20 | 1.9 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 73.6 | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | 87.8 | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | 81.7 | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | 170 | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 101% | 76-122% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-1 | | |
| **Lab Sample ID:** | JB86533-10 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 105% | 71-124% |
| 2037-26-5 | Toluene-D8 | 105% | 102% | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | 103% | 77-120% |

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-1 | | |
| **Lab Sample ID:** | JB86533-10 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69488.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | 1.25 | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-1 | | |
| **Lab Sample ID:** | JB86533-10 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45693.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | 2Z45727.D | 20 | 01/22/15 | JM | 01/21/15 | OP81302 | G2Z1695 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | 300 ml | 1.0 ml |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 328 [a] | 1.7 | 1.6 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 82% | 173% [b] | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 117% | 105% | 32-138% |
| 438-22-2 | 5a-Androstane | 76% | 130% | 31-136% |

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-2 | | |
| **Lab Sample ID:** | JB86533-11 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 1C136628.D | 1 | 01/26/15 | ST | n/a | n/a | V1C6073 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 23.6 | 10 | 2.6 | ug/l | |
| 71-43-2 | Benzene | 1.7 | 0.50 | 0.21 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.28 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.49 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.28 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.31 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 0.39 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | 11.0 | 2.0 | 0.18 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 12.6 | 2.0 | 0.47 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 0.34 | 2.0 | 0.30 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.24 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.56 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.20 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.33 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 2.0 | 0.24 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 2.0 | 0.25 | ug/l | |
| 108-20-3 | Di-Isopropyl ether | ND | 2.0 | 0.20 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.2 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.25 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.23 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.16 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.24 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 0.73 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.30 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.33 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.43 | ug/l | |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-2 | | |
| **Lab Sample ID:** | JB86533-11 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.24 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.30 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.21 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.28 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | 56.9 | 1.0 | 0.40 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.29 | ug/l | |
| 98-82-8 | Isopropylbenzene | 15.9 | 1.0 | 0.26 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 11.1 | 2.0 | 0.47 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.26 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.1 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 0.81 | ug/l | |
| 91-20-3 | Naphthalene | 31.0 | 5.0 | 0.34 | ug/l | |
| 103-65-1 | n-Propylbenzene | 28.3 | 2.0 | 0.31 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.26 | ug/l | |
| 75-65-0 | Tert Butyl Alcohol | ND | 10 | 4.7 | ug/l | |
| 994-05-8 | tert-Amyl Methyl Ether | ND | 2.0 | 0.27 | ug/l | |
| 637-92-3 | tert-Butyl Ethyl Ether | ND | 2.0 | 0.21 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.19 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.39 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.35 | ug/l | |
| 108-88-3 | Toluene | 33.5 | 1.0 | 0.22 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.26 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.22 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.28 | ug/l | |
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.25 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.28 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 0.98 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 191 | 2.0 | 0.19 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 54.7 | 2.0 | 0.17 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.17 | ug/l | |
| | m,p-Xylene | 120 | 1.0 | 0.45 | ug/l | |
| 95-47-6 | o-Xylene | 102 | 1.0 | 0.20 | ug/l | |
| 1330-20-7 | Xylene (total) | 223 | 1.0 | 0.20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 76-122% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-2 | | |
| **Lab Sample ID:** | JB86533-11 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

**VOA Full List + Oxygenates**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | | 71-124% |
| 2037-26-5 | Toluene-D8 | 103% | | 78-121% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 77-120% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-2 | | |
| **Lab Sample ID:** | JB86533-11 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | LM69485.D | 1 | 01/21/15 | WO | n/a | n/a | GLM2774 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-GRO (C6-C10) | 6.37 | 0.20 | 0.038 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 62-120% |

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TF-2 | | |
| **Lab Sample ID:** | JB86533-11 | **Date Sampled:** | 01/15/15 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/16/15 |
| **Method:** | SW846 8015C SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | SCNJCH: #290, Heather Lane, Perryville, MD | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2Z45694.D | 1 | 01/21/15 | JM | 01/21/15 | OP81302 | G2Z1694 |
| Run #2 | 2Z45728.D | 20 | 01/23/15 | JM | 01/21/15 | OP81302 | G2Z1695 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 300 ml | 1.0 ml |
| Run #2 | 300 ml | 1.0 ml |

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | TPH-DRO (C10-C28) | 1290 [a] | 1.7 | 1.6 | mg/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 67% | 180% [b] | 36-144% |
| 16416-32-3 | Tetracosane-d50 | 71% | 167% [b] | 32-138% |
| 438-22-2 | 5a-Androstane | 44% | 178% [b] | 31-136% |

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

New Jersey

ACCUTEST LABORATORIES



# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST

GW

# CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3479

Accutest Job #: JB86533

**Client / Reporting Information**

Consultants Name: Sovereign Consulting Inc.
Address: 100 Dobbs Lane, Suite 212
City: Cherry Hill, NJ Zip: 08034
Project Contact: Jennifer Williams
Phone #: 856-325-2099
email : jwilliams@sovcon.com
Collected by: D. Miller/D. Watson

**Project Information**

Project Name: Pilot Perryville, Center SS#290
Street: 31 Heather Lane
City: Perryville State: MD
Project Manager: Jennifer Williams
Project PL203.500
Location ID #
Client Purchase Order #: 290-605-13

**Analytical Information**

| Field ID / Point of Collection | Collection Date | Collection Time | Sampled By | Matrix | # of bottles | Preservation HCL | NaOH | HNO3 | H2SO4 | None | B8015DRO (TPH DRO) | V8015GRO (TPH GRO) | V8260MDVO (MD VOCs, Oxygenates, Naphthalene) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW - 1 | 1/15/2015 | 1000 | DM/DW | GW | 7 | X | | | | | X | X | X | 1 | E36 |
| MW - 3 | 1/15/2015 | 1015 | DM/DW | GW | 7 | X | | | | | X | X | X | 2 | V102 |
| MW - 4R | 1/15/2015 | 1330 | DM/DW | GW | 7 | X | | | | | X | X | X | 3 | |
| MW - 5 | 1/15/2015 | 1240 | DM/DW | GW | 7 | X | | | | | X | X | X | 4 | |
| MW - 6 | 1/15/2015 | 1040 | DM/DW | GW | 7 | X | | | | | X | X | X | 5 | |
| MW - 7 | 1/15/2015 | 1110 | DM/DW | GW | 7 | X | | | | | X | X | X | 6 | |

**Turnaround Information**

- [x] Std. 15 Day Turnaround
- [ ] 7 Day *EMERGENCY*
- [ ] 4 Day *EMERGENCY*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Approved By:

Emergency T/A is for FAX or Lablink Data

**Data Deliverable Information**

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Full Deliverables
- [x] NJ Reduced
- [ ] FULL CLP
- [ ] State Forms
- [ ] Disk Deliverable Format
- [x] EDD Format

NJ Reduce = Results + QC Summary + Partial Raw data

**Accutest Log-in Information**

2x 300 ml RVI 1/16/15

| Relinquished by Sampler: | Date/Time: | Received By: | Relinquished By: | Date/Time: | Received By: |
|---|---|---|---|---|---|
| 1 Dennis L Miller | 1/16/15 | 1 1-16-15 1155 | 2 1-16-15 | 1375 | 2 |
| Relinquished by Sampler: 3 | Date Time: | Received By: 3 | Relinquished By: 4 | Date Time: | Received By: 4 |
| Relinquished by Sampler: 5 | Date Time: | Received By: 5 | Seal # 194 194 intact | Preserve where applicable | On Ice ☑ Temp. 1.8C |

3A Dom

**JB86533: Chain of Custody**
**Page 1 of 3**

# CHAIN OF CUSTODY

ACCUTEST

2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3479

Accutest Job #: JB86533

**Client / Reporting Information**

Consultants Name: Sovereign Consulting Inc.
Address: 100 Dobbs Lane, Suite 212
City: Cherry Hill, NJ Zip: 08034
Project Contact: Jennifer Williams
Phone #: 856-325-2099
email : jwilliams@sovcon.com
Collected by: D. Miller/D. Watson

**Project Information**

Project Name: Pilot Perryville, Center SS#290
Street: 31 Heather Lane
City: Perryville State: MD
Project Manager: Jennifer Williams
Project PL203.500
Location ID #
Client Purchase Order #: 290-605-13

**Analytical Information**

| Field ID / Point of Collection | Collection Date | Collection Time | Sampled By | Matrix | # of bottles | Preservation HCL | NaOH | HNO3 | H2SO4 | None | B8015DRO (TPH DRO) | V8015GRO (TPH GRO) | V8260MDVO (MD VOCs, Oxygenates, Naphthalene) | Accutest Log-in Information |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW - 8 | 1/15/2015 | 1430 | DM/DW | GW | 7 | X | | | | | X | X | X | 7 |
| MW - 9 | 1/15/2015 | 1300 | DM/DW | GW | 7 | X | | | | | X | X | X | 8 |
| MW - 10R | 1/15/2015 | 1220 | DM/DW | GW | 7 | X | | | | | X | X | X | 9 |
| TF - 1 | 1/15/2015 | 1510 | DM/DW | GW | 7 | X | | | | | X | X | X | 10 |
| TF - 2 | 1/15/2015 | 1445 | DM/DW | GW | 7 | X | | | | | X | X | X | 11 |

**Turnaround Information**

- [x] Std. 15 Day Turnaround
- [ ] 7 Day *EMERGENCY*
- [ ] 4 Day *EMERGENCY*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Approved By:

Emergency T/A is for FAX or Lablink Data

**Data Deliverable Information**

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Full Deliverables
- [x] NJ Reduced
- [ ] FULL CLP
- [ ] State Forms
- [ ] Disk Deliverable Format
- [x] EDD Format

NJ Reduce = Results + QC Summary + Partial Raw data

| Relinquished by Sampler: | Date Time: | Received By: | Relinquished By: | Date Time: | Received By: |
|---|---|---|---|---|---|
| 1 | 1/16/15 | 1 Temp 1-16-15 1155 | 2 1-16-15 | 1315 | 2 |
| Relinquished by Sampler: 3 | Date Time: | Received By: 3 | Relinquished By: 4 | Date Time: | Received By: 4 |
| Relinquished by Sampler: 5 | Date Time: | Received By: 5 | Seal # 194 | Preserve where applicable | On Ice / Temp. 1.8 C |

Page 1

ZA Dom

# Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** JB86533 **Client:** _____ **Project:** _____

**Date / Time Received:** 1/16/2015 1:15:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

**Cooler Temps (Initial/Adjusted):** #1: (1.8/1.7); 0

| Cooler Security | Y | or N | | Y | or N |
|---|---|---|---|---|---|
| 1. Custody Seals Present: | ☑ | ☐ | 3. COC Present: | ☑ | ☐ |
| 2. Custody Seals Intact: | ☑ | ☐ | 4. Smpl Dates/Time OK | ☑ | ☐ |

| Cooler Temperature | Y | or N |
|---|---|---|
| 1. Temp criteria achieved: | ☑ | ☐ |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

| Quality Control Preservatio | Y | or N | N/A |
|---|---|---|---|
| 1. Trip Blank present / cooler: | ☐ | ☑ | ☐ |
| 2. Trip Blank listed on COC: | ☐ | ☑ | ☐ |
| 3. Samples preserved properly: | ☑ | ☐ | |
| 4. VOCs headspace free: | ☑ | ☐ | ☐ |

| Sample Integrity - Documentation | Y | or N |
|---|---|---|
| 1. Sample labels present on bottles: | ☑ | ☐ |
| 2. Container labeling complete: | ☑ | ☐ |
| 3. Sample container label / COC agree: | ☑ | ☐ |

| Sample Integrity - Condition | Y | or N |
|---|---|---|
| 1. Sample recvd within HT: | ☑ | ☐ |
| 2. All containers accounted for: | ☑ | ☐ |
| 3. Condition of sample: | Intact | |

| Sample Integrity - Instructions | Y | or N | N/A |
|---|---|---|---|
| 1. Analysis requested is clear: | ☑ | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | ☑ | |
| 3. Sufficient volume recvd for analysis: | ☑ | ☐ | |
| 4. Compositing instructions clear: | ☐ | ☐ | ☑ |
| 5. Filtering instructions clear: | ☐ | ☐ | ☑ |

Comments

Accutest Laboratories
V:732.329.0200
2235 US Highway 130
F: 732.329.3499
Dayton, New Jersey
www/accutest.com



**JB86533: Chain of Custody**
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