Environmental Consulting & Technology, Inc.

September 26, 2016
ECT No.: 13-0685-2000

Mr. Shaun Lehman
MDEQ-OOGM Lansing District Office
Constitution Hall 2 South
525 West Allegan Street
Lansing, MI 48913

Re: **Project Update Report**
Hartland 36 Gas Plant
SE/NE/NW Section 36, T03N-R06E
Hartland Township, Livingston County, Michigan

Dear Mr. Lehman:

This Project Update Report was compiled by Environmental Consulting & Technology, Inc. (ECT) and summarizes groundwater assessment activities completed in response to the release of the chemical Sulfinol® identified during facility decommissioning activities at the Hartland 36 Gas Plant (Site).

Project Location

The Site is located in the SE/NE/NW of Section 36, T03N-R06E, on the south side of Lone Tree Road between North Pleasant Valley Road and South Tipsico Lake Road in Hartland Township, Livingston County, Michigan.

The closest surface waters to the Site are a pond located approximately 0.25 miles west, wetlands located approximately 180 feet southwest, 775 feet southeast, and 0.25 miles northeast, and two ponds associated with a sand and gravel processing facility located approximately 0.5 miles north.

The closest water supply wells to the Site are located on the northern adjacent property (13390 Lone Tree Road) and consist of an irrigation well located approximately 950 feet north of the Site and the residential supply well located approximately 1,075 feet north of the Site. Additional discussion of residential supply wells are presented herein.

A Site Location Map, Site and Surrounding Properties Map, and Site Plan are attached as Figure 1, Figure 2, and Figure 3, respectively.

Project Submittals

The following presents a chronological summary of previous documents submitted to the Michigan Department of Environmental Quality-Office of Oil, Gas, and Minerals (MDEQ-OOGM) by ECT for the Site:

- Soil Closure Report dated February 15, 2016.
- Groundwater Characterization Work Plan dated February 23, 2016.
- Groundwater Characterization Work Plan 2 dated July 8, 2016.

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Project Background

Contaminated soil was discovered in September 2015 during facility decommissioning activities at the former sweetening plant/refrigeration building (sulfolane impact from the chemical Sulfinol®) and former inlet compressor building (used oil impact). Remediation activities (excavation) completed from September 2015 through December 2015 resulted in disposal of 13,481.4 tons of soil at the Venice Park Landfill in Lennon, Michigan. Verification of soil remediation (VSR) samples collected from the excavations confirmed remediation of impacted soils. *Refer to the Soil Closure Report, dated February 15, 2016, for a detailed summary of soil remediation and sampling activities.* Sulfolane impacted soils extended to groundwater at the former sweetening plant/ refrigeration building (apparent source area). A groundwater sample (W-Pit) collected on October 15, 2015 from the excavation reported a concentration of sulfolane at 20,000 micrograms per liter (µg/L).

In order to gather characteristics with regard to sulfolane impact in groundwater, and to determine groundwater flow characteristics, personnel from ECT oversaw and directed the installation of seven monitor wells (MW-1 through MW-7) and one temporary vertical profile monitor well (TMW-6) on October 29-30, 2015. Groundwater samples were collected from TMW-6 on October 30, 2015 from 65-70 feet below ground surface (ft bgs), 55-60 ft bgs, 45-50 ft bgs, and 35-40 ft bgs. Groundwater samples for laboratory analysis of sulfolane were collected from MW-1 through MW-7 on November 4-5, 2015 and January 27, 2016 (no sample was collected from MW-3 on January 27, 2016 due to the access issues) and from the excavation on November 13, 2015. Laboratory analytical results reported sulfolane as non-detect from all monitor wells except MW-7, which reported sulfolane concentrations of 880 µg/L from the November 4-5, 2015 sampling event and 44 µg/L from the January 27, 2016 sampling event. The groundwater sample collected from the excavation reported the concentration of sulfolane at 14,000 µg/L.

A vertical and horizontal control survey of the monitor wells and excavations was completed by Gourdie-Fraser, Inc. on November 18, 2015. Static groundwater levels and top-of-casing (TOC) elevations from the monitor wells were utilized to calculate groundwater elevations for use with contouring software. The direction of groundwater flow, as determined from multiple monitor well gauging events, trends to the northeast.

For additional information regarding the initial groundwater characterization, please refer to the “Groundwater Characterization Work Plan” completed by ECT, dated February 23, 2016.

In order to further refine the extent of groundwater impacted with sulfolane at the Site, and as a precursor to the installation of permanent monitor wells, on June 2, 2016 personnel from ECT oversaw and directed the installation of eight shallow temporary monitor wells (TMW-01 through TMW-05 and TMW-07 through TMW-09) and two temporary vertical profile monitor wells (TMW-010 and TMW-011). The activities were completed in accordance with the “Groundwater Characterization Work Plan”. Soil lithology data collected from TMW-010 identified a clay confining layer from approximately 32-36 feet bgs (end of boring at 36 feet bgs). Soil lithology data collected

from TMW-011 did not identify a confining layer to a depth of approximately 98 feet bgs (boring completion depth). Accordingly, lithology data indicates the confining layer is not continuous across the Site. Concentrations of sulfolane were reported above laboratory detection limits at temporary monitor wells located within and in close proximity to the source area (TMW-04, TMW-05, TMW-07, TMW-08, TMW-09, and TMW-011). Temporary monitor wells TMW-01, TMW-02, and TMW-03 delineated concentrations of sulfolane reported at MW-7 to non-detect. On June 3, 2016 personnel from ECT collected static groundwater levels and groundwater samples from MW-1 through MW-7. Static groundwater levels and resulting groundwater elevations were generally consistent with previous gauging events, depicting a northeasterly flow direction. Sulfolane concentrations were reported non-detect from all monitor wells excepting MW-7, which reported a concentration of 450 µg/L (510 µg/L from duplicate sample).

For additional information regarding the preliminary groundwater characterization, please refer to the "Groundwater Characterization Work Plan 2" completed by ECT, dated July 8, 2016.

Additional Groundwater Characterization

The following section presents groundwater characterization activities completed subsequent to submittal of the Groundwater Characterization Work Plan 2.

Monitor Well Installation

In order to further refine and delineate the extent of groundwater impacted with sulfolane at the Site, as well as monitor groundwater contaminant plume characteristics, personnel from ECT oversaw and directed the installation of eight shallow permanent monitor wells two vertical delineation permanent monitor wells, and a temporary monitor well on July 26-27, 2016. The monitor well locations and TOC elevations were incorporated into existing Site survey data by Gourdie-Fraser Associates (GFA) via an updated horizontal and vertical control survey completed on August 2, 2016. *Monitor well locations are depicted on Figure 3.*

The monitor wells were installed by Shepler Well Drilling of Manton, Michigan utilizing a truck mounted drill rig equipped with 4¼-inch ID hollow stem augers (HSAs). The monitor wells (2-inch diameter PVC) are equipped with 5-foot long screens with the top of the screens for the shallow monitor wells (MW-8, MW-9, MW-10, MW-11, MW-12s, MW-13, MW-15, MW-16) situated near the groundwater table and the vertical delineation monitor wells (MW-6D and MW-12D) with screened intervals of approximately 40-45 feet bgs. Groundwater saturated soils were identified from approximately 18-21 feet below ground surface (ft bgs), depending on location. *Soil boring logs/monitor well construction diagrams are attached.*

The screened intervals for MW-6D and MW-12D were selected in consideration of no sulfolane impact identified at temporary vertical profile monitor wells TMW-6 and TMW-010. Accordingly, the 40-45 foot interval provides a buffer in the event groundwater impacted with sulfolane migrated vertically with the direction of groundwater flow toward the eastern property boundary of the Site.

As a result of access limitations on July 27, 2016, MW-14 was not installed and TMW-012 was advanced at the location of TMW-8. The purpose of TMW-012 was to ascertain the absence or presence of the clay confining layer identified at TMW-011. Continuous split spoon sampling was completed from 25 ft bgs to the boring completion depth of 45 ft bgs. Clay was identified at approximately 42.5-43.5 ft bgs at TMW-012. TMW-012 was installed with a screened interval of approximately 38-43 ft bgs and a groundwater sample was collected using a new disposable bailer. Prior to sample collection, approximately 100 gallons of groundwater was purged from the well. Subsequent to sample collection, TMW-012 was removed from the ground and the resulting borehole was abandoned with bentonite compacted from 41-43.5 ft bgs and bentonite to 20 feet bgs.

Interpolated cross section A-A' approximately bisects the Site from west to east and is attached as Figure 5. Interpolated cross section B-B' approximately bisects the Site from north to south and is attached as Figure 6. The cross sections depict interpolated soil lithology, the groundwater table, and groundwater contaminant concentrations and were updated to reflect soil lithology identified at TMW-012 (soil boring log/monitor well construction diagram for TMW-012 is attached).

Groundwater Sampling

Groundwater samples were collected from MW-4, MW-6, MW-6D, MW-8, MW-9, MW-10, MW-11, MW-12S, MW-12D, MW-13, MW-15, and MW-16 on August 2-3, 2016. MW-7 was sampled on August 11, 2016. Groundwater samples were collected via low-stress sampling methods in general accordance with USEPA EQASOP-GW 001 Region 1 Low-Stress (Low-Flow) SOP Revision 3, dated January 19, 2010. Groundwater samples were collected and analyzed in general accordance with MDEQ-RRD Operational Memorandum No. 2, dated October 22, 2004.

The samples were collected into laboratory supplied containers, placed on ice, and shipped under chain-of-custody protocols to the ALS Environmental laboratory facility located in Holland, Michigan for analysis of sulfolane by USEPA Method 8270D. Laboratory analytical results reported sulfolane as non-detect from all monitor wells except MW-13, which reported the concentration of sulfolane at 6,600 µg/L. *Copies of groundwater analytical reports are attached. Ann additional discussion of groundwater analytical results follows.*

Groundwater Flow Direction

Static groundwater levels were collected from all monitor wells at the Site on August 11, 2016. Static groundwater levels were collected with an electronic water level meter (0.01 feet accuracy). Static groundwater levels and top-of-casing (TOC) elevations from the monitor wells were utilized to calculate groundwater elevations for use with contouring software. Groundwater elevations for existing monitor wells MW-1 through MW-7 were generally consistent with previous gauging events. The resulting groundwater flow direction trends to the east. It should be noted the groundwater elevation for shallow monitor wells MW-5, MW-7, MW-9, and MW-15 were not consistent with other elevations and were not utilized with the contouring software. *Groundwater elevation data is*

included on the attached Table 1 and groundwater flow characteristics are depicted on the attached Figure 4 – Groundwater Flow Diagram.

Aquifer Characteristics

Personnel from ECT were at the Site on August 2, 2016 to complete slug tests at the following monitor wells:

- MW-6, MW-6D, MW-7, MW-11, MW-12S, MW-12D, MW-13, and MW-15.

The slug tests were completed by adding a slug of known volume into each monitor well. Prior to slug insertion or removal, an In-situ Level Troll 500 pressure transducer/data logger was secured in the well. In order to accommodate insertion and removal of a solid slug into the monitor wells, the transducer was situated near the bottom of the well, typically at approximately 1 foot above the bottom of the monitor well. The pressure transducer/data logger was configured to collect a pressure reading in 1 second intervals. Data collection commenced upon stabilization of the pressure exerted on the transducer/data logger by the overlying water column.

Since groundwater at the Site is situated in an unconfined aquifer, the Bouwer and Rice (1976) Slug Test Solution for an Unconfined Aquifer (Bouwer and Rice 1976) was utilized to calculate estimates for the lateral component of saturated hydraulic conductivity at the Site. The following assumptions must be applied in order to use the Bouwer and Rice 1976 solution:

- Aquifer has infinite areal extent.
- Aquifer is homogeneous and of uniform thickness.
- Aquifer potentiometric surface is initially horizontal.
- Test well is fully or partially penetrating.
- A volume of water is injected or discharged instantaneously from the test well.
- Aquifer is confined or unconfined.
- Flow is steady.

USGS Spreadsheets for the Analysis of Aquifer-Test and Slug-Test Data, Version 1.2 By Keith J. Halford and Eve L. Kuniansky were utilized to calculate the hydraulic conductivities below:

Shallow Monitor Wells

Slug Test ID	Hydraulic Conductivity (ft/day)	Slug Test ID	Hydraulic Conductivity (ft/day)
MW-6 Slug In	5.2	MW-6 Slug Out	4.1
MW-7 Slug In	1.7	MW-7 Slug Out	2.5
MW-11 Slug In	12	MW-11 Slug Out	19
MW-12S Slug In	7.1	MW-12S Slug Out	9.5
MW-13 Slug In	0.7	MW-13 Slug Out	0.5
MW-15 Slug In	1.6	MW-15 Slug Out	1.5

Vertical Delineation Monitor Wells

Slug Test ID	Hydraulic Conductivity (ft/day)	Slug Test ID	Hydraulic Conductivity (ft/day)
MW-6D Slug In	31	MW-6D Slug Out	30
MW-6D Slug In 2	32	MW-6D Slug Out 2	30
MW-12D Slug In 2	47	MW-12D Slug Out	87
MW-12D Slug In 3	51	MW-12D Slug Out 3	51

Upon assessing the logarithmic plot of water level displacement versus time data, the slope of the linear regression line is manually adjusted to primarily account for the effects of filter pack drainage. Accordingly, if a plot presented a steep early slope followed by a "second straight line", the slope of the second straight line was used for the hydraulic conductivity estimate.

The average of the 12 hydraulic conductivities from the shallow monitor wells is 5.5 ft/day while the average of the seven hydraulic conductivities from the vertical delineation monitor wells is 39 ft/day. The hydraulic conductivity estimate from test MW-12D Slug Out is considered an outlier and was not utilized in the average calculation. The average hydraulic conductivity estimates are within generally accepted ranges for the sandy/silty soils present in the screened intervals for the shallow monitor wells and sandy/gravelly soils present in the screened intervals for the vertical delineation monitor wells.

Pressure transducer/data logger data and the Bouwer and Rice 1976 solutions are attached.

Groundwater & Contaminant Transport Characteristics

Information gathered from groundwater characterization activities was utilized to calculate aquifer properties presented below.

The effective porosity, η_e, of the water bearing stratum (fine to medium sand with gravel) is estimated to be approximately 0.25 (estimated from published values). The average estimated hydraulic conductivity, K, from slug tests completed on shallow screened monitor wells is 5.5 ft/day. The lateral component of the hydraulic gradient, *i*, was calculated to be 0.0043 ft/ft from groundwater elevations for MW-10 and MW-12 (August 11, 2016 data). Groundwater flow was determined to trend easterly at an estimated velocity, *v*, of 34.5 ft/yr ($v = Ki / \eta_e$). The groundwater contaminant transport velocity, v_c, was calculated to be 18.6 ft/yr ($v_c = v / R_t$), where R_t is the contaminant retardation factor (Freeze and Cherry 1979), calculated at 1.86, as follows:

$$Rt = 1 + \frac{\rho b}{\eta} Kd$$

Where,
R_t = Retardation factor (unitless)
ρ_b = Soil dry bulk density – 1.85 g/cm^3 (estimated)
K_d = Distribution coefficient – 0.14 cm^3/g (Luther *et al* 1998; for till)
η = porosity = 0.3 (estimated – Freeze and Cherry 1979)

The vertical gradient at the MW-6 well cluster is negligible with 0.01 feet of groundwater elevation difference between the well screens. The vertical gradient at the MW-12 well cluster is approximately 0.0021 ft/ft downward, calculated via the mid-point of each well screen.

Potential influences to the direction of groundwater flow in the vicinity of the Site include surface water pumping operations at the sand and gravel processing facility located approximately 0.5 miles north of the Site. Seasonal pumping operations typically run from 8am to 5pm Monday through Friday. Surface water is pumped at a rate of up to 800 gallons per minute (gpm). However, in consideration of the direction of groundwater flow with respect to the location of the pumping operations, the influence appears negligible.

No other hydrogeologic conditions were identified which could potentially influence the direction of groundwater flow at the Site.

Groundwater Analytical Summary & Cleanup Criteria Comparison

No cleanup criteria for sulfolane have currently been established via Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), Public Act 451 of 1994, as amended (Part 201). However, the MDEQ-Remediation and Redevelopment Division (MDEQ-RRD) are in the process of developing health-based screening levels for sulfolane. An interim cleanup criteria for sulfolane of 90 µg/L was established by the MDEQ-OOGM. The following presents a summary and comparison of groundwater analytical results to interim sulfolane cleanup criteria from the August 2016 sampling event completed at the Site:

Monitor wells reported ND (not detected at the reporting limit)

- MW-4, MW-6, MW-6D, MW7, MW-8, MW-9, MW-10, MW-11, MW-12S, MW-12D, MW-15, and MW-16.

Monitor wells with sulfolane reported above MDEQ-OOGM Interim Cleanup Criteria

- MW-13 at 6,600 µg/L.
- TMW-012 at 480 µg/L.

Please refer to the attached Table 2 and Table 3 for a summary of sulfolane concentrations reported in groundwater at the Site.

Residential Water Supply Well Sampling

In August 2016, personnel from ECT collected the following water samples:

- Water supply samples from 13 additional residences.
- Water supply sample from a Type I public supply well (Hartland Meadows).
- Surface water sample from the southwest pond at the sand and gravel processing facility.

Sulfolane was reported non-detect from all water supply well and surface water samples. Laboratory analytical reports from water supply well and surface water samples will be provided as a separate submittal.

In September 2016, personnel from ECT collected water supply samples from approximately 51 residences located out to approximately 1 mile from the Site, including one surface water sample. Laboratory analytical data was pending at the date of this report. As noted above, laboratory analytical reports from water supply well and surface water samples will be provided as a separate submittal.

Continuing Work

The following monitor well installation and groundwater monitoring activities are proposed to continue to address groundwater impacted with sulfolane at the Site.

Monitor Well Installation

In order to monitor sulfolane concentrations in the source area, a shallow screened (approximately 20-25 ft bgs) monitor well and deep screened (35-40 ft bgs) monitor well are warranted. The monitor wells will be installed and constructed consistent with previous monitor well installation activities completed at the Site. Monitor well installation activities will be completed subsequent to completion of Site restoration work.

In order to assess the potential for the clay layer identified from approximately 42.5-43.5 ft bgs at TMW-012 to be a confining layer acting as a barrier to the vertical migration of sulfolane impact, a temporary vertical delineation monitor well (referred to as MW-12DD on Figure 7) will be advanced in the source area in conjunction with the additional monitor wells discussed above. The soil boring for the temporary monitor well will be advanced until a lower confining unit is identified. Groundwater samples are estimated to be collected from 45-50 ft bgs, 70-75 ft bgs and 95-100 ft bgs, adjusted accordingly based on the boring completion depth and soil lithology. Subsequent to sampling, the temporary monitor well will be removed and the resulting borehole will be grouted to seal any confining layers that are penetrated.

Proposed monitor well locations are presented on the attached Figure 7.

Groundwater Monitoring

The two source area monitor wells will be sampled a minimum of three days following installation. Subsequently, monthly and quarterly groundwater monitoring of select monitor wells will be completed. At a minimum, monitoring will include collecting static water levels and groundwater samples.

The following groundwater monitoring schedule is proposed:

- Monthly sampling: MW-4, MW-5, MW-6, MW-6D, MS-12S, and MW-12D.
- Quarterly sampling: All monitor wells.

Groundwater sampling will be completed in accordance with MDEQ-RRD Operational Memorandum No. 2, dated October 22, 2004 and USEPA EQASOP-GW 001 Region 1 Low-Stress (Low-Flow) SOP Revision 3, dated January 19, 2010. Groundwater samples will be submitted to an independent/third party laboratory for analysis of sulfolane by USEPA Method 8270D.

Project Status Reporting

Data obtained from monitor well installation and monthly and quarterly groundwater monitoring will be summarized in Project Status/Update Reports. At a minimum, the reports will include a narrative summary of activities completed, groundwater elevation and analytical summary tables, groundwater flow data, cleanup criteria comparisons, and conclusions and recommendations for project progression.

Pilot Testing

A Pilot Testing Work Plan will be submitted to MDEQ-OOGM in October 2016. The work plan will present an approach to evaluate several remedial alternatives that could be applied to mitigate groundwater impacted with sulfolane at the Site.

Schedule

Installation of permanent monitor wells will be scheduled subsequent to completion of Site restoration activities. The Pilot Testing Work Plan will be submitted to MDEQ-OOGM in October 2016.

Closing

ECT sincerely appreciates the opportunity to provide our consulting services on this important project. Should you have questions or require additional information, please do not hesitate to contact me at your convenience at 231.946.8200 or jlewandowski@ectinc.com.

Sincerely,
ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Jeremy S. Lewandowski
Senior Engineer

Dirk S. Mammen
Principal Scientist

CC: Sean Craven – Merit Energy Company

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site and Surrounding Properties Map
- Figure 3 – Site Plan
- Figure 4 – Groundwater Flow Diagram
- Figure 5 – Cross Section A-A’
- Figure 6 – Cross Section B-B’
- Figure 7 – Proposed Monitor Well Locations
- Table 1 – Groundwater Elevation Data
- Table 2 – Sulfolane Analytical Summary & Cleanup Criteria Comparison – Monitor Wells
- Table 3 – Sulfolane Analytical Summary & Cleanup Criteria Comparison – Temporary Monitor Wells
- Soil Boring/Monitor Well Construction Logs
- Slug Test Solutions and Data
- Laboratory Analytical Reports

FIGURE 1.

SITE LOCATION MAP

Sources: USGS Quad: Kent Lake, 2015; West Highland, 2015; ECT, 2016.

ECT Environmental Consulting & Technology, Inc.

FIGURE 2.

SITE AND SURROUNDING PROPERTIES MAP

Source: Google Earth, 2016.

ECT Environmental Consulting & Technology, Inc.

Legend

Monitor Well

Temporary Monitor Well Location

A — A' Cross Section

Excavation Boundary

Fenceline

FIGURE ADAPTED FROM SURVEY PERFORMED BY:

Gourdie-Fraser
Municipal | Development | Transportation

MERIT ENERGY COMPANY

ECT Environmental Consulting & Technology, Inc.

MERIT ENERGY COMPANY HARTLAND 36 NATURAL GAS PLANT

130685 - 2000
ECT PROJECT NUMBER

DESIGNED BY	CHECKED BY
-	-

DRAWN BY	APPROVED BY
BJB	JSL

SHEET TITLE

SITE PLAN

SCALE: 1" = 50 @ 11x17

0 25' 50'

NORTH

FIGURE

3

Legend

Monitor Well

Temporary Monitor Well Location

Excavation Boundary

GROUNDWATER ELEVATIONS COLLECTED FROM 8/11/16 DATA.

GROUNDWATER ELEVATIONS FOR MW-5, MW-6D, MW-7, MW-9, MW-12D AND MW- 15 NOT INCLUDED IN GROUNDWATER FLOW CALCULATIONS.

GROUNDWATER CONTOUR INTERVAL = 0.1 FT

FIGURE ADAPTED FROM SURVEY PERFORMED BY:

Gourdie-Fraser
Municipal | Development | Transportation

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ECT Environmental Consulting & Technology, Inc.

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SHEET TITLE

GROUNDWATER FLOW DIAGRAM

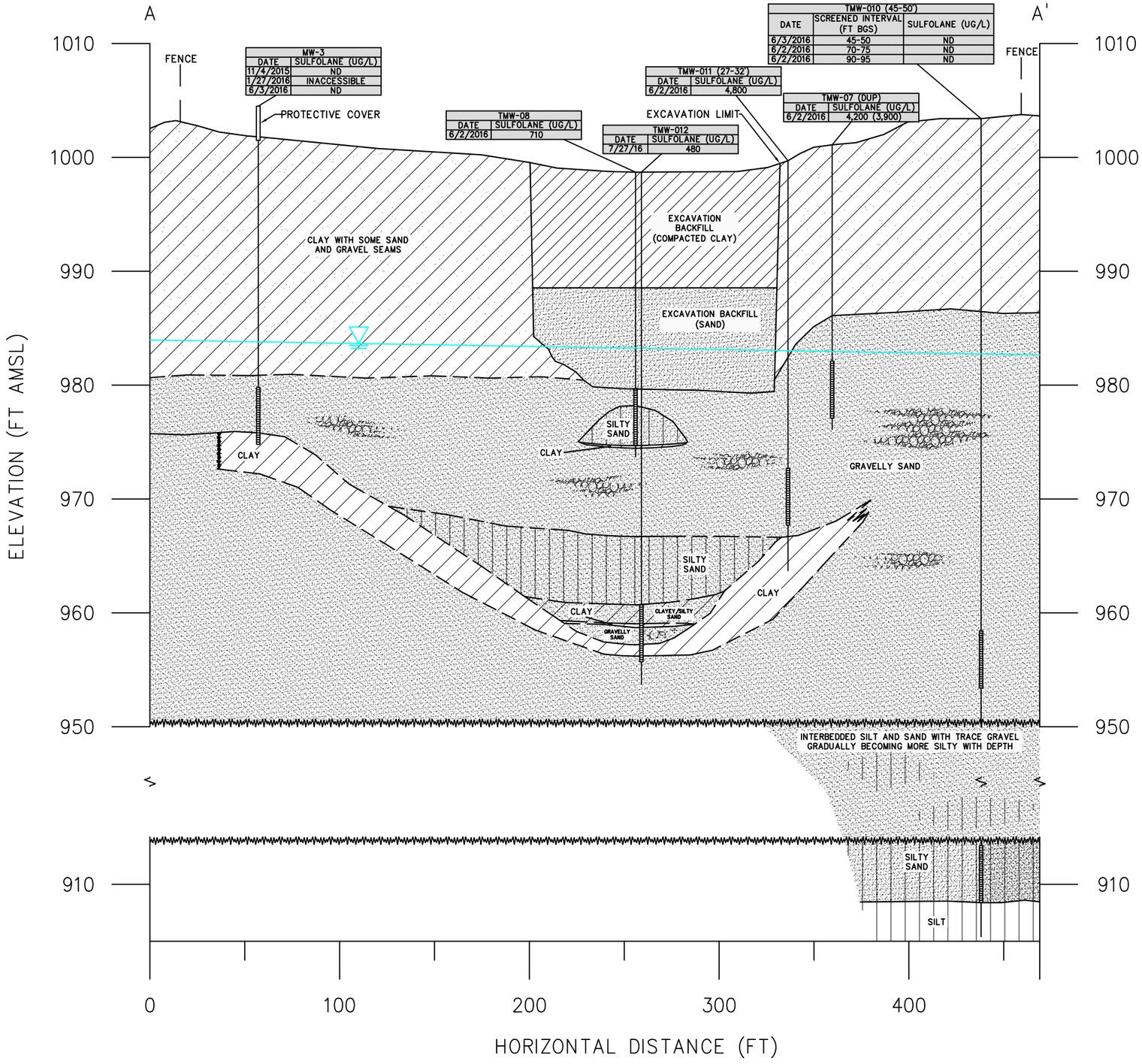
SCALE: 1" = 50 @ 11x17

0 25' 50'

NORTH

FIGURE

4



Legend

Screened Interval (2" PVC 10-Slot)

------ Estimated Soil Layer Boundary

HORIZONTAL SCALE

0 15 30 60

SCALE IN FEET

VERTICAL SCALE

0 2.5 5 10

SCALE IN FEET

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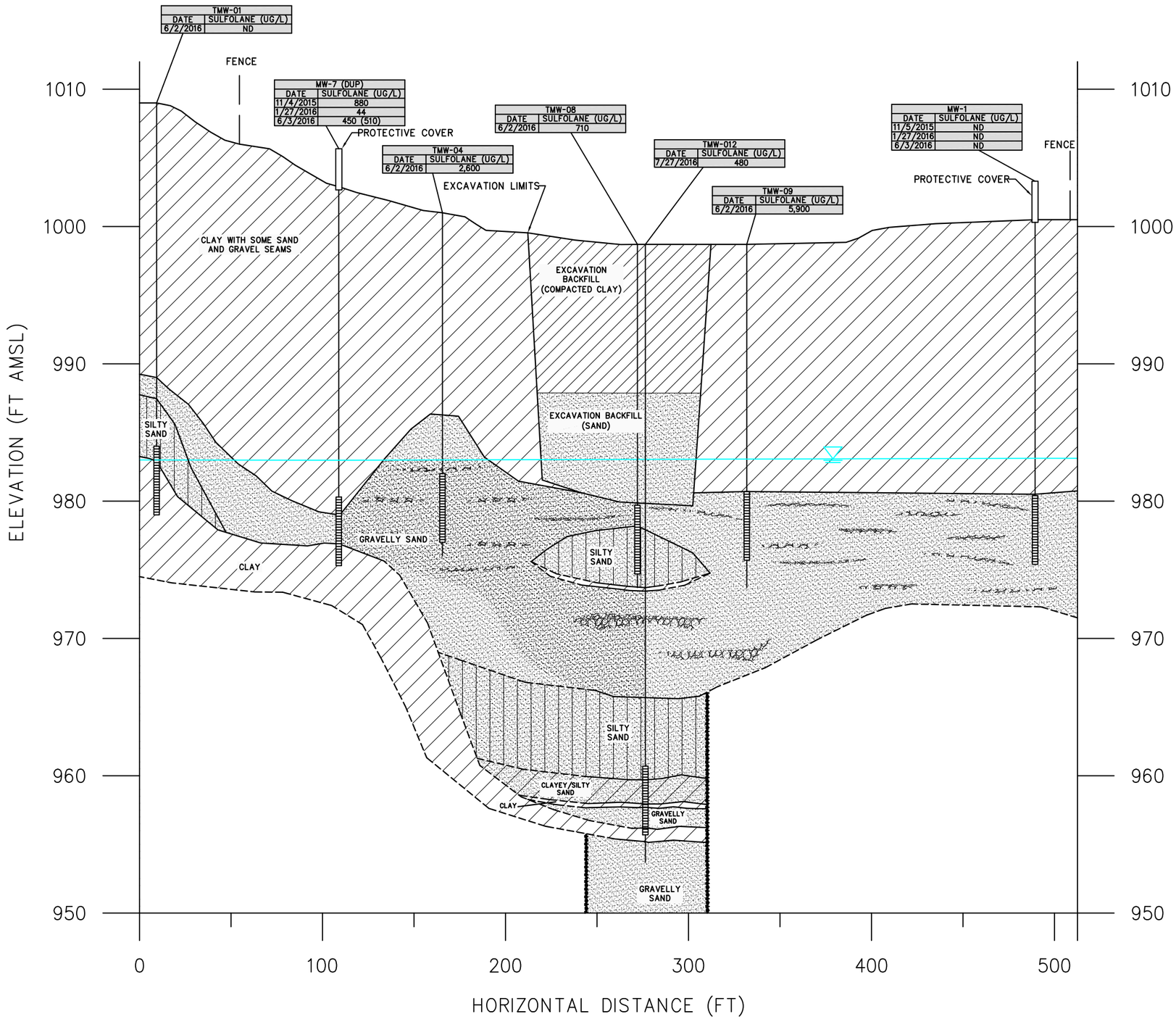
CROSS SECTION A-A'

SEE LEGEND FOR SCALE

FIGURE
5



Legend

Screened Interval (2" PVC 10-Slot)

------ Estimated Soil Layer Boundary

HORIZONTAL SCALE

0 15 30 60

SCALE IN FEET

VERTICAL SCALE

0 2 4 8

SCALE IN FEET

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CROSS SECTION B-B'

SEE LEGEND FOR SCALE

FIGURE

6

Legend

Monitor Well

Temporary Monitor Well

Proposed Monitor Well Location

Excavation Boundary

Fenceline

FIGURE ADAPTED FROM SURVEY PERFORMED BY:

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PROPOSED MONITOR WELL LOCATIONS

SCALE: 1" = 50 @ 11x17

0 25' 50'

NORTH

FIGURE 7

TABLE 1
GROUNDWATER ELEVATION DATA
Hartland 36 Gas Plant
SE/NE/NW Section 36, T03N-R06E, Hartland Township, Livingston County, Michigan
ECT Project #13-0685-2000

30-Oct-15

LOCATION	TOC ELEVATION (ft)	GROUND ELEVATION (ft)	STATIC WATER LEVEL (ft btoc)	GROUNDWATER ELEVATION (ft)	WELL DEPTH (ft btoc)	WELL DEPTH (ft bgs)	STATIC WATER LEVEL (ft bgs)	SCREENED INTERVAL (ft bgs)
MW-1	1003.27	1000.5	20.84	982.43	27.9	25.1	18.07	20.1 - 25.1
MW-2	1002.48	999.2	19.68	982.80	27.4	24.1	16.40	19.1 - 24.1
MW-3	1005.07	1001.8	22.23	982.84	30.3	27.0	18.96	22.0 - 27.0
MW-4	1005.00	1002.8	22.75	982.25	30.3	28.1	20.55	23.1 - 28.1

4-Nov-15

LOCATION	TOC ELEVATION (ft)	GROUND ELEVATION (ft)	STATIC WATER LEVEL (ft btoc)	GROUNDWATER ELEVATION (ft)	WELL DEPTH (ft btoc)	WELL DEPTH (ft bgs)	STATIC WATER LEVEL (ft bgs)	SCREENED INTERVAL (ft bgs)
MW-1	1003.27	1000.5	20.89	982.38	27.9	25.1	18.12	20.1 - 25.1
MW-2	1002.48	999.2	19.76	982.72	27.4	24.1	16.48	19.1 - 24.1
MW-3	1005.07	1001.8	22.31	982.76	30.3	27.0	19.04	22.0 - 27.0
MW-4	1005.00	1002.8	22.80	982.20	30.3	28.1	20.60	23.1 - 28.1
MW-5	1005.76	1003.5	23.20	982.56	25.3	23.0	20.94	18.0 - 23.0
MW-6	1006.15	1003.7	24.00	982.15	32.8	30.4	21.55	25.4 - 30.4
MW-7	1005.74	1002.9	23.45	982.29	30.4	27.6	20.61	22.6 - 27.6

13-Nov-15

LOCATION	TOC ELEVATION (ft)	GROUND ELEVATION (ft)	STATIC WATER LEVEL (ft btoc)	GROUNDWATER ELEVATION (ft)	WELL DEPTH (ft btoc)	WELL DEPTH (ft bgs)	STATIC WATER LEVEL (ft bgs)	SCREENED INTERVAL (ft bgs)
MW-1	1003.27	1000.5	20.99	982.28	27.9	25.1	18.22	20.1 - 25.1
MW-2	1002.48	999.2	19.85	982.63	27.4	24.1	16.57	19.1 - 24.1
MW-3	1005.07	1001.8	22.49	982.58	30.3	27.0	19.22	22.0 - 27.0
MW-4	1005.00	1002.8	22.88	982.12	30.3	28.1	20.68	23.1 - 28.1
MW-5	1005.76	1003.5	23.29	982.47	25.3	23.0	21.03	18.0 - 23.0
MW-6	1006.15	1003.7	24.05	982.10	32.8	30.4	21.60	25.4 - 30.4
MW-7	1005.74	1002.9	23.55	982.19	30.4	27.6	20.71	22.6 - 27.6

27-Jan-16

LOCATION	TOC ELEVATION (ft)	GROUND ELEVATION (ft)	STATIC WATER LEVEL (ft btoc)	GROUNDWATER ELEVATION (ft)	WELL DEPTH (ft btoc)	WELL DEPTH (ft bgs)	STATIC WATER LEVEL (ft bgs)	SCREENED INTERVAL (ft bgs)
MW-1	1003.27	1000.5	21.41	981.86	27.9	25.1	18.64	20.1 - 25.1
MW-2	1002.48	999.2	20.38	982.10	27.4	24.1	17.10	19.1 - 24.1
MW-3	1005.07	1001.8	---	---	30.3	27.0	---	22.0 - 27.0
MW-4	1005.00	1002.8	23.30	981.70	30.3	28.1	21.10	23.1 - 28.1
MW-5	1005.76	1003.5	23.78	981.98	25.3	23.0	21.52	18.0 - 23.0
MW-6	1006.15	1003.7	24.49	981.66	32.8	30.4	22.04	25.4 - 30.4
MW-7	1005.74	1002.9	23.96	981.78	30.4	27.6	21.12	22.6 - 27.6

3-Jun-16

LOCATION	TOC ELEVATION (ft)	GROUND ELEVATION (ft)	STATIC WATER LEVEL (ft btoc)	GROUNDWATER ELEVATION (ft)	WELL DEPTH (ft btoc)	WELL DEPTH (ft bgs)	STATIC WATER LEVEL (ft bgs)	SCREENED INTERVAL (ft bgs)
MW-1	1003.27	1000.5	20.15	983.12	27.9	25.1	17.38	20.1 - 25.1
MW-2	1002.48	999.2	18.48	984.00	27.4	24.1	15.20	19.1 - 24.1
MW-3	1005.07	1001.8	21.27	983.80	30.3	27.0	18.00	22.0 - 27.0
MW-4	1005.00	1002.8	22.23	982.77	30.3	28.1	20.03	23.1 - 28.1
MW-5	1005.76	1003.5	22.57	983.19	25.3	23.0	20.31	18.0 - 23.0
MW-6	1006.15	1003.7	23.42	982.73	32.8	30.4	20.97	25.4 - 30.4
MW-7	1005.74	1002.9	22.76	982.98	30.4	27.6	19.92	22.6 - 27.6

11-Aug-16

LOCATION	TOC ELEVATION (ft)	GROUND ELEVATION (ft)	STATIC WATER LEVEL (ft btoc)	GROUNDWATER ELEVATION (ft)	WELL DEPTH (ft btoc)	WELL DEPTH (ft bgs)	STATIC WATER LEVEL (ft bgs)	SCREENED INTERVAL (ft bgs)
MW-1	1003.27	1000.50	20.91	982.36	27.9	25.1	18.14	20.1 - 25.1
MW-2	1002.48	999.20	19.57	982.91	27.4	24.1	16.29	19.1 - 24.1
MW-3	1005.07	1001.80	22.33	982.74	30.3	27.0	19.06	22.0 - 27.0
MW-4	1005.00	1002.80	22.97	982.03	30.3	28.1	20.77	23.1 - 28.1
MW-5	1005.76	1003.50	23.21	982.55	25.3	23.0	20.95	18.0 - 23.0
MW-6	1006.15	1003.70	24.14	982.01	32.8	30.4	21.69	25.4 - 30.4
MW-6d	1006.27	1003.70	24.27	982.00	47.0	44.4	21.70	39.4 - 44.4
MW-7	1005.74	1002.90	23.50	982.24	30.4	27.6	20.66	22.6 - 27.6
MW-8	1010.78	1008.30	26.97	983.81	32.1	29.6	24.49	24.6 - 29.6
MW-9	1008.17	1005.50	25.94	982.23	31.1	28.4	23.27	23.3 - 28.3
MW-10	1005.97	1002.90	22.37	983.60	27.1	24.0	19.30	19.0 - 24.0
MW-11	1003.67	1000.40	20.67	983.00	27.1	23.8	17.40	17.0 - 22.0
MW-12s	1006.91	1003.90	24.86	982.05	28.5	25.5	21.85	20.5 - 25.5
MW-12d	1006.47	1003.90	24.46	982.01	47.3	44.7	21.89	39.7 - 44.7
MW-13	1004.86	1001.90	21.88	982.98	27.2	24.2	18.92	17.3 - 22.3
MW-15	1002.93	999.60	21.07	981.86	26.7	23.4	17.74	17.0 - 22.0
MW-16	1003.67	1000.50	21.13	982.54	26.7	23.5	17.96	17.1 - 22.1

TABLE 2
SULFOLANE ANALYTICAL SUMMARY & CLEANUP CRITERIA COMPARISON - MONITOR WELLS
Hartland 36 Gas Plant
SE/NE/NW Section 36, T03N-R06E,
Hartland Township, Livingston County, Michigan
ECT Project #13-0685-2000

Sample Location	Screened Interval (ft bgs)	Sulfolane by EPA Method 8270D (µg/L)					
		10/15/2015	11/4-5/2015	11/13/2015	1/27/2016	6/3/2016	8/3/2016 - 8/4/2016[10]
W-Pit	---	**20,000**	---	**14,000**	**---**	---	---
MW-1	20.1-25.1	---	<10	---	<10	<10	---
MW-2	19.1-24.1	---	<10	---	<10	<10	---
MW-3	22.0-27.0	---	<10	---	---	<10	---
MW-4	23.1-28.1	---	<10	---	<10	<10	<10
MW-5	18.0-23.0	---	<10	---	<10	<10	---
MW-6	25.4-30.4	---	<10	---	<10	<10	<10
MW-6D		---	**---**	---	---	**---**	<10
MW-7	22.6-27.6	---	**880**	---	44	**450 (510)[9]**	<10
MW-8	24.57 - 29.57	---	---	---	---	---	<10
MW-9	23.22 - 28.22	---	---	---	---	---	<10
MW-10	18.98 - 23.98	---	---	---	---	---	<10
MW-11	18.84 - 23.84	---	---	---	---	---	<10
MW-12S		---	---	---	---	---	<10
MW-12D		---	---	---	---	---	<10
MW-13		---	---	---	---	---	**6,600**
MW-15	23.35 - 28.35	---	---	---	---	---	<10
MW-16	18.52 - 23.52	---	---	---	---	---	<10
MDEQ-OOGM Cleanup Criteria		**90**					
Collection Method		Grab	LF	Grab	LF	Bailer/PP	LF

Notes

1) ft/bgs - Feet below ground surface.
2) Collection method - Grab, peristaltic pump (PP), low flow (LF), Bailer.
3) µg/L - Micrograms per liter, equivalent to parts per billion (ppb).
4) (---) - Not sampled.
5) nd - Concentration not detected above reporting limit.
6) (###) - Concentration is for duplicate sample.
7) Cleanup criteria for sulfolane established by MDEQ-Office of Oil, Gas, and Minerals (MDEQ-OOGM).
8) Concentrations that are shaded and bold exceed cleanup criteria.
9) Sample also collected and reported "nd" for diisopropanolamine (DIPA).
10) MW-7 analyzed from 8/11/2016 sample collection date.

TABLE 3
SULFOLANE ANALYTICAL SUMMARY & CLEANUP CRITERIA COMPARISON - TEMPORARY MONITOR WELLS
Hartland 36 Gas Plant
SE/NE/NW Section 36, T03N-R06E,
Hartland Township, Livingston County, Michigan
ECT Project #13-0685-2000

Sample Location	Screened Interval (ft bgs)	Sulfolane by EPA Method 8270D (µg/L)		
		10/30/2015	6/2/2016	7/27/2016
TMW-6	35-40	<10	---	---
TMW-6	45-50	<10	---	---
TMW-6	55-60	<10	---	---
TMW-6	65-70	<10	---	---
TMW-01	25-30	---	<11	---
TMW-02	20-25	---	<10	---
TMW-03	18-23	---	<10	---
TMW-04[9]	19-24	---	**2,600**	---
TMW-05	16.5-21.5	---	**4,500**	---
TMW-07[9]	19-24	---	**4,200 (3,900)**	---
TMW-08[9]	19-24	---	**710**	---
TMW-09	18-23	---	**5,900**	---
TMW-010	90-95	---	<10	---
TMW-010	70-75	---	<10	---
TMW-010	45-50	---	<10	---
TMW-011	27-32	---	**4,800**	---
TMW-012	38-43	---	---	**480**
MDEQ-OOGM Cleanup Criteria		**90**		
Collection Method		Grab		

Notes

1) ft/bgs - Feet below ground surface.
2) Collection method - Grab (bailer or peristaltic pump), low flow (LF), Bailer.
3) µg/L - Micrograms per liter, equivalent to parts per billion (ppb).
4) (---) - Not sampled.
5) nd - Concentration not detected above reporting limit.
6) (###) - Concentration is for duplicate sample.
7) Cleanup criteria for sulfolane established by MDEQ-Office of Oil, Gas, and Minerals (MDEQ-OOGM).
8) Concentrations that are shaded and bold exceed cleanup criteria.
9) Sample also collected and reported "nd" for diisopropanolamine (DIPA).

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BORING LOG DIAGRAM: MW-6D

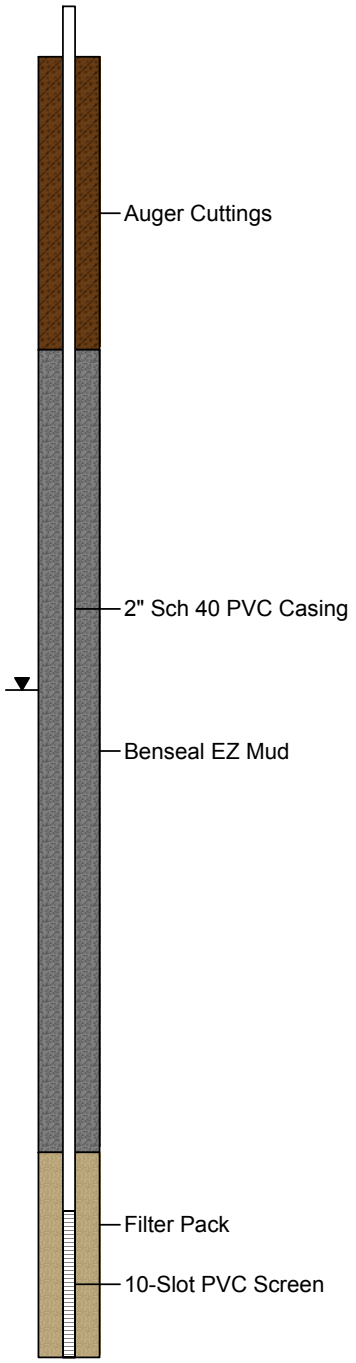
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-1800

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	SW-GW					SAND & GRAVEL (transcribed from MW-6)
	CL					CLAY (transcribed from MW-6)
5	SM					silty SAND (transcribed from MW-6)
	GW					sandy GRAVEL (transcribed from MW-6)
10						
	SC					clayey SAND (transcribed from MW-6)
15						
20						
25						
	GM					silty GRAVEL (transcribed from MW-6)
30						
	SP-GP					coarse SAND and fine GRAVEL (transcribed from MW-6)
35						
	SP-GP					coarse SAND and fine GRAVEL (transcribed from MW-6)
40						
	GW					medium to coarse GRAVEL (transcribed from MW-6)
45						End of Boring @ 45' bgs



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BORING LOG DIAGRAM: MW-9

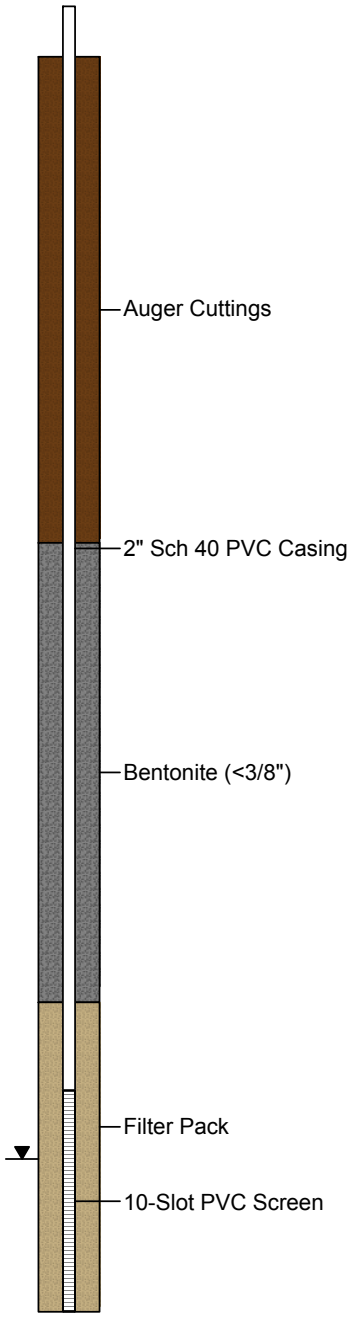
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	SP					Brown, fine to medium, fine gravelly SAND
25	SM					Brown silty SAND
30						End of Boring @ 30' bgs



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BORING LOG DIAGRAM: MW-10

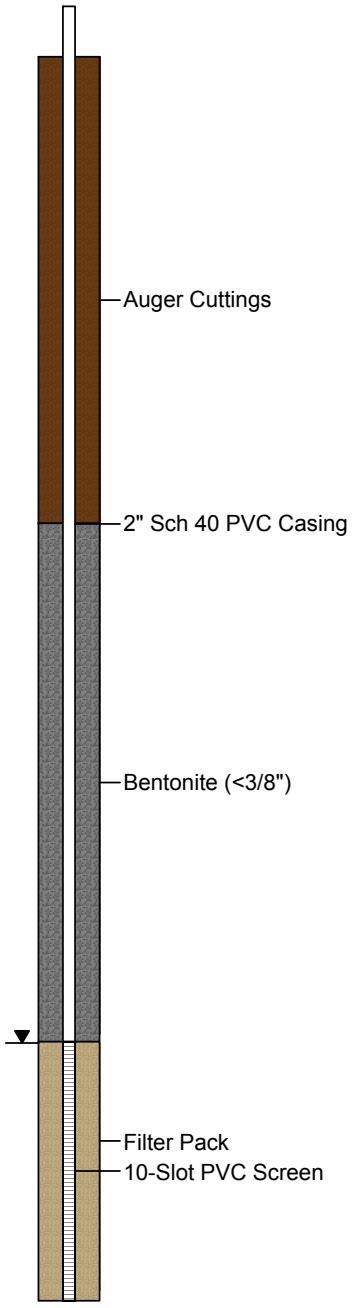
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	SP-GW					Brown, fine to medium SAND with fine to coarse gravel
20	ML					SILT/CLAY
25						End of Boring @ 25' bgs



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BORING LOG DIAGRAM: MW-11

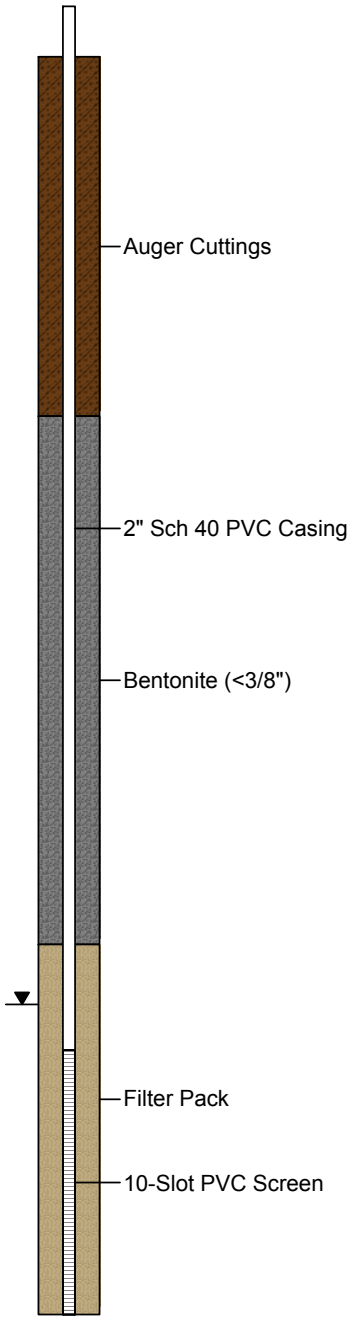
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	GP					Brown, sandy GRAVEL
5	SC					Brown, fine clayey SAND
10						
15	SP					Brown, fine to medium, fine gravelly SAND
20						
25						End of Boring @ 25' bgs



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BORING LOG DIAGRAM: MW-12S

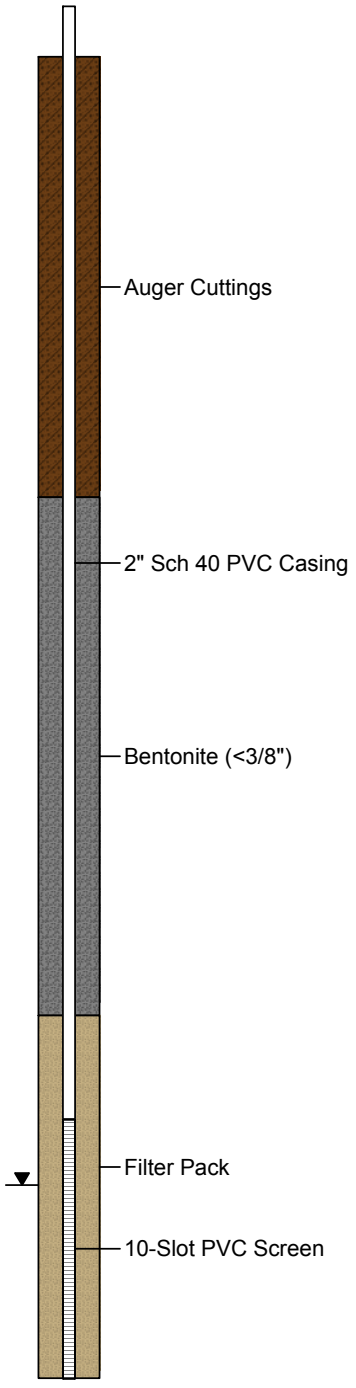
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	GP					Brown, fine to medium SAND with fine to coarse GRAVEL
5						
10						
15						
20						
25						End of Boring @ 25.5' bgs



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BORING LOG DIAGRAM: MW-12D

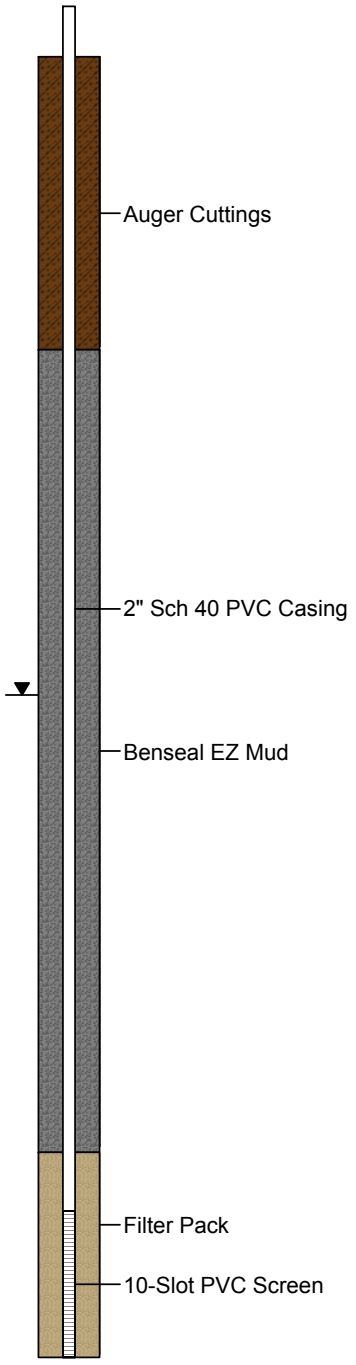
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	GP					Brown, fine to medium SAND with fine to coarse GRAVEL
45						End of Boring @ 45' bgs



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BORING LOG DIAGRAM: MW-13

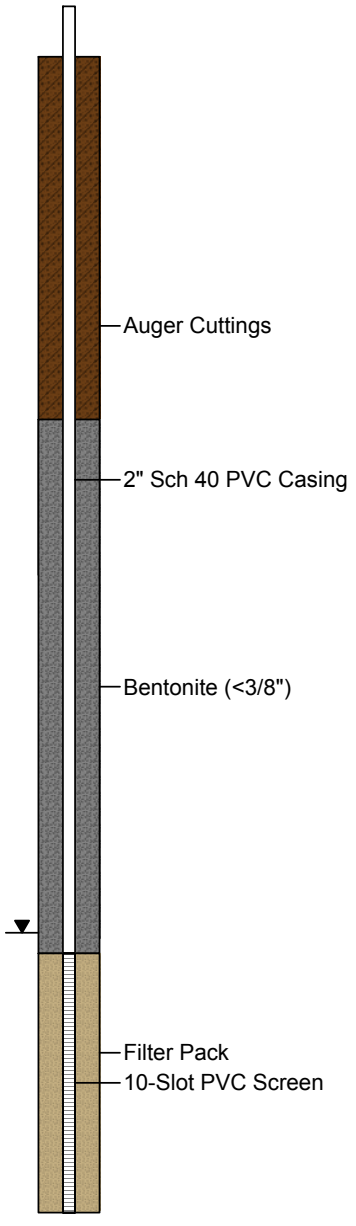
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/26/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	GP					GRAVEL
	CL					Gray CLAY
5						
	CL					Reddish, sandy CLAY
10						
	SM					Brown, silty SAND
15						
	SM					Fine to medium, silty SAND
20						
25						End of Boring @ 25' bgs



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BORING LOG DIAGRAM: MW-15

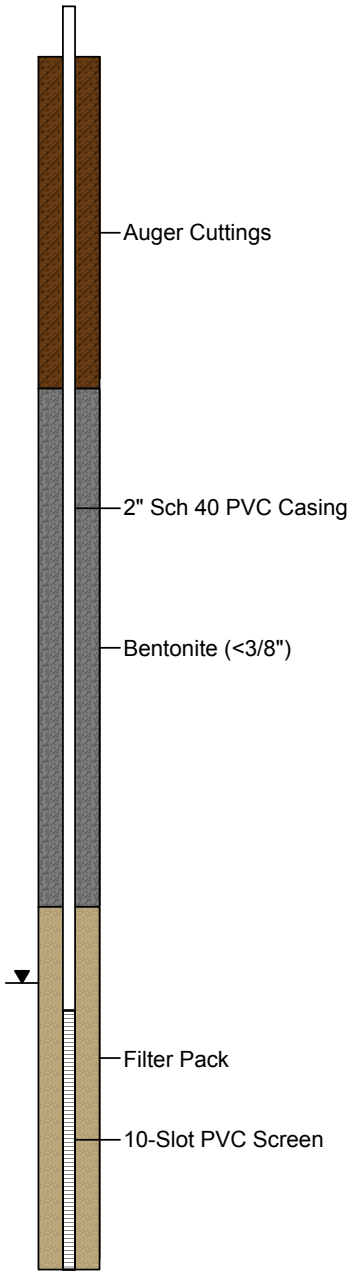
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/27/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	SP					Brown, fine to medium SAND, trace fine GRAVEL
25	ML					SILT/CLAY
						End of Boring @ 25' bgs



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BORING LOG DIAGRAM: MW-16

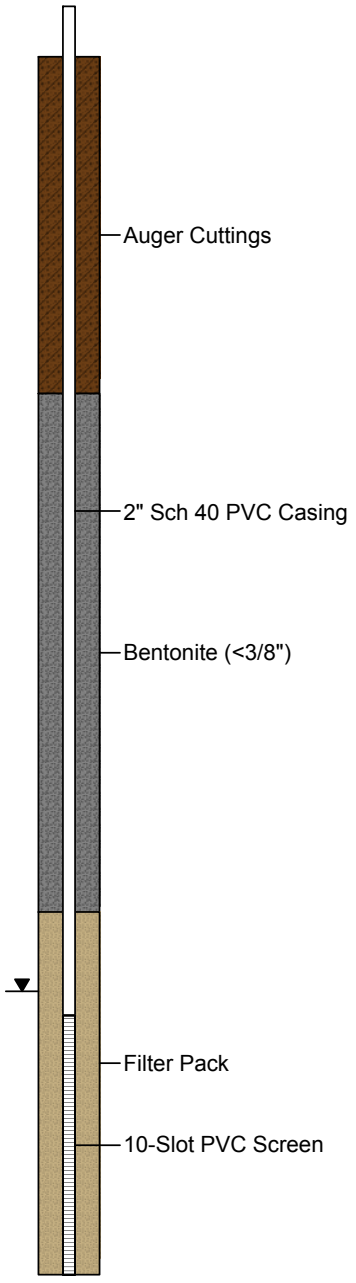
Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

Project #13-0685-2000

Date Completed : 7/27/2016
Hole Diameter : 8 inches
Drilling Company : Shepler Well Drilling
Drilling Method : 4.25" ID HSAs
Drill Rig : Truck-mounted Mobile Drill B-57

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0	SP					Brown, fine to medium SAND, trace fine GRAVEL
5						
10						
15						
20						
25	ML					SILT/CLAY
						End of Boring @ 25' bgs



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BORING LOG DIAGRAM: TMW-012

Merit Energy Company
1510 Thomas Road
Kalkaska, Michigan 49646

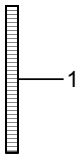
Project #13-0685-2000

Date Completed : 6/2/2016
Hole Diameter : 2.5"
Drilling Company : Shepler Well Drilling
Drilling Method : GeoProbe
Drill Rig : 7822DT

Boring Location : Former Hartland 36 Gas Plant
: SE/NE/NW Section 36
: T03N-R06E
: Hartland Twp, Livingston Co, MI

Well: TMW-012
TOC Elevation:

Depth in Feet	USCS	GRAPHIC	PID (ppm)	Sample ID	Recovery (ft)	DESCRIPTION
0						0'-15' - No logging 15'-25' - From TMW-08
15	SP					Brown, fine to medium SAND, some GRAVEL
20	SP					Brown, fine to medium SAND, some GRAVEL, wet
	SM					Gray, fine grained SAND and SILT, wet
25	CL					Gray sandy CLAY, medium stiff
	SW-GW					Brown, fine to coarse SAND and fine to coarse GRAVEL
30						(with silt at 33')
35	SM					Light gray-gray, fine silty SAND with some layers of fine gravel
40	SW-SM/SC					Gray, silty/clayey fine to coarse SAND
	SW					Gray fine to medium, fine gravelly SAND
	CL					Gray CLAY, medium stiff-stiff
	SW					Gray fine to medium SAND, with some fine gravel
45						End of Boring @ 45' bgs



10-Slot PVC Screen

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-6 Slug In
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.60	Feet
top of screen (TOS)	27.8	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

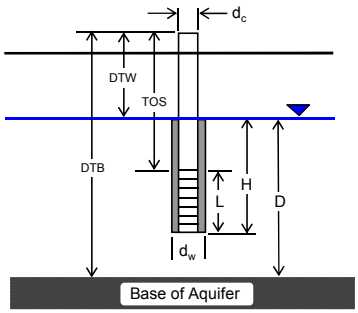
L_{wetted}	5	Feet
D =	81.4	Feet
H =	11.2	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	1.63	Feet
$y_{0\text{-SLUG}}$ =	1.49	Feet

From look-up table using L/r_w

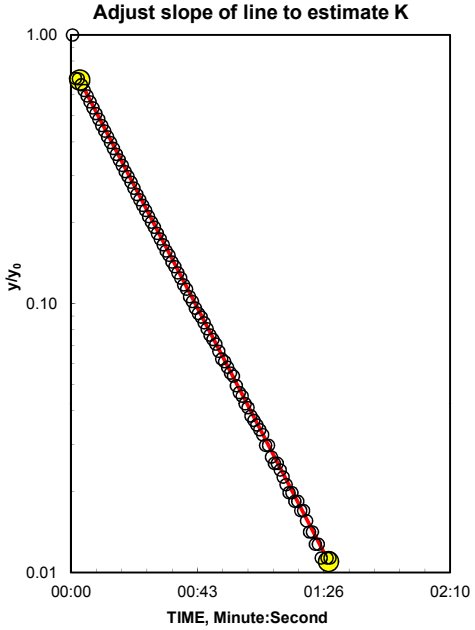
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.780	
Re =	1.98	Feet
Slope =	0.021072	$\log_{10}$/sec
$t_{90\%}$ recovery =	47	sec

Input is consistent.

K = 5.2 Feet/Day



Adjust slope of line to estimate K



NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	11:49:02.0	19.97
2	11:49:04.0	20.48
3	11:49:06.0	20.59
4	11:49:08.0	20.68
5	11:49:10.0	20.77
6	11:49:12.0	20.85
7	11:49:14.0	20.92
8	11:49:16.0	20.98
9	11:49:18.0	21.04
10	11:49:20.0	21.09
11	11:49:22.0	21.14
12	11:49:24.0	21.18
13	11:49:26.0	21.22
14	11:49:28.0	21.26
15	11:49:30.0	21.29
16	11:49:32.0	21.32
17	11:49:34.0	21.34
18	11:49:36.0	21.37
19	11:49:38.0	21.39
20	11:49:40.0	21.41
21	11:49:42.0	21.43
22	11:49:44.0	21.44
23	11:49:46.0	21.45
24	11:49:48.0	21.47
25	11:49:50.0	21.48
26	11:49:52.0	21.49
27	11:49:54.0	21.50
28	11:49:56.0	21.51
29	11:49:58.0	21.52
30	11:50:00.0	21.53
31	11:50:02.0	21.53
32	11:50:04.0	21.54
33	11:50:06.0	21.54
34	11:50:08.0	21.55
35	11:50:10.0	21.56
36	11:50:12.0	21.56
37	11:50:14.0	21.56
38	11:50:16.0	21.57
39	11:50:18.0	21.57
40	11:50:20.0	21.57
41	11:50:22.0	21.57
42	11:50:24.0	21.58
43	11:50:26.0	21.58
44	11:50:28.0	21.58
45	11:50:30.0	21.58

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-6 Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.60	Feet
top of screen (TOS)	27.8	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

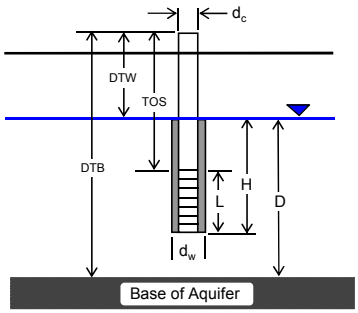
L_{wetted}	5	Feet
D =	81.4	Feet
H =	11.2	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	1.35	Feet
$y_{0\text{-SLUG}}$ =	1.49	Feet

From look-up table using L/r_w

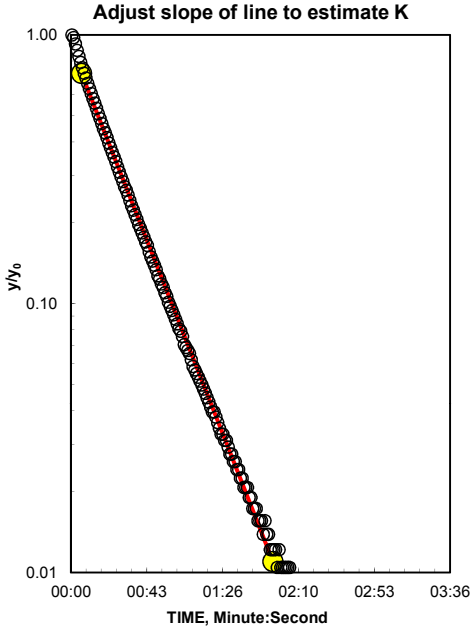
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.780	
Re =	1.98	Feet
Slope =	0.01666	$\log_{10}$/sec
$t_{90\%}$ recovery =	60	sec

Input is consistent.

K = 4.1 Feet/Day



Adjust slope of line to estimate K



NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	11:55:15.0	22.95
2	11:55:18.0	22.78
3	11:55:21.0	22.62
4	11:55:24.0	22.49
5	11:55:27.0	22.38
6	11:55:30.0	22.29
7	11:55:33.0	22.20
8	11:55:36.0	22.13
9	11:55:39.0	22.07
10	11:55:42.0	22.02
11	11:55:45.0	21.97
12	11:55:48.0	21.93
13	11:55:51.0	21.89
14	11:55:54.0	21.86
15	11:55:57.0	21.83
16	11:56:00.0	21.80
17	11:56:03.0	21.78
18	11:56:06.0	21.76
19	11:56:09.0	21.74
20	11:56:12.0	21.73
21	11:56:15.0	21.71
22	11:56:18.0	21.70
23	11:56:21.0	21.69
24	11:56:24.0	21.68
25	11:56:27.0	21.67
26	11:56:30.0	21.66
27	11:56:33.0	21.66
28	11:56:36.0	21.65
29	11:56:39.0	21.65
30	11:56:42.0	21.64
31	11:56:45.0	21.64
32	11:56:48.0	21.63
33	11:56:51.0	21.63
34	11:56:54.0	21.63
35	11:56:57.0	21.63
36	11:57:00.0	21.62
37	11:57:03.0	21.62
38	11:57:06.0	21.62
39	11:57:09.0	21.62
40	11:57:12.0	21.61
41	11:57:15.0	21.61
42	11:57:18.0	21.61
43	11:57:21.0	21.61
44	11:57:24.0	21.61
45	11:57:27.0	21.61

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-6D Slug In
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.64	Feet
top of screen (TOS)	42.0	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

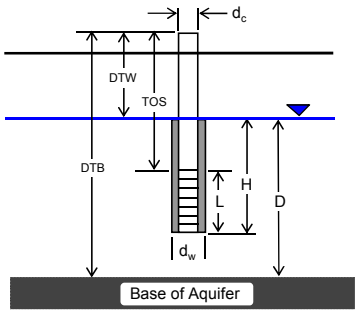
L_{wetted}	5	Feet
D =	81.36	Feet
H =	25.36	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.25	Feet
$y_{0\text{-SLUG}}$ =	0.25	Feet

From look-up table using L/r_w

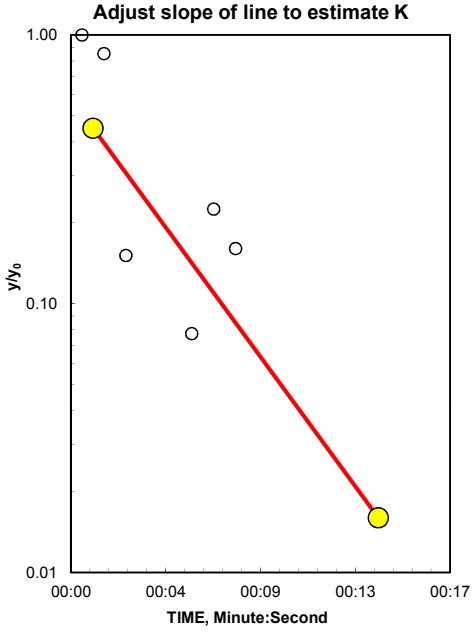
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.008	
Re =	2.48	Feet
Slope =	0.111469	$\log_{10}$/sec
$t_{90\%}$ recovery =	9	sec

Input is consistent.

K = 31 Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	11:10:54.0	21.39
2	11:10:55.0	21.43
3	11:10:56.0	21.60
4	11:10:57.0	21.71
5	11:10:58.0	21.69
6	11:10:59.0	21.62
7	11:11:00.0	21.58
8	11:11:01.0	21.60
9	11:11:02.0	21.64
10	11:11:03.0	21.66
11	11:11:04.0	21.64

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-6D Slug In 2
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.64	Feet
top of screen (TOS)	42.0	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

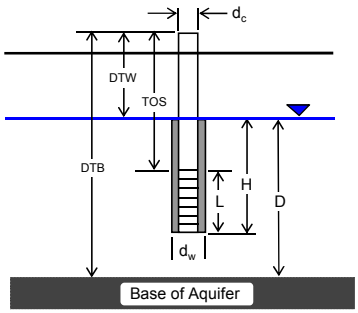
L_{wetted}	5	Feet
D =	81.36	Feet
H =	25.36	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.26	Feet
$y_{0\text{-SLUG}}$ =	0.25	Feet

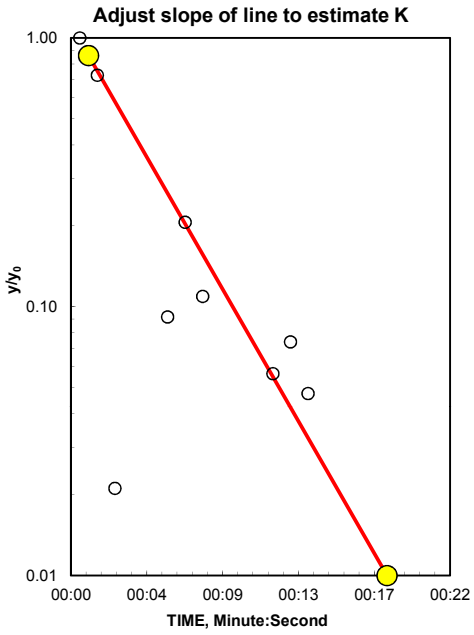
From look-up table using L/r_w

Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.008	
Re =	2.48	Feet
Slope =	0.113794	$\log_{10}$/sec
$t_{90\%}$ recovery =	9	sec

Input is consistent.

K =	32	Feet/Day





REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	11:27:37.0	21.38
2	11:27:38.0	21.45
3	11:27:39.0	21.63
4	11:27:40.0	21.72
5	11:27:41.0	21.69
6	11:27:42.0	21.62
7	11:27:43.0	21.59
8	11:27:44.0	21.61
9	11:27:45.0	21.65
10	11:27:46.0	21.66
11	11:27:47.0	21.64
12	11:27:48.0	21.63
13	11:27:49.0	21.62
14	11:27:50.0	21.63
15	11:27:51.0	21.64
16	11:27:52.0	21.64

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-6D Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.64	Feet
top of screen (TOS)	42.0	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

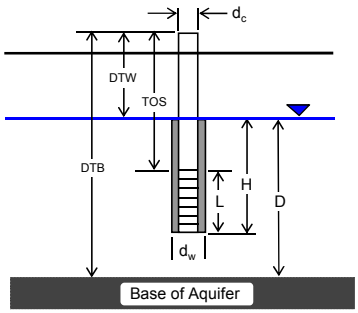
L_{wetted}	5	Feet
D =	81.36	Feet
H =	25.36	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.16	Feet
$y_{0\text{-SLUG}}$ =	0.16	Feet

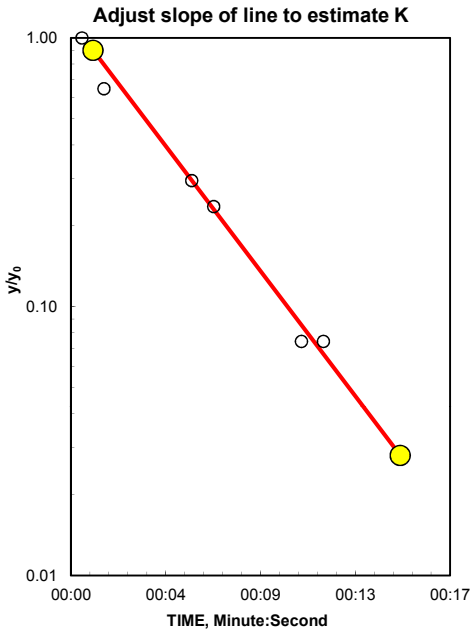
From look-up table using L/r_w

Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.008	
Re =	2.48	Feet
Slope =	0.107649	$\log_{10}$/sec
$t_{90\%}$ recovery =	9	sec

Input is consistent.

K =	30	Feet/Day





REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	11:18:15.0	21.80
2	11:18:16.0	21.74
3	11:18:17.0	21.60
4	11:18:18.0	21.55
5	11:18:19.0	21.62
6	11:18:20.0	21.69
7	11:18:21.0	21.68
8	11:18:22.0	21.62
9	11:18:23.0	21.61
10	11:18:24.0	21.63
11	11:18:25.0	21.65
12	11:18:26.0	21.65
13	11:18:27.0	21.64

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-6D Slug Out 2
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.64	Feet
top of screen (TOS)	42.0	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

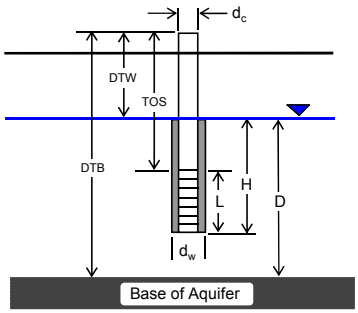
L_{wetted}	5	Feet
D =	81.36	Feet
H =	25.36	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.22	Feet
$y_{0\text{-SLUG}}$ =	0.26	Feet

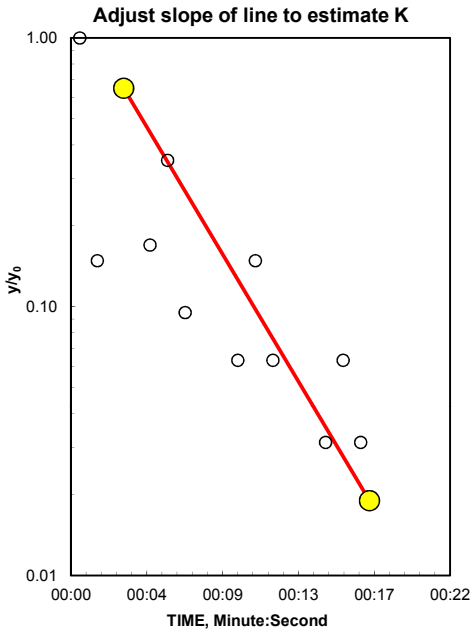
From look-up table using L/r_w

Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.008	
Re =	2.48	Feet
Slope =	0.109583	$\log_{10}$/sec
$t_{90\%}$ recovery =	9	sec

Input is consistent.

K = 30 Feet/Day





REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	11:31:53.0	21.86
2	11:31:54.0	21.67
3	11:31:55.0	21.52
4	11:31:56.0	21.56
5	11:31:57.0	21.68
6	11:31:58.0	21.72
7	11:31:59.0	21.66
8	11:32:00.0	21.61
9	11:32:01.0	21.61
10	11:32:02.0	21.65
11	11:32:03.0	21.67
12	11:32:04.0	21.65
13	11:32:05.0	21.63
14	11:32:06.0	21.63
15	11:32:07.0	21.65
16	11:32:08.0	21.65
17	11:32:09.0	21.65
18	11:32:10.0	21.64

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-7 Slug In
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	3.6	Feet

Depths to:

water level (DTW)	20.86	Feet
top of screen (TOS)	25.4	Feet
Base of Aquifer (DTB)	29	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

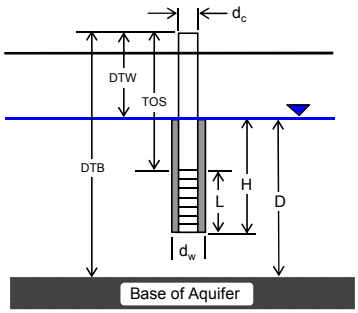
L_{wetted}	3.6	Feet
D =	8.14	Feet
H =	8.14	Feet
L/r_w =	10.80	
$y_{0\text{-DISPLACEMENT}}$ =	1.27	Feet
$y_{0\text{-SLUG}}$ =	1.49	Feet

From look-up table using L/r_w

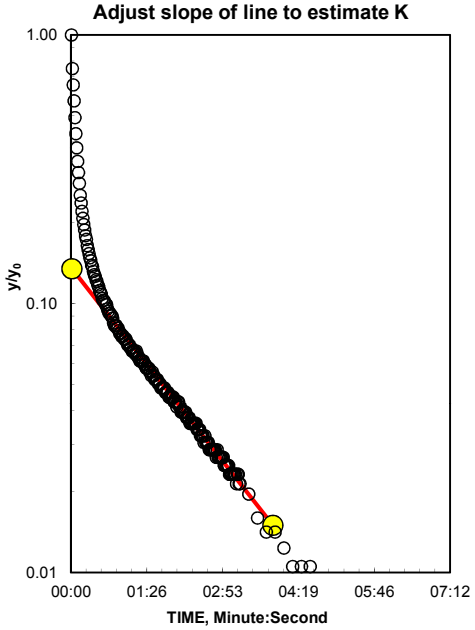
Fully penetrate C =	1.267	
ln(Re/rw) =	2.166	
Re =	2.91	Feet
Slope =	0.004167	$\log_{10}$/sec
$t_{90\%}$ recovery =	240	sec

Input is consistent.

K = 1.7 Feet/Day



Adjust slope of line to estimate K



K= 1.7 is less than likely minimum of 3 for Fine Sand

NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	13:43:15.0	19.59
2	13:43:19.0	20.23
3	13:43:23.0	20.47
4	13:43:27.0	20.58
5	13:43:31.0	20.63
6	13:43:35.0	20.66
7	13:43:39.0	20.69
8	13:43:43.0	20.70
9	13:43:47.0	20.72
10	13:43:51.0	20.73
11	13:43:55.0	20.73
12	13:43:59.0	20.74
13	13:44:03.0	20.75
14	13:44:07.0	20.76
15	13:44:11.0	20.76
16	13:44:15.0	20.77
17	13:44:19.0	20.77
18	13:44:23.0	20.77
19	13:44:27.0	20.78
20	13:44:31.0	20.78
21	13:44:35.0	20.78
22	13:44:39.0	20.78
23	13:44:43.0	20.79
24	13:44:47.0	20.79
25	13:44:51.0	20.79
26	13:44:55.0	20.80
27	13:44:59.0	20.80
28	13:45:03.0	20.80
29	13:45:07.0	20.80
30	13:45:11.0	20.80
31	13:45:15.0	20.81
32	13:45:19.0	20.81
33	13:45:23.0	20.81
34	13:45:27.0	20.81
35	13:45:31.0	20.81
36	13:45:35.0	20.81
37	13:45:39.0	20.82
38	13:45:43.0	20.82
39	13:45:47.0	20.82
40	13:45:51.0	20.82
41	13:45:55.0	20.82
42	13:45:59.0	20.82
43	13:46:03.0	20.83
44	13:46:07.0	20.83
45	13:46:11.0	20.83

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-7 Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	3.6	Feet

Depths to:

water level (DTW)	20.86	Feet
top of screen (TOS)	25.4	Feet
Base of Aquifer (DTB)	29	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

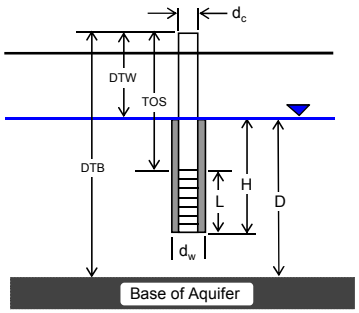
L_{wetted}	3.6	Feet
D =	8.14	Feet
H =	8.14	Feet
L/r_w =	10.80	
$y_{0\text{-DISPLACEMENT}}$ =	1.11	Feet
$y_{0\text{-SLUG}}$ =	1.13	Feet

From look-up table using L/r_w

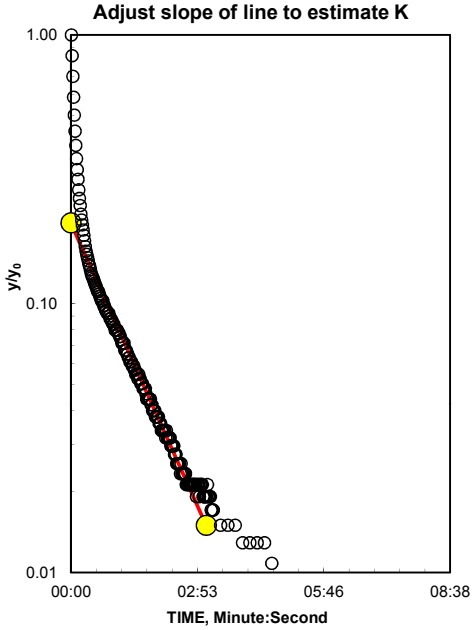
Fully penetrate C =	1.267	
ln(Re/rw) =	2.166	
Re =	2.91	Feet
Slope =	0.006081	$\log_{10}$/sec
$t_{90\%}$ recovery =	164	sec

Input is consistent.

K = 2.5 Feet/Day



Adjust slope of line to estimate K



K= 2.5 is less than likely minimum of 3 for Fine Sand

NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	13:56:04.0	21.97
2	13:56:08.0	21.42
3	13:56:12.0	21.21
4	13:56:16.0	21.12
5	13:56:20.0	21.07
6	13:56:24.0	21.03
7	13:56:28.0	21.01
8	13:56:32.0	21.00
9	13:56:36.0	20.99
10	13:56:40.0	20.98
11	13:56:44.0	20.98
12	13:56:48.0	20.97
13	13:56:52.0	20.96
14	13:56:56.0	20.96
15	13:57:00.0	20.96
16	13:57:04.0	20.95
17	13:57:08.0	20.95
18	13:57:12.0	20.94
19	13:57:16.0	20.94
20	13:57:20.0	20.93
21	13:57:24.0	20.93
22	13:57:28.0	20.93
23	13:57:32.0	20.92
24	13:57:36.0	20.92
25	13:57:40.0	20.92
26	13:57:44.0	20.91
27	13:57:48.0	20.91
28	13:57:52.0	20.91
29	13:57:56.0	20.90
30	13:58:00.0	20.90
31	13:58:04.0	20.90
32	13:58:08.0	20.90
33	13:58:12.0	20.90
34	13:58:16.0	20.90
35	13:58:20.0	20.89
36	13:58:24.0	20.89
37	13:58:28.0	20.89
38	13:58:32.0	20.89
39	13:58:36.0	20.89
40	13:58:40.0	20.89
41	13:58:44.0	20.88
42	13:58:48.0	20.88
43	13:58:52.0	20.88
44	13:58:56.0	20.88
45	13:59:00.0	20.88

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-11 Slug In
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	17.28	Feet
top of screen (TOS)	22.1	Feet
Base of Aquifer (DTB)	31	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Medium Sand

COMPUTED

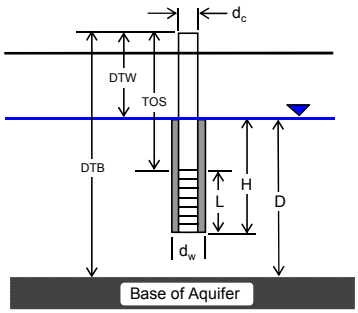
L_{wetted}	5	Feet
D =	13.72	Feet
H =	9.82	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.96	Feet
$y_{0\text{-SLUG}}$ =	0.97	Feet

From look-up table using L/r_w

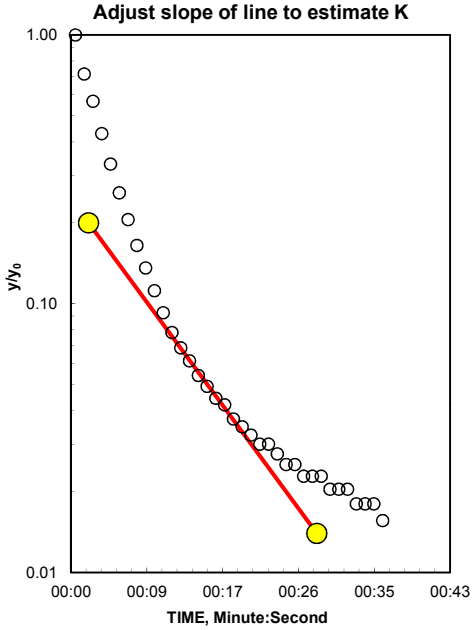
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.946	
Re =	2.33	Feet
Slope =	0.044419	$\log_{10}$/sec
$t_{90\%}$ recovery =	23	sec

Input is consistent.

K =	12	Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	13:12:28.0	16.32
2	13:12:29.0	16.59
3	13:12:30.0	16.74
4	13:12:31.0	16.87
5	13:12:32.0	16.96
6	13:12:33.0	17.03
7	13:12:34.0	17.08
8	13:12:35.0	17.12
9	13:12:36.0	17.15
10	13:12:37.0	17.17
11	13:12:38.0	17.19
12	13:12:39.0	17.21
13	13:12:40.0	17.21
14	13:12:41.0	17.22
15	13:12:42.0	17.23
16	13:12:43.0	17.23
17	13:12:44.0	17.24
18	13:12:45.0	17.24
19	13:12:46.0	17.24
20	13:12:47.0	17.25
21	13:12:48.0	17.25
22	13:12:49.0	17.25
23	13:12:50.0	17.25
24	13:12:51.0	17.25
25	13:12:52.0	17.26
26	13:12:53.0	17.26
27	13:12:54.0	17.26
28	13:12:55.0	17.26
29	13:12:56.0	17.26
30	13:12:57.0	17.26
31	13:12:58.0	17.26
32	13:12:59.0	17.26
33	13:13:00.0	17.26
34	13:13:01.0	17.26
35	13:13:02.0	17.26
36	13:13:03.0	17.27

K= 12 is less than likely minimum of 20 for Medium Sand

NOTES:

ECT Environmental Consulting & Technology, Inc.

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-11 Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	17.28	Feet
top of screen (TOS)	22.1	Feet
Base of Aquifer (DTB)	31	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Medium Sand

COMPUTED

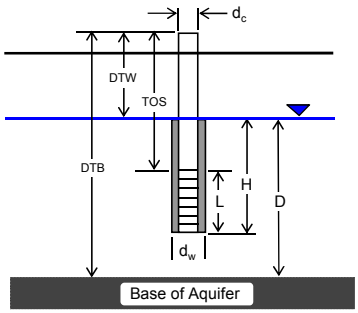
L_{wetted}	5	Feet
D =	13.72	Feet
H =	9.82	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.98	Feet
$y_{0\text{-SLUG}}$ =	0.99	Feet

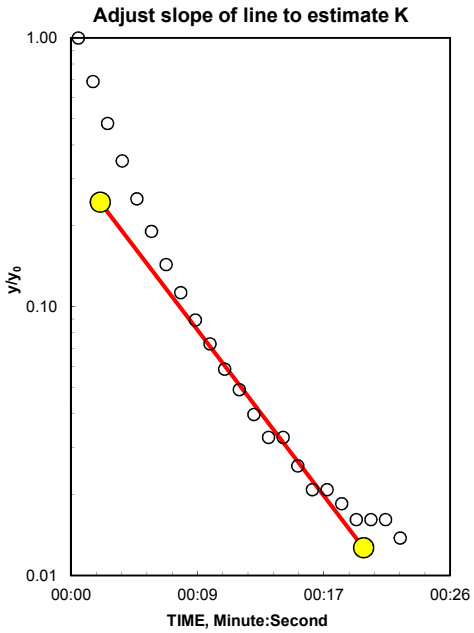
From look-up table using L/r_w

Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.946	
Re =	2.33	Feet
Slope =	0.071409	$\log_{10}$/sec
$t_{90\%}$ recovery =	14	sec

Input is consistent.

K = 19 Feet/Day





REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	13:19:53.0	18.26
2	13:19:54.0	17.95
3	13:19:55.0	17.75
4	13:19:56.0	17.62
5	13:19:57.0	17.53
6	13:19:58.0	17.47
7	13:19:59.0	17.42
8	13:20:00.0	17.39
9	13:20:01.0	17.37
10	13:20:02.0	17.35
11	13:20:03.0	17.34
12	13:20:04.0	17.33
13	13:20:05.0	17.32
14	13:20:06.0	17.31
15	13:20:07.0	17.31
16	13:20:08.0	17.31
17	13:20:09.0	17.30
18	13:20:10.0	17.30
19	13:20:11.0	17.30
20	13:20:12.0	17.30
21	13:20:13.0	17.30
22	13:20:14.0	17.30
23	13:20:15.0	17.29

K= 19 is less than likely minimum of 20 for Medium Sand

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-12S Slug In 2
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.71	Feet
top of screen (TOS)	23.5	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Medium Sand

COMPUTED

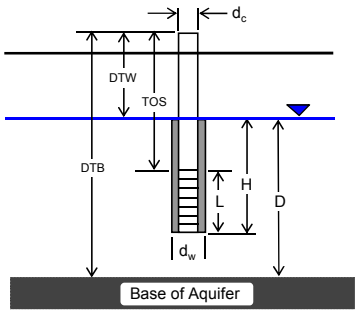
L_{wetted}	5	Feet
D =	81.29	Feet
H =	6.79	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.41	Feet
$y_{0\text{-SLUG}}$ =	0.41	Feet

From look-up table using L/r_w

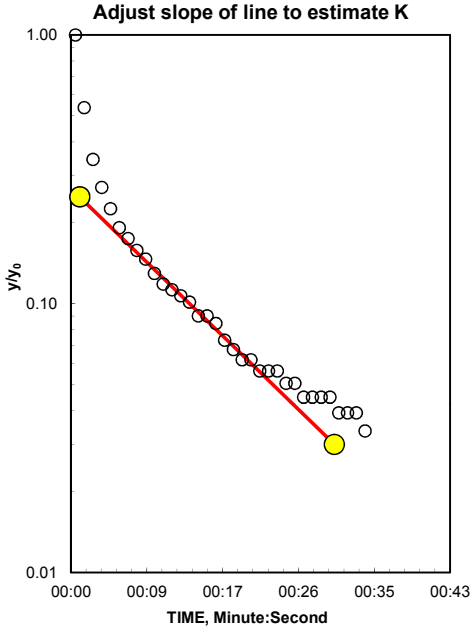
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.626	
Re =	1.69	Feet
Slope =	0.031752	$\log_{10}$/sec
$t_{90\%}$ recovery =	31	sec

Input is consistent.

K = 7.1 Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	10:47:05.0	21.30
2	10:47:06.0	21.49
3	10:47:07.0	21.57
4	10:47:08.0	21.60
5	10:47:09.0	21.62
6	10:47:10.0	21.63
7	10:47:11.0	21.64
8	10:47:12.0	21.65
9	10:47:13.0	21.65
10	10:47:14.0	21.66
11	10:47:15.0	21.66
12	10:47:16.0	21.66
13	10:47:17.0	21.67
14	10:47:18.0	21.67
15	10:47:19.0	21.67
16	10:47:20.0	21.67
17	10:47:21.0	21.68
18	10:47:22.0	21.68
19	10:47:23.0	21.68
20	10:47:24.0	21.68
21	10:47:25.0	21.68
22	10:47:26.0	21.69
23	10:47:27.0	21.69
24	10:47:28.0	21.69
25	10:47:29.0	21.69
26	10:47:30.0	21.69
27	10:47:31.0	21.69
28	10:47:32.0	21.69
29	10:47:33.0	21.69
30	10:47:34.0	21.69
31	10:47:35.0	21.69
32	10:47:36.0	21.69
33	10:47:37.0	21.69
34	10:47:38.0	21.70

K= 7.1 is less than likely minimum of 20 for Medium Sand

NOTES:

ECT Environmental Consulting & Technology, Inc.

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-12S Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.71	Feet
top of screen (TOS)	23.5	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Medium Sand

COMPUTED

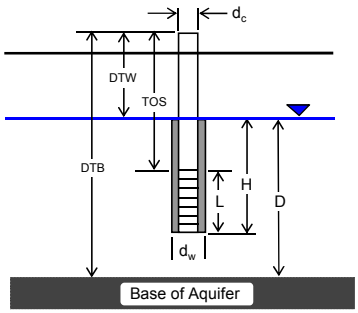
L_{wetted}	5	Feet
D =	81.29	Feet
H =	6.79	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.45	Feet
$y_{0\text{-SLUG}}$ =	0.45	Feet

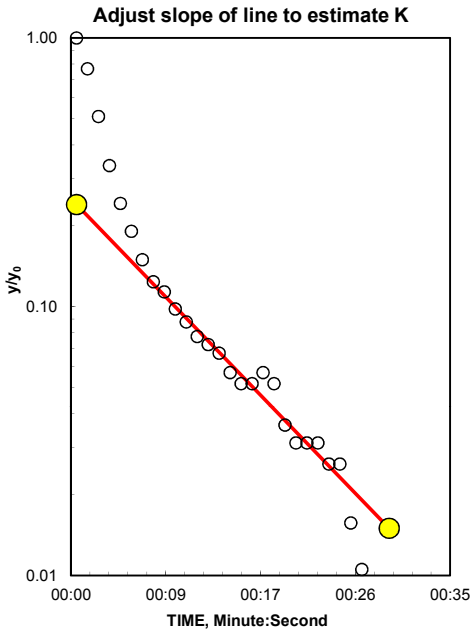
From look-up table using L/r_w

Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.626	
Re =	1.69	Feet
Slope =	0.04225	$\log_{10}$/sec
$t_{90\%}$ recovery =	24	sec

Input is consistent.

K =	9.5	Feet/Day





REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	10:54:29.0	22.16
2	10:54:30.0	22.05
3	10:54:31.0	21.94
4	10:54:32.0	21.86
5	10:54:33.0	21.82
6	10:54:34.0	21.80
7	10:54:35.0	21.78
8	10:54:36.0	21.77
9	10:54:37.0	21.76
10	10:54:38.0	21.75
11	10:54:39.0	21.75
12	10:54:40.0	21.74
13	10:54:41.0	21.74
14	10:54:42.0	21.74
15	10:54:43.0	21.74
16	10:54:44.0	21.73
17	10:54:45.0	21.73
18	10:54:46.0	21.74
19	10:54:47.0	21.73
20	10:54:48.0	21.73
21	10:54:49.0	21.72
22	10:54:50.0	21.72
23	10:54:51.0	21.72
24	10:54:52.0	21.72
25	10:54:53.0	21.72
26	10:54:54.0	21.72
27	10:54:55.0	21.71

K= 9.5 is less than likely minimum of 20 for Medium Sand

NOTES:

ECT Environmental Consulting & Technology, Inc.

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-12D Slug In 2
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.81	Feet
top of screen (TOS)	42.3	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

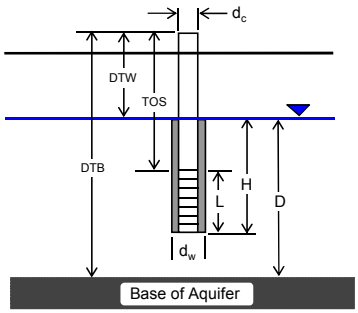
L_{wetted}	5	Feet
D =	81.19	Feet
H =	25.49	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.68	Feet
$y_{0\text{-SLUG}}$ =	0.69	Feet

From look-up table using L/r_w

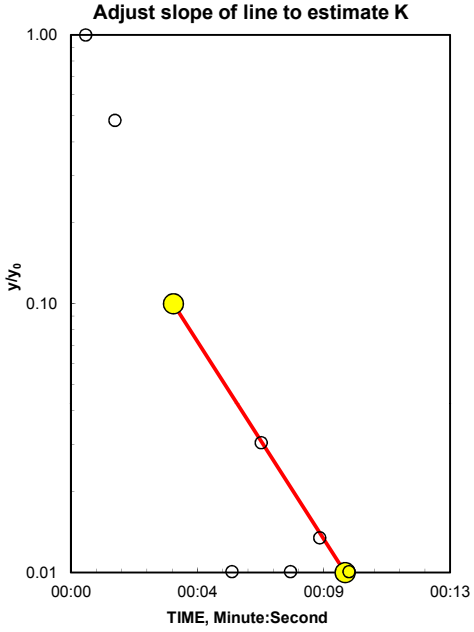
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.010	
Re =	2.49	Feet
Slope =	0.170358	$\log_{10}$/sec
$t_{90\%}$ recovery =	6	sec

Input is consistent.

K = 47 Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	9:53:30.0	21.13
2	9:53:31.0	21.48
3	9:53:32.0	21.82
4	9:53:33.0	21.88
5	9:53:34.0	21.84
6	9:53:35.0	21.80
7	9:53:36.0	21.79
8	9:53:37.0	21.80
9	9:53:38.0	21.80
10	9:53:39.0	21.80
11	9:53:40.0	21.81

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-12D Slug In 3
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.81	Feet
top of screen (TOS)	42.3	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

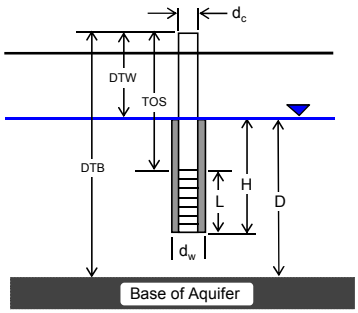
L_{wetted}	5	Feet
D =	81.19	Feet
H =	25.49	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.68	Feet
$y_{0\text{-SLUG}}$ =	0.69	Feet

From look-up table using L/r_w

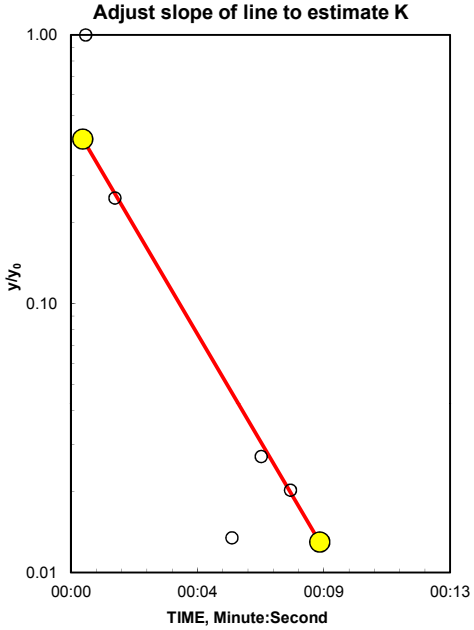
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.010	
Re =	2.49	Feet
Slope =	0.185042	$\log_{10}$/sec
$t_{90\%}$ recovery =	5	sec

Input is consistent.

K = 51 Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	10:06:34.0	21.13
2	10:06:35.0	21.64
3	10:06:36.0	21.86
4	10:06:37.0	21.87
5	10:06:38.0	21.83
6	10:06:39.0	21.80
7	10:06:40.0	21.79
8	10:06:41.0	21.80
9	10:06:42.0	21.81

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-12D Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.81	Feet
top of screen (TOS)	42.3	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

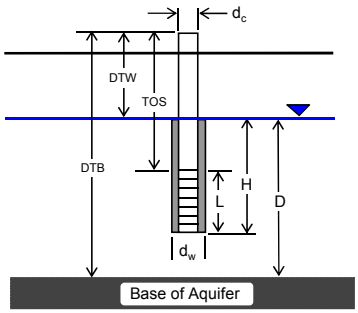
L_{wetted}	5	Feet
D =	81.19	Feet
H =	25.49	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.66	Feet
$y_{0\text{-SLUG}}$ =	0.68	Feet

From look-up table using L/r_w

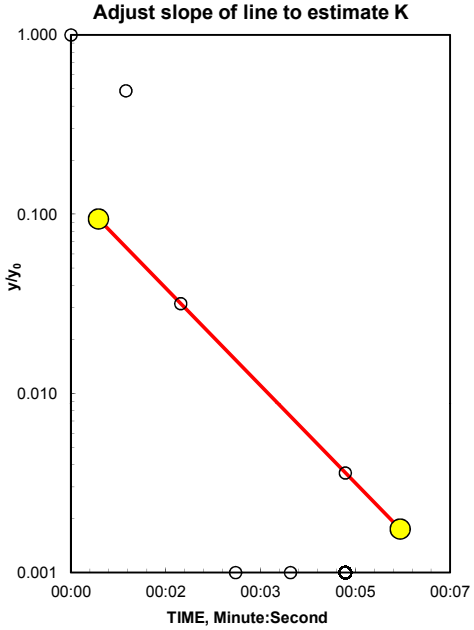
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.010	
Re =	2.49	Feet
Slope =	0.314562	$\log_{10}$/sec
$t_{90\%}$ recovery =	3	sec

Input is consistent.

K = 87 Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	9:31:10.0	22.47
2	9:31:11.0	22.13
3	9:31:12.0	21.83
4	9:31:13.0	21.75
5	9:31:14.0	21.77
6	9:31:15.0	21.81

NOTES:

ECT Environmental Consulting & Technology, Inc.

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-12D Slug Out 3
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	21.81	Feet
top of screen (TOS)	42.3	Feet
Base of Aquifer (DTB)	103	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Sand and Gravel Mixes

COMPUTED

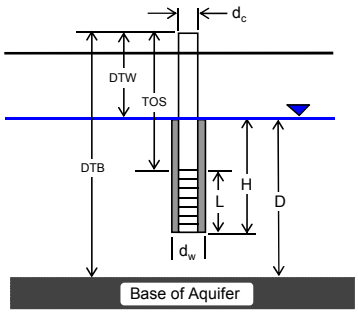
L_{wetted}	5	Feet
D =	81.19	Feet
H =	25.49	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	0.68	Feet
$y_{0\text{-SLUG}}$ =	0.69	Feet

From look-up table using L/r_w

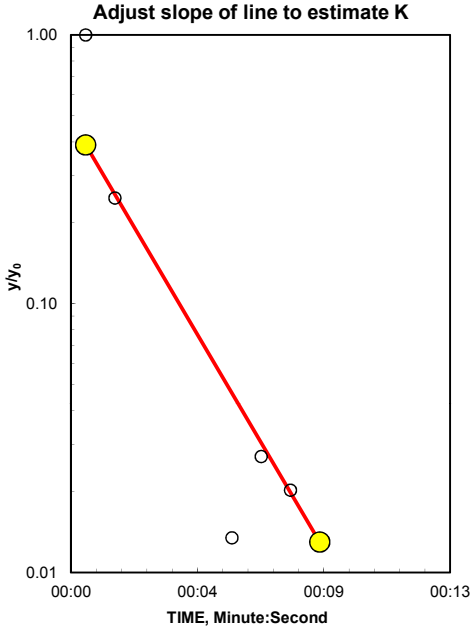
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	2.010	
Re =	2.49	Feet
Slope =	0.18464	$\log_{10}$/sec
$t_{90\%}$ recovery =	5	sec

Input is consistent.

K = 51 Feet/Day



Adjust slope of line to estimate K



REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	10:06:34.0	21.13
2	10:06:35.0	21.64
3	10:06:36.0	21.86
4	10:06:37.0	21.87
5	10:06:38.0	21.83
6	10:06:39.0	21.80
7	10:06:40.0	21.79
8	10:06:41.0	21.80
9	10:06:42.0	21.81

NOTES:

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-13 Slug In
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	18.85	Feet
top of screen (TOS)	22.2	Feet
Base of Aquifer (DTB)	35	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

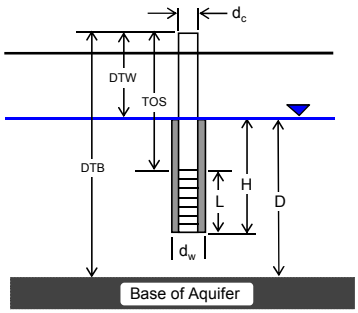
L_{wetted}	5	Feet
D =	16.15	Feet
H =	8.35	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	1.15	Feet
$y_{0\text{-SLUG}}$ =	1.18	Feet

From look-up table using L/r_w

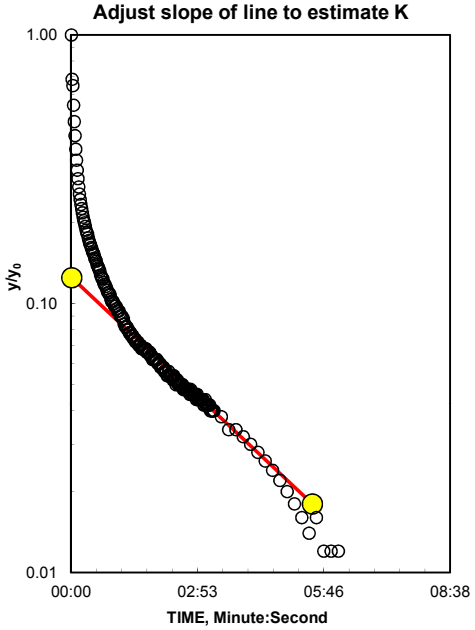
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.836	
Re =	2.09	Feet
Slope =	0.002558	$\log_{10}$/sec
$t_{90\%}$ recovery =	391	sec

Input is consistent.

K =	0.7	Feet/Day



Adjust slope of line to estimate K



K= 0.65 is less than likely minimum of 3 for Fine Sand

NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	12:24:30.0	17.70
2	12:24:34.0	18.30
3	12:24:38.0	18.49
4	12:24:42.0	18.57
5	12:24:46.0	18.61
6	12:24:50.0	18.63
7	12:24:54.0	18.65
8	12:24:58.0	18.67
9	12:25:02.0	18.68
10	12:25:06.0	18.69
11	12:25:10.0	18.70
12	12:25:14.0	18.71
13	12:25:18.0	18.72
14	12:25:22.0	18.73
15	12:25:26.0	18.73
16	12:25:30.0	18.74
17	12:25:34.0	18.74
18	12:25:38.0	18.75
19	12:25:42.0	18.75
20	12:25:46.0	18.76
21	12:25:50.0	18.76
22	12:25:54.0	18.76
23	12:25:58.0	18.77
24	12:26:02.0	18.77
25	12:26:06.0	18.77
26	12:26:10.0	18.77
27	12:26:14.0	18.77
28	12:26:18.0	18.78
29	12:26:22.0	18.78
30	12:26:26.0	18.78
31	12:26:30.0	18.78
32	12:26:34.0	18.78
33	12:26:38.0	18.79
34	12:26:42.0	18.79
35	12:26:46.0	18.79
36	12:26:50.0	18.79
37	12:26:54.0	18.79
38	12:26:58.0	18.79
39	12:27:02.0	18.79
40	12:27:06.0	18.79
41	12:27:10.0	18.79
42	12:27:14.0	18.80
43	12:27:18.0	18.80
44	12:27:22.0	18.80
45	12:27:26.0	18.80

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-13 Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	18.85	Feet
top of screen (TOS)	22.2	Feet
Base of Aquifer (DTB)	35	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

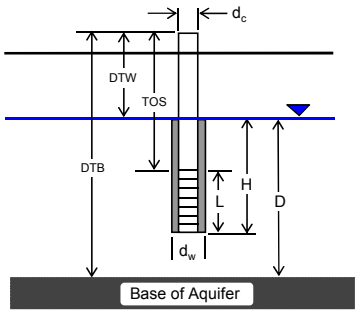
L_{wetted}	5	Feet
D =	16.15	Feet
H =	8.35	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	1.10	Feet
$y_{0\text{-SLUG}}$ =	1.13	Feet

From look-up table using L/r_w

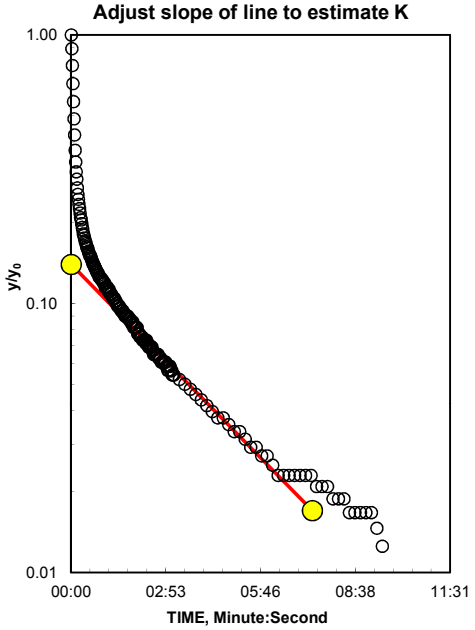
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.836	
Re =	2.09	Feet
Slope =	0.002083	$\log_{10}$/sec
$t_{90\%}$ recovery =	480	sec

Input is consistent.

K =	0.5	Feet/Day



Adjust slope of line to estimate K



K= 0.53 is less than likely minimum of 3 for Fine Sand

NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	12:38:18.0	19.95
2	12:38:23.0	19.39
3	12:38:28.0	19.17
4	12:38:33.0	19.10
5	12:38:38.0	19.06
6	12:38:43.0	19.04
7	12:38:48.0	19.03
8	12:38:53.0	19.02
9	12:38:58.0	19.00
10	12:39:03.0	19.00
11	12:39:08.0	18.99
12	12:39:13.0	18.99
13	12:39:18.0	18.98
14	12:39:23.0	18.98
15	12:39:28.0	18.97
16	12:39:33.0	18.97
17	12:39:38.0	18.96
18	12:39:43.0	18.96
19	12:39:48.0	18.96
20	12:39:53.0	18.95
21	12:39:58.0	18.95
22	12:40:03.0	18.95
23	12:40:08.0	18.94
24	12:40:13.0	18.94
25	12:40:18.0	18.94
26	12:40:23.0	18.93
27	12:40:28.0	18.93
28	12:40:33.0	18.93
29	12:40:38.0	18.93
30	12:40:43.0	18.93
31	12:40:48.0	18.92
32	12:40:53.0	18.92
33	12:40:58.0	18.92
34	12:41:03.0	18.92
35	12:41:08.0	18.92
36	12:41:13.0	18.91
37	12:41:18.0	18.91
38	12:41:23.0	18.91
39	12:41:55.0	18.90
40	12:42:45.0	18.89
41	12:43:35.0	18.88
42	12:44:25.0	18.88
43	12:45:15.0	18.88
44	12:46:05.0	18.87
45	12:46:55.0	18.87

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-15 Slug In
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	17.41	Feet
top of screen (TOS)	21.7	Feet
Base of Aquifer (DTB)	29	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

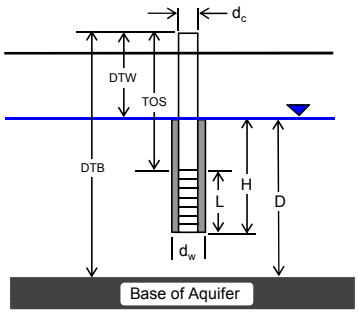
L_{wetted}	5	Feet
D =	11.59	Feet
H =	9.29	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	1.45	Feet
$y_{0\text{-SLUG}}$ =	1.49	Feet

From look-up table using L/r_w

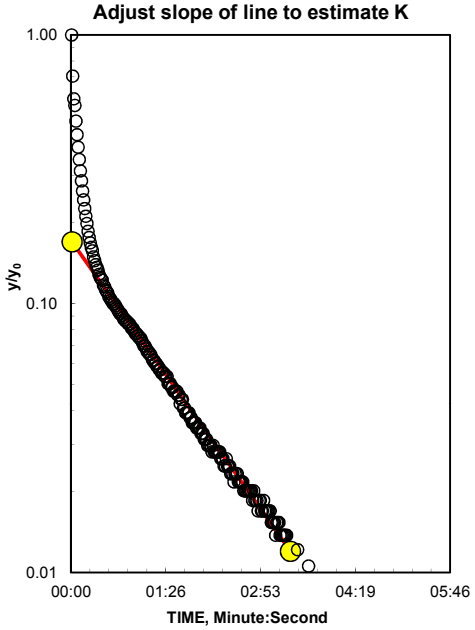
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.968	
Re =	2.38	Feet
Slope =	0.005785	log_{10}/sec
$t_{90\%}$ recovery =	173	sec

Input is consistent.

K =	1.6	Feet/Day



Adjust slope of line to estimate K



K= 1.6 is less than likely minimum of 3 for Fine Sand

NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	14:27:36.0	15.96
2	14:27:40.0	16.72
3	14:27:44.0	16.96
4	14:27:48.0	17.08
5	14:27:52.0	17.15
6	14:27:56.0	17.19
7	14:28:00.0	17.22
8	14:28:04.0	17.23
9	14:28:08.0	17.25
10	14:28:12.0	17.26
11	14:28:16.0	17.27
12	14:28:20.0	17.28
13	14:28:24.0	17.28
14	14:28:28.0	17.29
15	14:28:32.0	17.29
16	14:28:36.0	17.30
17	14:28:40.0	17.30
18	14:28:44.0	17.31
19	14:28:48.0	17.32
20	14:28:52.0	17.32
21	14:28:56.0	17.33
22	14:29:00.0	17.33
23	14:29:04.0	17.34
24	14:29:08.0	17.34
25	14:29:12.0	17.34
26	14:29:16.0	17.35
27	14:29:20.0	17.35
28	14:29:24.0	17.36
29	14:29:28.0	17.36
30	14:29:32.0	17.36
31	14:29:36.0	17.36
32	14:29:40.0	17.37
33	14:29:44.0	17.37
34	14:29:48.0	17.37
35	14:29:52.0	17.37
36	14:29:56.0	17.37
37	14:30:00.0	17.37
38	14:30:04.0	17.38
39	14:30:08.0	17.38
40	14:30:12.0	17.38
41	14:30:16.0	17.38
42	14:30:20.0	17.38
43	14:30:24.0	17.38
44	14:30:28.0	17.38
45	14:30:32.0	17.39

BOUWER AND RICE 1976 - SLUG TEST SOLUTION FOR UNCONFINED AQUIFER

HARTLAND 36 GAS PLANT
SECTION 36, HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
ECT PROJECT #13-0685-2000

Slug Test Name: MW-15 Slug Out
Date: 8/03/2016

INPUT

Construction:

Casing dia. (d_c)	2	Inch
Annulus dia. (d_w)	8	Inch
Screen Length (L)	5	Feet

Depths to:

water level (DTW)	17.41	Feet
top of screen (TOS)	21.7	Feet
Base of Aquifer (DTB)	29	Feet

Annular Fill:

across screen -- Coarse Sand
above screen -- Bentonite

Aquifer Material -- Fine Sand

COMPUTED

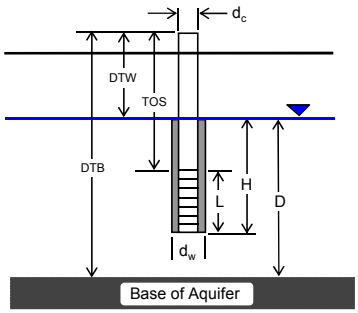
L_{wetted}	5	Feet
D =	11.59	Feet
H =	9.29	Feet
L/r_w =	15.00	
$y_{0\text{-DISPLACEMENT}}$ =	1.22	Feet
$y_{0\text{-SLUG}}$ =	1.49	Feet

From look-up table using L/r_w

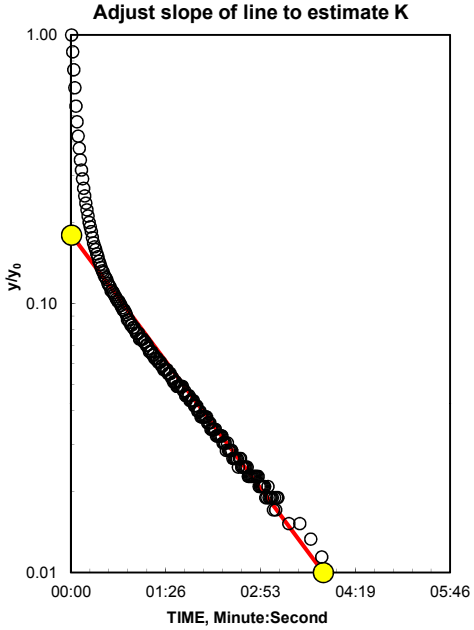
Partial penetrate A =	2.063	
B =	0.312	
ln(Re/rw) =	1.968	
Re =	2.38	Feet
Slope =	0.00547	$\log_{10}$/sec
$t_{90\%}$ recovery =	183	sec

Input is consistent.

K =	1.5	Feet/Day



Adjust slope of line to estimate K



K= 1.5 is less than likely minimum of 3 for Fine Sand

NOTES:

REDUCED DATA

Entry	Time (Hr:Min:Sec)	Water Level (ft btoc)
1	14:40:44.0	18.63
2	14:40:48.0	18.07
3	14:40:52.0	17.83
4	14:40:56.0	17.72
5	14:41:00.0	17.65
6	14:41:04.0	17.62
7	14:41:08.0	17.59
8	14:41:12.0	17.57
9	14:41:16.0	17.56
10	14:41:20.0	17.55
11	14:41:24.0	17.54
12	14:41:28.0	17.53
13	14:41:32.0	17.53
14	14:41:36.0	17.52
15	14:41:40.0	17.51
16	14:41:44.0	17.50
17	14:41:48.0	17.50
18	14:41:52.0	17.50
19	14:41:56.0	17.49
20	14:42:00.0	17.49
21	14:42:04.0	17.48
22	14:42:08.0	17.48
23	14:42:12.0	17.48
24	14:42:16.0	17.47
25	14:42:20.0	17.47
26	14:42:24.0	17.47
27	14:42:28.0	17.47
28	14:42:32.0	17.46
29	14:42:36.0	17.46
30	14:42:40.0	17.46
31	14:42:44.0	17.46
32	14:42:48.0	17.45
33	14:42:52.0	17.45
34	14:42:56.0	17.45
35	14:43:00.0	17.45
36	14:43:04.0	17.45
37	14:43:08.0	17.44
38	14:43:12.0	17.44
39	14:43:16.0	17.44
40	14:43:20.0	17.44
41	14:43:24.0	17.44
42	14:43:28.0	17.44
43	14:43:32.0	17.44
44	14:43:36.0	17.44
45	14:43:40.0	17.44

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-6
Test: Slug In

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-6 Slug In
# Records	207

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.745	10.69
Maximum	3.455	11.25
Mean	2.803	11.06
Variance	0.0127	0.013
Std Deviation	0.1129	0.114

Measured DTW (ft btoc) = 21.60

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 11:48:55	2.749	11.13	6.341	21.60
2	8/3/2016 11:48:56	2.75	11.19	6.343	21.60
3	8/3/2016 11:48:57	2.749	11.19	6.341	21.60
4	8/3/2016 11:48:58	2.748	11.25	6.339	21.60
5	8/3/2016 11:48:59	2.749	11.25	6.341	21.60
6	8/3/2016 11:49:00	2.749	11.25	6.341	21.60
7	8/3/2016 11:49:01	2.839	11.25	6.549	21.39
8	8/3/2016 11:49:02	3.455	11.25	7.970	19.97
9	8/3/2016 11:49:03	3.236	11.25	7.464	20.48
10	8/3/2016 11:49:04	3.234	11.25	7.460	20.48
11	8/3/2016 11:49:05	3.21	11.25	7.404	20.54
12	8/3/2016 11:49:06	3.188	11.25	7.354	20.59
13	8/3/2016 11:49:07	3.168	11.19	7.307	20.63
14	8/3/2016 11:49:08	3.147	11.25	7.259	20.68
15	8/3/2016 11:49:09	3.127	11.25	7.213	20.73
16	8/3/2016 11:49:10	3.109	11.25	7.171	20.77
17	8/3/2016 11:49:11	3.092	11.25	7.132	20.81
18	8/3/2016 11:49:12	3.074	11.25	7.091	20.85
19	8/3/2016 11:49:13	3.059	11.25	7.056	20.88
20	8/3/2016 11:49:14	3.044	11.25	7.021	20.92
21	8/3/2016 11:49:15	3.03	11.25	6.989	20.95
22	8/3/2016 11:49:16	3.016	11.19	6.957	20.98
23	8/3/2016 11:49:17	3.003	11.25	6.927	21.01
24	8/3/2016 11:49:18	2.991	11.19	6.899	21.04
25	8/3/2016 11:49:19	2.98	11.25	6.874	21.07
26	8/3/2016 11:49:20	2.968	11.19	6.846	21.09
27	8/3/2016 11:49:21	2.959	11.19	6.825	21.12
28	8/3/2016 11:49:22	2.949	11.19	6.802	21.14
29	8/3/2016 11:49:23	2.939	11.19	6.779	21.16
30	8/3/2016 11:49:24	2.929	11.19	6.756	21.18
31	8/3/2016 11:49:25	2.921	11.19	6.738	21.20
32	8/3/2016 11:49:26	2.913	11.19	6.719	21.22
33	8/3/2016 11:49:27	2.906	11.19	6.703	21.24
34	8/3/2016 11:49:28	2.898	11.19	6.685	21.26
35	8/3/2016 11:49:29	2.891	11.19	6.669	21.27
36	8/3/2016 11:49:30	2.885	11.19	6.655	21.29
37	8/3/2016 11:49:31	2.878	11.19	6.639	21.30
38	8/3/2016 11:49:32	2.872	11.19	6.625	21.32
39	8/3/2016 11:49:33	2.866	11.19	6.611	21.33
40	8/3/2016 11:49:34	2.86	11.19	6.597	21.34
41	8/3/2016 11:49:35	2.856	11.19	6.588	21.35
42	8/3/2016 11:49:36	2.85	11.19	6.574	21.37
43	8/3/2016 11:49:37	2.846	11.19	6.565	21.38
44	8/3/2016 11:49:38	2.841	11.19	6.553	21.39
45	8/3/2016 11:49:39	2.837	11.19	6.544	21.40
46	8/3/2016 11:49:40	2.832	11.19	6.532	21.41
47	8/3/2016 11:49:41	2.829	11.19	6.526	21.42

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 11:49:42	2.824	11.19	6.514	21.43
49	8/3/2016 11:49:43	2.821	11.19	6.507	21.43
50	8/3/2016 11:49:44	2.817	11.19	6.498	21.44
51	8/3/2016 11:49:45	2.814	11.19	6.491	21.45
52	8/3/2016 11:49:46	2.812	11.19	6.486	21.45
53	8/3/2016 11:49:47	2.809	11.13	6.479	21.46
54	8/3/2016 11:49:48	2.806	11.13	6.472	21.47
55	8/3/2016 11:49:49	2.803	11.13	6.466	21.48
56	8/3/2016 11:49:50	2.801	11.13	6.461	21.48
57	8/3/2016 11:49:51	2.799	11.13	6.456	21.48
58	8/3/2016 11:49:52	2.796	11.13	6.449	21.49
59	8/3/2016 11:49:53	2.793	11.13	6.442	21.50
60	8/3/2016 11:49:54	2.792	11.13	6.440	21.50
61	8/3/2016 11:49:55	2.79	11.13	6.436	21.51
62	8/3/2016 11:49:56	2.788	11.13	6.431	21.51
63	8/3/2016 11:49:57	2.787	11.13	6.429	21.51
64	8/3/2016 11:49:58	2.784	11.13	6.422	21.52
65	8/3/2016 11:49:59	2.782	11.13	6.417	21.52
66	8/3/2016 11:50:00	2.781	11.13	6.415	21.53
67	8/3/2016 11:50:01	2.779	11.13	6.410	21.53
68	8/3/2016 11:50:02	2.778	11.13	6.408	21.53
69	8/3/2016 11:50:03	2.776	11.13	6.403	21.54
70	8/3/2016 11:50:04	2.775	11.13	6.401	21.54
71	8/3/2016 11:50:05	2.774	11.13	6.399	21.54
72	8/3/2016 11:50:06	2.773	11.13	6.396	21.54
73	8/3/2016 11:50:07	2.772	11.13	6.394	21.55
74	8/3/2016 11:50:08	2.77	11.13	6.389	21.55
75	8/3/2016 11:50:09	2.77	11.13	6.389	21.55
76	8/3/2016 11:50:10	2.768	11.13	6.385	21.56
77	8/3/2016 11:50:11	2.767	11.06	6.383	21.56
78	8/3/2016 11:50:12	2.767	11.13	6.383	21.56
79	8/3/2016 11:50:13	2.766	11.13	6.380	21.56
80	8/3/2016 11:50:14	2.765	11.06	6.378	21.56
81	8/3/2016 11:50:15	2.764	11.13	6.376	21.57
82	8/3/2016 11:50:16	2.763	11.06	6.373	21.57
83	8/3/2016 11:50:17	2.763	11.13	6.373	21.57
84	8/3/2016 11:50:18	2.762	11.13	6.371	21.57
85	8/3/2016 11:50:19	2.762	11.06	6.371	21.57
86	8/3/2016 11:50:20	2.761	11.06	6.369	21.57
87	8/3/2016 11:50:21	2.761	11.13	6.369	21.57
88	8/3/2016 11:50:22	2.76	11.06	6.366	21.57
89	8/3/2016 11:50:23	2.759	11.06	6.364	21.58
90	8/3/2016 11:50:24	2.759	11.06	6.364	21.58
91	8/3/2016 11:50:25	2.758	11.06	6.362	21.58
92	8/3/2016 11:50:26	2.758	11.06	6.362	21.58
93	8/3/2016 11:50:27	2.757	11.06	6.359	21.58
94	8/3/2016 11:50:28	2.756	11.06	6.357	21.58
95	8/3/2016 11:50:29	2.757	11.06	6.359	21.58
96	8/3/2016 11:50:30	2.757	11.06	6.359	21.58
97	8/3/2016 11:50:31	2.756	11.06	6.357	21.58
98	8/3/2016 11:50:32	2.755	11.06	6.355	21.59
99	8/3/2016 11:50:33	2.755	11.06	6.355	21.59
100	8/3/2016 11:50:34	2.755	11.06	6.355	21.59
101	8/3/2016 11:50:35	2.755	11.06	6.355	21.59
102	8/3/2016 11:50:36	2.754	11.06	6.353	21.59
103	8/3/2016 11:50:37	2.754	11.06	6.353	21.59
104	8/3/2016 11:50:38	2.754	11.06	6.353	21.59
105	8/3/2016 11:50:39	2.753	11.06	6.350	21.59
106	8/3/2016 11:50:40	2.753	11.06	6.350	21.59
107	8/3/2016 11:50:41	2.753	11.06	6.350	21.59
108	8/3/2016 11:50:42	2.752	11.06	6.348	21.59
109	8/3/2016 11:50:43	2.752	11.06	6.348	21.59
110	8/3/2016 11:50:44	2.752	11.06	6.348	21.59
111	8/3/2016 11:50:45	2.752	11.06	6.348	21.59
112	8/3/2016 11:50:46	2.752	11.06	6.348	21.59
113	8/3/2016 11:50:47	2.751	11.06	6.346	21.60
114	8/3/2016 11:50:48	2.751	11.06	6.346	21.60
115	8/3/2016 11:50:49	2.751	11	6.346	21.60
116	8/3/2016 11:50:50	2.751	11	6.346	21.60
117	8/3/2016 11:50:51	2.751	11	6.346	21.60
118	8/3/2016 11:50:52	2.75	11	6.343	21.60
119	8/3/2016 11:50:53	2.75	11.06	6.343	21.60

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 11:50:54	2.75	11.06	6.343	21.60
121	8/3/2016 11:50:55	2.75	11.06	6.343	21.60
122	8/3/2016 11:50:56	2.75	11	6.343	21.60
123	8/3/2016 11:50:57	2.75	11	6.343	21.60
124	8/3/2016 11:50:58	2.75	11	6.343	21.60
125	8/3/2016 11:50:59	2.749	11	6.341	21.60
126	8/3/2016 11:51:00	2.749	11	6.341	21.60
127	8/3/2016 11:51:01	2.749	11	6.341	21.60
128	8/3/2016 11:51:02	2.749	11	6.341	21.60
129	8/3/2016 11:51:03	2.749	11	6.341	21.60
130	8/3/2016 11:51:04	2.749	11	6.341	21.60
131	8/3/2016 11:51:05	2.749	11	6.341	21.60
132	8/3/2016 11:51:06	2.749	11	6.341	21.60
133	8/3/2016 11:51:07	2.749	11	6.341	21.60
134	8/3/2016 11:51:08	2.749	11	6.341	21.60
135	8/3/2016 11:51:09	2.749	11	6.341	21.60
136	8/3/2016 11:51:10	2.748	11	6.339	21.60
137	8/3/2016 11:51:11	2.748	11	6.339	21.60
138	8/3/2016 11:51:12	2.749	11	6.341	21.60
139	8/3/2016 11:51:13	2.748	11	6.339	21.60
140	8/3/2016 11:51:14	2.748	11	6.339	21.60
141	8/3/2016 11:51:15	2.749	11	6.341	21.60
142	8/3/2016 11:51:16	2.748	11	6.339	21.60
143	8/3/2016 11:51:17	2.748	11	6.339	21.60
144	8/3/2016 11:51:18	2.748	11	6.339	21.60
145	8/3/2016 11:51:19	2.748	11	6.339	21.60
146	8/3/2016 11:51:20	2.748	11	6.339	21.60
147	8/3/2016 11:51:21	2.748	11	6.339	21.60
148	8/3/2016 11:51:22	2.748	11	6.339	21.60
149	8/3/2016 11:51:23	2.748	11	6.339	21.60
150	8/3/2016 11:51:24	2.748	11	6.339	21.60
151	8/3/2016 11:51:25	2.748	11	6.339	21.60
152	8/3/2016 11:51:26	2.747	11	6.336	21.60
153	8/3/2016 11:51:27	2.748	11	6.339	21.60
154	8/3/2016 11:51:28	2.748	11	6.339	21.60
155	8/3/2016 11:51:29	2.748	11	6.339	21.60
156	8/3/2016 11:51:30	2.748	11	6.339	21.60
157	8/3/2016 11:51:31	2.747	11	6.336	21.60
158	8/3/2016 11:51:32	2.747	11	6.336	21.60
159	8/3/2016 11:51:33	2.747	11	6.336	21.60
160	8/3/2016 11:51:34	2.747	11	6.336	21.60
161	8/3/2016 11:51:35	2.747	11	6.336	21.60
162	8/3/2016 11:51:36	2.747	11	6.336	21.60
163	8/3/2016 11:51:37	2.747	10.94	6.336	21.60
164	8/3/2016 11:51:38	2.748	10.94	6.339	21.60
165	8/3/2016 11:51:39	2.747	10.94	6.336	21.60
166	8/3/2016 11:51:40	2.747	10.94	6.336	21.60
167	8/3/2016 11:51:41	2.747	10.94	6.336	21.60
168	8/3/2016 11:51:42	2.747	10.94	6.336	21.60
169	8/3/2016 11:51:43	2.747	10.94	6.336	21.60
170	8/3/2016 11:51:44	2.747	10.94	6.336	21.60
171	8/3/2016 11:51:45	2.747	10.94	6.336	21.60
172	8/3/2016 11:51:46	2.747	10.94	6.336	21.60
173	8/3/2016 11:51:47	2.747	10.94	6.336	21.60
174	8/3/2016 11:51:48	2.747	10.94	6.336	21.60
175	8/3/2016 11:51:49	2.747	10.94	6.336	21.60
176	8/3/2016 11:51:50	2.747	10.94	6.336	21.60
177	8/3/2016 11:51:51	2.747	10.94	6.336	21.60
178	8/3/2016 11:51:52	2.747	10.94	6.336	21.60
179	8/3/2016 11:51:53	2.747	10.94	6.336	21.60
180	8/3/2016 11:51:54	2.747	10.94	6.336	21.60
181	8/3/2016 11:51:55	2.747	10.94	6.336	21.60
182	8/3/2016 11:51:56	2.747	10.94	6.336	21.60
183	8/3/2016 11:51:57	2.747	10.94	6.336	21.60
184	8/3/2016 11:51:58	2.747	10.94	6.336	21.60
185	8/3/2016 11:51:59	2.747	10.94	6.336	21.60
186	8/3/2016 11:52:00	2.747	10.94	6.336	21.60
187	8/3/2016 11:52:01	2.747	10.94	6.336	21.60
188	8/3/2016 11:52:02	2.747	10.94	6.336	21.60
189	8/3/2016 11:52:03	2.747	10.94	6.336	21.60
190	8/3/2016 11:52:04	2.747	10.94	6.336	21.60
191	8/3/2016 11:52:05	2.747	10.94	6.336	21.60

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 11:52:06	2.747	10.94	6.336	21.60
193	8/3/2016 11:52:07	2.747	10.94	6.336	21.60
194	8/3/2016 11:52:08	2.747	10.94	6.336	21.60
195	8/3/2016 11:52:09	2.746	10.94	6.334	21.61
196	8/3/2016 11:52:10	2.746	10.94	6.334	21.61
197	8/3/2016 11:52:11	2.747	10.94	6.336	21.60
198	8/3/2016 11:52:12	2.746	10.94	6.334	21.61
199	8/3/2016 11:52:13	2.746	10.94	6.334	21.61
200	8/3/2016 11:52:14	2.747	10.94	6.336	21.60
201	8/3/2016 11:52:24	2.747	10.94	6.336	21.60
202	8/3/2016 11:52:34	2.746	10.88	6.334	21.61
203	8/3/2016 11:52:44	2.745	10.75	6.332	21.61
204	8/3/2016 11:52:54	2.747	10.69	6.336	21.60
205	8/3/2016 11:53:04	2.746	10.69	6.334	21.61
206	8/3/2016 11:53:14	2.746	10.75	6.334	21.61
207	8/3/2016 11:53:24	2.746	10.75	6.334	21.61

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-6
Test: Slug Out

Advanced Calibration Data	Cal Date	m2	m1	m0	b3	b2	b1	b0
Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data	Slope	Offset	Cal Date
Pressure	1.003793955	-0.159000009	7/18/2016 11:35
Temperature	1	0	4/6/2010 9:18

Sensor SN	**21051019**
Sensor Type	**PT2X**
Sensor Name	**Geotech Rental #4577**
File Name	**MW-6 Slug Out**
# Records	**228**

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.162	10.31
Maximum	2.745	10.69
Mean	2.682	10.65
Variance	0.0139	0.008
Std Deviation	0.1178	0.087

Measured DTW (ft btoc) = 21.60

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 11:55:10	2.745	10.56	6.332	21.60
2	8/3/2016 11:55:11	2.745	10.56	6.332	21.60
3	8/3/2016 11:55:12	2.744	10.56	6.329	21.60
4	8/3/2016 11:55:13	2.744	10.63	6.329	21.60
5	8/3/2016 11:55:14	2.649	10.63	6.110	21.82
6	8/3/2016 11:55:15	2.162	10.56	4.987	22.95
7	8/3/2016 11:55:16	2.175	10.63	5.017	22.92
8	8/3/2016 11:55:17	2.205	10.63	5.086	22.85
9	8/3/2016 11:55:18	2.234	10.63	5.153	22.78
10	8/3/2016 11:55:19	2.26	10.63	5.213	22.72
11	8/3/2016 11:55:20	2.284	10.63	5.268	22.66
12	8/3/2016 11:55:21	2.305	10.63	5.317	22.62
13	8/3/2016 11:55:22	2.325	10.63	5.363	22.57
14	8/3/2016 11:55:23	2.342	10.63	5.402	22.53
15	8/3/2016 11:55:24	2.36	10.63	5.444	22.49
16	8/3/2016 11:55:25	2.377	10.63	5.483	22.45
17	8/3/2016 11:55:26	2.392	10.63	5.518	22.41
18	8/3/2016 11:55:27	2.407	10.63	5.552	22.38
19	8/3/2016 11:55:28	2.42	10.63	5.582	22.35
20	8/3/2016 11:55:29	2.434	10.63	5.614	22.32
21	8/3/2016 11:55:30	2.448	10.63	5.647	22.29
22	8/3/2016 11:55:31	2.46	10.63	5.674	22.26
23	8/3/2016 11:55:32	2.472	10.63	5.702	22.23
24	8/3/2016 11:55:33	2.484	10.63	5.730	22.20
25	8/3/2016 11:55:34	2.493	10.63	5.751	22.18
26	8/3/2016 11:55:35	2.503	10.63	5.774	22.16
27	8/3/2016 11:55:36	2.514	10.63	5.799	22.13
28	8/3/2016 11:55:37	2.523	10.63	5.820	22.11
29	8/3/2016 11:55:38	2.532	10.63	5.840	22.09
30	8/3/2016 11:55:39	2.54	10.63	5.859	22.07
31	8/3/2016 11:55:40	2.548	10.63	5.877	22.05
32	8/3/2016 11:55:41	2.557	10.69	5.898	22.03
33	8/3/2016 11:55:42	2.565	10.69	5.917	22.02
34	8/3/2016 11:55:43	2.572	10.63	5.933	22.00
35	8/3/2016 11:55:44	2.579	10.63	5.949	21.98
36	8/3/2016 11:55:45	2.586	10.63	5.965	21.97
37	8/3/2016 11:55:46	2.591	10.69	5.977	21.96
38	8/3/2016 11:55:47	2.597	10.69	5.990	21.94
39	8/3/2016 11:55:48	2.604	10.69	6.007	21.93
40	8/3/2016 11:55:49	2.61	10.69	6.020	21.91
41	8/3/2016 11:55:50	2.615	10.63	6.032	21.90
42	8/3/2016 11:55:51	2.62	10.69	6.043	21.89
43	8/3/2016 11:55:52	2.625	10.69	6.055	21.88
44	8/3/2016 11:55:53	2.63	10.69	6.067	21.87
45	8/3/2016 11:55:54	2.634	10.63	6.076	21.86
46	8/3/2016 11:55:55	2.638	10.63	6.085	21.85
47	8/3/2016 11:55:56	2.642	10.69	6.094	21.84

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 11:55:57	2.646	10.69	6.103	21.83
49	8/3/2016 11:55:58	2.649	10.69	6.110	21.82
50	8/3/2016 11:55:59	2.654	10.69	6.122	21.81
51	8/3/2016 11:56:00	2.658	10.69	6.131	21.80
52	8/3/2016 11:56:01	2.661	10.69	6.138	21.79
53	8/3/2016 11:56:02	2.664	10.69	6.145	21.79
54	8/3/2016 11:56:03	2.667	10.69	6.152	21.78
55	8/3/2016 11:56:04	2.671	10.69	6.161	21.77
56	8/3/2016 11:56:05	2.673	10.69	6.166	21.77
57	8/3/2016 11:56:06	2.676	10.69	6.173	21.76
58	8/3/2016 11:56:07	2.678	10.69	6.177	21.75
59	8/3/2016 11:56:08	2.681	10.69	6.184	21.75
60	8/3/2016 11:56:09	2.683	10.69	6.189	21.74
61	8/3/2016 11:56:10	2.686	10.69	6.196	21.74
62	8/3/2016 11:56:11	2.688	10.69	6.200	21.73
63	8/3/2016 11:56:12	2.69	10.69	6.205	21.73
64	8/3/2016 11:56:13	2.692	10.69	6.210	21.72
65	8/3/2016 11:56:14	2.694	10.69	6.214	21.72
66	8/3/2016 11:56:15	2.696	10.69	6.219	21.71
67	8/3/2016 11:56:16	2.698	10.69	6.223	21.71
68	8/3/2016 11:56:17	2.699	10.69	6.226	21.71
69	8/3/2016 11:56:18	2.701	10.69	6.230	21.70
70	8/3/2016 11:56:19	2.704	10.69	6.237	21.69
71	8/3/2016 11:56:20	2.705	10.69	6.240	21.69
72	8/3/2016 11:56:21	2.706	10.69	6.242	21.69
73	8/3/2016 11:56:22	2.707	10.69	6.244	21.69
74	8/3/2016 11:56:23	2.709	10.69	6.249	21.68
75	8/3/2016 11:56:24	2.711	10.69	6.253	21.68
76	8/3/2016 11:56:25	2.712	10.69	6.256	21.68
77	8/3/2016 11:56:26	2.713	10.69	6.258	21.67
78	8/3/2016 11:56:27	2.714	10.69	6.260	21.67
79	8/3/2016 11:56:28	2.715	10.69	6.263	21.67
80	8/3/2016 11:56:29	2.716	10.69	6.265	21.67
81	8/3/2016 11:56:30	2.717	10.69	6.267	21.66
82	8/3/2016 11:56:31	2.718	10.69	6.269	21.66
83	8/3/2016 11:56:32	2.719	10.69	6.272	21.66
84	8/3/2016 11:56:33	2.72	10.69	6.274	21.66
85	8/3/2016 11:56:34	2.721	10.69	6.276	21.66
86	8/3/2016 11:56:35	2.722	10.69	6.279	21.65
87	8/3/2016 11:56:36	2.722	10.69	6.279	21.65
88	8/3/2016 11:56:37	2.723	10.69	6.281	21.65
89	8/3/2016 11:56:38	2.724	10.69	6.283	21.65
90	8/3/2016 11:56:39	2.725	10.69	6.286	21.65
91	8/3/2016 11:56:40	2.726	10.69	6.288	21.64
92	8/3/2016 11:56:41	2.726	10.69	6.288	21.64
93	8/3/2016 11:56:42	2.727	10.69	6.290	21.64
94	8/3/2016 11:56:43	2.727	10.69	6.290	21.64
95	8/3/2016 11:56:44	2.728	10.69	6.293	21.64
96	8/3/2016 11:56:45	2.729	10.69	6.295	21.64
97	8/3/2016 11:56:46	2.729	10.69	6.295	21.64
98	8/3/2016 11:56:47	2.73	10.69	6.297	21.63
99	8/3/2016 11:56:48	2.73	10.69	6.297	21.63
100	8/3/2016 11:56:49	2.731	10.69	6.299	21.63
101	8/3/2016 11:56:50	2.731	10.69	6.299	21.63
102	8/3/2016 11:56:51	2.732	10.69	6.302	21.63
103	8/3/2016 11:56:52	2.732	10.69	6.302	21.63
104	8/3/2016 11:56:53	2.733	10.69	6.304	21.63
105	8/3/2016 11:56:54	2.733	10.69	6.304	21.63
106	8/3/2016 11:56:55	2.733	10.69	6.304	21.63
107	8/3/2016 11:56:56	2.734	10.69	6.306	21.63
108	8/3/2016 11:56:57	2.734	10.69	6.306	21.63
109	8/3/2016 11:56:58	2.735	10.69	6.309	21.62
110	8/3/2016 11:56:59	2.735	10.69	6.309	21.62
111	8/3/2016 11:57:00	2.735	10.69	6.309	21.62
112	8/3/2016 11:57:01	2.736	10.69	6.311	21.62
113	8/3/2016 11:57:02	2.736	10.69	6.311	21.62
114	8/3/2016 11:57:03	2.736	10.69	6.311	21.62
115	8/3/2016 11:57:04	2.737	10.69	6.313	21.62
116	8/3/2016 11:57:05	2.736	10.69	6.311	21.62
117	8/3/2016 11:57:06	2.737	10.69	6.313	21.62
118	8/3/2016 11:57:07	2.737	10.69	6.313	21.62
119	8/3/2016 11:57:08	2.738	10.69	6.316	21.62

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 11:57:09	2.738	10.69	6.316	21.62
121	8/3/2016 11:57:10	2.738	10.69	6.316	21.62
122	8/3/2016 11:57:11	2.738	10.69	6.316	21.62
123	8/3/2016 11:57:12	2.739	10.69	6.318	21.61
124	8/3/2016 11:57:13	2.738	10.69	6.316	21.62
125	8/3/2016 11:57:14	2.739	10.69	6.318	21.61
126	8/3/2016 11:57:15	2.739	10.69	6.318	21.61
127	8/3/2016 11:57:16	2.739	10.69	6.318	21.61
128	8/3/2016 11:57:17	2.739	10.69	6.318	21.61
129	8/3/2016 11:57:18	2.739	10.69	6.318	21.61
130	8/3/2016 11:57:19	2.739	10.69	6.318	21.61
131	8/3/2016 11:57:20	2.74	10.69	6.320	21.61
132	8/3/2016 11:57:21	2.74	10.69	6.320	21.61
133	8/3/2016 11:57:22	2.74	10.69	6.320	21.61
134	8/3/2016 11:57:23	2.74	10.69	6.320	21.61
135	8/3/2016 11:57:24	2.741	10.69	6.323	21.61
136	8/3/2016 11:57:25	2.741	10.69	6.323	21.61
137	8/3/2016 11:57:26	2.741	10.69	6.323	21.61
138	8/3/2016 11:57:27	2.74	10.69	6.320	21.61
139	8/3/2016 11:57:28	2.741	10.69	6.323	21.61
140	8/3/2016 11:57:29	2.741	10.69	6.323	21.61
141	8/3/2016 11:57:30	2.741	10.69	6.323	21.61
142	8/3/2016 11:57:31	2.741	10.69	6.323	21.61
143	8/3/2016 11:57:32	2.742	10.69	6.325	21.61
144	8/3/2016 11:57:33	2.742	10.69	6.325	21.61
145	8/3/2016 11:57:34	2.741	10.69	6.323	21.61
146	8/3/2016 11:57:35	2.742	10.69	6.325	21.61
147	8/3/2016 11:57:36	2.742	10.69	6.325	21.61
148	8/3/2016 11:57:37	2.742	10.69	6.325	21.61
149	8/3/2016 11:57:38	2.742	10.69	6.325	21.61
150	8/3/2016 11:57:39	2.741	10.69	6.323	21.61
151	8/3/2016 11:57:40	2.742	10.69	6.325	21.61
152	8/3/2016 11:57:41	2.742	10.69	6.325	21.61
153	8/3/2016 11:57:42	2.742	10.69	6.325	21.61
154	8/3/2016 11:57:43	2.742	10.69	6.325	21.61
155	8/3/2016 11:57:44	2.742	10.69	6.325	21.61
156	8/3/2016 11:57:45	2.742	10.69	6.325	21.61
157	8/3/2016 11:57:46	2.743	10.69	6.327	21.60
158	8/3/2016 11:57:47	2.742	10.69	6.325	21.61
159	8/3/2016 11:57:48	2.742	10.69	6.325	21.61
160	8/3/2016 11:57:49	2.742	10.69	6.325	21.61
161	8/3/2016 11:57:50	2.743	10.69	6.327	21.60
162	8/3/2016 11:57:51	2.742	10.69	6.325	21.61
163	8/3/2016 11:57:52	2.743	10.69	6.327	21.60
164	8/3/2016 11:57:53	2.743	10.69	6.327	21.60
165	8/3/2016 11:57:54	2.743	10.69	6.327	21.60
166	8/3/2016 11:57:55	2.743	10.69	6.327	21.60
167	8/3/2016 11:57:56	2.743	10.69	6.327	21.60
168	8/3/2016 11:57:57	2.743	10.69	6.327	21.60
169	8/3/2016 11:57:58	2.743	10.69	6.327	21.60
170	8/3/2016 11:57:59	2.743	10.69	6.327	21.60
171	8/3/2016 11:58:00	2.743	10.69	6.327	21.60
172	8/3/2016 11:58:01	2.744	10.69	6.329	21.60
173	8/3/2016 11:58:02	2.744	10.69	6.329	21.60
174	8/3/2016 11:58:03	2.744	10.69	6.329	21.60
175	8/3/2016 11:58:04	2.743	10.69	6.327	21.60
176	8/3/2016 11:58:05	2.744	10.69	6.329	21.60
177	8/3/2016 11:58:06	2.744	10.69	6.329	21.60
178	8/3/2016 11:58:07	2.744	10.69	6.329	21.60
179	8/3/2016 11:58:08	2.744	10.69	6.329	21.60
180	8/3/2016 11:58:09	2.744	10.69	6.329	21.60
181	8/3/2016 11:58:10	2.744	10.69	6.329	21.60
182	8/3/2016 11:58:11	2.744	10.69	6.329	21.60
183	8/3/2016 11:58:12	2.743	10.69	6.327	21.60
184	8/3/2016 11:58:13	2.743	10.69	6.327	21.60
185	8/3/2016 11:58:14	2.744	10.69	6.329	21.60
186	8/3/2016 11:58:15	2.744	10.69	6.329	21.60
187	8/3/2016 11:58:16	2.744	10.69	6.329	21.60
188	8/3/2016 11:58:17	2.744	10.69	6.329	21.60
189	8/3/2016 11:58:18	2.744	10.69	6.329	21.60
190	8/3/2016 11:58:19	2.744	10.69	6.329	21.60
191	8/3/2016 11:58:20	2.744	10.69	6.329	21.60

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 11:58:21	2.744	10.69	6.329	21.60
193	8/3/2016 11:58:22	2.744	10.69	6.329	21.60
194	8/3/2016 11:58:23	2.744	10.69	6.329	21.60
195	8/3/2016 11:58:24	2.744	10.69	6.329	21.60
196	8/3/2016 11:58:25	2.744	10.69	6.329	21.60
197	8/3/2016 11:58:26	2.744	10.69	6.329	21.60
198	8/3/2016 11:58:27	2.744	10.69	6.329	21.60
199	8/3/2016 11:58:28	2.745	10.69	6.332	21.60
200	8/3/2016 11:58:29	2.744	10.69	6.329	21.60
201	8/3/2016 11:58:39	2.744	10.56	6.329	21.60
202	8/3/2016 11:58:49	2.744	10.5	6.329	21.60
203	8/3/2016 11:58:59	2.744	10.5	6.329	21.60
204	8/3/2016 11:59:09	2.744	10.44	6.329	21.60
205	8/3/2016 11:59:19	2.744	10.44	6.329	21.60
206	8/3/2016 11:59:29	2.744	10.44	6.329	21.60
207	8/3/2016 11:59:39	2.744	10.38	6.329	21.60
208	8/3/2016 11:59:49	2.744	10.38	6.329	21.60
209	8/3/2016 11:59:59	2.744	10.38	6.329	21.60
210	8/3/2016 12:00:09	2.744	10.38	6.329	21.60
211	8/3/2016 12:00:19	2.744	10.38	6.329	21.60
212	8/3/2016 12:00:29	2.744	10.38	6.329	21.60
213	8/3/2016 12:00:39	2.744	10.38	6.329	21.60
214	8/3/2016 12:00:49	2.744	10.31	6.329	21.60
215	8/3/2016 12:00:59	2.744	10.31	6.329	21.60
216	8/3/2016 12:01:09	2.744	10.31	6.329	21.60
217	8/3/2016 12:01:19	2.744	10.44	6.329	21.60
218	8/3/2016 12:01:29	2.744	10.5	6.329	21.60
219	8/3/2016 12:01:39	2.743	10.5	6.327	21.60
220	8/3/2016 12:01:49	2.744	10.56	6.329	21.60
221	8/3/2016 12:01:59	2.744	10.56	6.329	21.60
222	8/3/2016 12:02:09	2.744	10.56	6.329	21.60
223	8/3/2016 12:02:19	2.744	10.56	6.329	21.60
224	8/3/2016 12:02:29	2.744	10.5	6.329	21.60
225	8/3/2016 12:02:39	2.744	10.44	6.329	21.60
226	8/3/2016 12:02:49	2.744	10.44	6.329	21.60
227	8/3/2016 12:02:59	2.744	10.38	6.329	21.60
228	8/3/2016 12:03:09	2.744	10.38	6.329	21.60

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-6D
Test: Slug In

Advanced Calibration Data	Cal Date	m2	m1	m0	b3	b2	b1	b0
Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data	Slope	Offset	Cal Date
Pressure	1.003793955	-0.159000009	7/18/2016 11:35
Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-6D Slug In
# Records	223

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	9.506	10.63
Maximum	9.646	11.06
Mean	9.541	11
Variance	0.0001	0.008
Std Deviation	0.0099	0.091

Measured DTW (ft btoc) = 21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 11:10:52	9.538	11	22.00	21.64
2	8/3/2016 11:10:53	9.539	11	22.00	21.64
3	8/3/2016 11:10:54	9.646	11	22.25	21.39
4	8/3/2016 11:10:55	9.63	11	22.21	21.43
5	8/3/2016 11:10:56	9.554	11	22.04	21.60
6	8/3/2016 11:10:57	9.506	11	21.93	21.71
7	8/3/2016 11:10:58	9.515	11	21.95	21.69
8	8/3/2016 11:10:59	9.546	11	22.02	21.62
9	8/3/2016 11:11:00	9.562	11	22.06	21.58
10	8/3/2016 11:11:01	9.555	11.06	22.04	21.60
11	8/3/2016 11:11:02	9.538	11.06	22.00	21.64
12	8/3/2016 11:11:03	9.531	11.06	21.98	21.66
13	8/3/2016 11:11:04	9.536	11.06	22.00	21.64
14	8/3/2016 11:11:05	9.545	11.06	22.02	21.62
15	8/3/2016 11:11:06	9.548	11.06	22.02	21.62
16	8/3/2016 11:11:07	9.544	11.06	22.01	21.63
17	8/3/2016 11:11:08	9.539	11.06	22.00	21.64
18	8/3/2016 11:11:09	9.539	11.06	22.00	21.64
19	8/3/2016 11:11:10	9.54	11.06	22.01	21.63
20	8/3/2016 11:11:11	9.542	11.06	22.01	21.63
21	8/3/2016 11:11:12	9.544	11.06	22.01	21.63
22	8/3/2016 11:11:13	9.542	11.06	22.01	21.63
23	8/3/2016 11:11:14	9.541	11.06	22.01	21.63
24	8/3/2016 11:11:15	9.541	11.06	22.01	21.63
25	8/3/2016 11:11:16	9.541	11.06	22.01	21.63
26	8/3/2016 11:11:17	9.542	11.06	22.01	21.63
27	8/3/2016 11:11:18	9.542	11.06	22.01	21.63
28	8/3/2016 11:11:19	9.541	11.06	22.01	21.63
29	8/3/2016 11:11:20	9.541	11.06	22.01	21.63
30	8/3/2016 11:11:21	9.541	11.06	22.01	21.63
31	8/3/2016 11:11:22	9.542	11.06	22.01	21.63
32	8/3/2016 11:11:23	9.541	11.06	22.01	21.63
33	8/3/2016 11:11:24	9.541	11.06	22.01	21.63
34	8/3/2016 11:11:25	9.542	11.06	22.01	21.63
35	8/3/2016 11:11:26	9.541	11.06	22.01	21.63
36	8/3/2016 11:11:27	9.541	11.06	22.01	21.63
37	8/3/2016 11:11:28	9.541	11.06	22.01	21.63
38	8/3/2016 11:11:29	9.541	11.06	22.01	21.63
39	8/3/2016 11:11:30	9.541	11.06	22.01	21.63
40	8/3/2016 11:11:31	9.541	11.06	22.01	21.63
41	8/3/2016 11:11:32	9.541	11.06	22.01	21.63
42	8/3/2016 11:11:33	9.542	11.06	22.01	21.63
43	8/3/2016 11:11:34	9.541	11.06	22.01	21.63
44	8/3/2016 11:11:35	9.541	11.06	22.01	21.63
45	8/3/2016 11:11:36	9.541	11.06	22.01	21.63
46	8/3/2016 11:11:37	9.541	11.06	22.01	21.63
47	8/3/2016 11:11:38	9.541	11.06	22.01	21.63

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 11:11:39	9.541	11.06	22.01	21.63
49	8/3/2016 11:11:40	9.541	11.06	22.01	21.63
50	8/3/2016 11:11:41	9.54	11.06	22.01	21.63
51	8/3/2016 11:11:42	9.541	11.06	22.01	21.63
52	8/3/2016 11:11:43	9.541	11.06	22.01	21.63
53	8/3/2016 11:11:44	9.541	11.06	22.01	21.63
54	8/3/2016 11:11:45	9.541	11.06	22.01	21.63
55	8/3/2016 11:11:46	9.541	11.06	22.01	21.63
56	8/3/2016 11:11:47	9.541	11.06	22.01	21.63
57	8/3/2016 11:11:48	9.541	11.06	22.01	21.63
58	8/3/2016 11:11:49	9.541	11.06	22.01	21.63
59	8/3/2016 11:11:50	9.541	11.06	22.01	21.63
60	8/3/2016 11:11:51	9.541	11.06	22.01	21.63
61	8/3/2016 11:11:52	9.541	11.06	22.01	21.63
62	8/3/2016 11:11:53	9.541	11.06	22.01	21.63
63	8/3/2016 11:11:54	9.541	11.06	22.01	21.63
64	8/3/2016 11:11:55	9.54	11.06	22.01	21.63
65	8/3/2016 11:11:56	9.541	11.06	22.01	21.63
66	8/3/2016 11:11:57	9.541	11.06	22.01	21.63
67	8/3/2016 11:11:58	9.54	11.06	22.01	21.63
68	8/3/2016 11:11:59	9.541	11.06	22.01	21.63
69	8/3/2016 11:12:00	9.54	11.06	22.01	21.63
70	8/3/2016 11:12:01	9.541	11.06	22.01	21.63
71	8/3/2016 11:12:02	9.541	11.06	22.01	21.63
72	8/3/2016 11:12:03	9.54	11.06	22.01	21.63
73	8/3/2016 11:12:04	9.54	11	22.01	21.63
74	8/3/2016 11:12:05	9.54	11.06	22.01	21.63
75	8/3/2016 11:12:06	9.541	11.06	22.01	21.63
76	8/3/2016 11:12:07	9.541	11.06	22.01	21.63
77	8/3/2016 11:12:08	9.541	11.06	22.01	21.63
78	8/3/2016 11:12:09	9.541	11	22.01	21.63
79	8/3/2016 11:12:10	9.541	11.06	22.01	21.63
80	8/3/2016 11:12:11	9.541	11.06	22.01	21.63
81	8/3/2016 11:12:12	9.541	11.06	22.01	21.63
82	8/3/2016 11:12:13	9.541	11.06	22.01	21.63
83	8/3/2016 11:12:14	9.54	11.06	22.01	21.63
84	8/3/2016 11:12:15	9.54	11.06	22.01	21.63
85	8/3/2016 11:12:16	9.541	11.06	22.01	21.63
86	8/3/2016 11:12:17	9.541	11.06	22.01	21.63
87	8/3/2016 11:12:18	9.541	11.06	22.01	21.63
88	8/3/2016 11:12:19	9.54	11.06	22.01	21.63
89	8/3/2016 11:12:20	9.541	11.06	22.01	21.63
90	8/3/2016 11:12:21	9.541	11.06	22.01	21.63
91	8/3/2016 11:12:22	9.54	11.06	22.01	21.63
92	8/3/2016 11:12:23	9.54	11	22.01	21.63
93	8/3/2016 11:12:24	9.54	11.06	22.01	21.63
94	8/3/2016 11:12:25	9.541	11.06	22.01	21.63
95	8/3/2016 11:12:26	9.54	11.06	22.01	21.63
96	8/3/2016 11:12:27	9.541	11	22.01	21.63
97	8/3/2016 11:12:28	9.541	11.06	22.01	21.63
98	8/3/2016 11:12:29	9.541	11.06	22.01	21.63
99	8/3/2016 11:12:30	9.541	11.06	22.01	21.63
100	8/3/2016 11:12:31	9.541	11.06	22.01	21.63
101	8/3/2016 11:12:32	9.541	11	22.01	21.63
102	8/3/2016 11:12:33	9.541	11	22.01	21.63
103	8/3/2016 11:12:34	9.54	11	22.01	21.63
104	8/3/2016 11:12:35	9.541	11	22.01	21.63
105	8/3/2016 11:12:36	9.541	11	22.01	21.63
106	8/3/2016 11:12:37	9.541	11	22.01	21.63
107	8/3/2016 11:12:38	9.54	11	22.01	21.63
108	8/3/2016 11:12:39	9.54	11	22.01	21.63
109	8/3/2016 11:12:40	9.541	11	22.01	21.63
110	8/3/2016 11:12:41	9.541	11	22.01	21.63
111	8/3/2016 11:12:42	9.541	11	22.01	21.63
112	8/3/2016 11:12:43	9.541	11	22.01	21.63
113	8/3/2016 11:12:44	9.541	11	22.01	21.63
114	8/3/2016 11:12:45	9.54	11	22.01	21.63
115	8/3/2016 11:12:46	9.54	11	22.01	21.63
116	8/3/2016 11:12:47	9.541	11	22.01	21.63
117	8/3/2016 11:12:48	9.54	11	22.01	21.63
118	8/3/2016 11:12:49	9.54	11	22.01	21.63
119	8/3/2016 11:12:50	9.541	11.06	22.01	21.63

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 11:12:51	9.541	11	22.01	21.63
121	8/3/2016 11:12:52	9.54	11	22.01	21.63
122	8/3/2016 11:12:53	9.54	11	22.01	21.63
123	8/3/2016 11:12:54	9.541	11	22.01	21.63
124	8/3/2016 11:12:55	9.541	11	22.01	21.63
125	8/3/2016 11:12:56	9.54	11	22.01	21.63
126	8/3/2016 11:12:57	9.54	11	22.01	21.63
127	8/3/2016 11:12:58	9.54	11	22.01	21.63
128	8/3/2016 11:12:59	9.541	11	22.01	21.63
129	8/3/2016 11:13:00	9.54	11	22.01	21.63
130	8/3/2016 11:13:01	9.54	11	22.01	21.63
131	8/3/2016 11:13:02	9.541	11	22.01	21.63
132	8/3/2016 11:13:03	9.54	11	22.01	21.63
133	8/3/2016 11:13:04	9.541	11	22.01	21.63
134	8/3/2016 11:13:05	9.54	11	22.01	21.63
135	8/3/2016 11:13:06	9.541	11	22.01	21.63
136	8/3/2016 11:13:07	9.54	11	22.01	21.63
137	8/3/2016 11:13:08	9.54	11	22.01	21.63
138	8/3/2016 11:13:09	9.54	11	22.01	21.63
139	8/3/2016 11:13:10	9.54	11	22.01	21.63
140	8/3/2016 11:13:11	9.54	11	22.01	21.63
141	8/3/2016 11:13:12	9.54	11	22.01	21.63
142	8/3/2016 11:13:13	9.54	11	22.01	21.63
143	8/3/2016 11:13:14	9.54	11	22.01	21.63
144	8/3/2016 11:13:15	9.541	11	22.01	21.63
145	8/3/2016 11:13:16	9.54	11	22.01	21.63
146	8/3/2016 11:13:17	9.54	11	22.01	21.63
147	8/3/2016 11:13:18	9.54	11	22.01	21.63
148	8/3/2016 11:13:19	9.54	11	22.01	21.63
149	8/3/2016 11:13:20	9.54	11	22.01	21.63
150	8/3/2016 11:13:21	9.54	11	22.01	21.63
151	8/3/2016 11:13:22	9.539	11	22.00	21.64
152	8/3/2016 11:13:23	9.54	11	22.01	21.63
153	8/3/2016 11:13:24	9.54	11	22.01	21.63
154	8/3/2016 11:13:25	9.54	11	22.01	21.63
155	8/3/2016 11:13:26	9.54	11	22.01	21.63
156	8/3/2016 11:13:27	9.54	11	22.01	21.63
157	8/3/2016 11:13:28	9.54	11	22.01	21.63
158	8/3/2016 11:13:29	9.54	11	22.01	21.63
159	8/3/2016 11:13:30	9.54	11	22.01	21.63
160	8/3/2016 11:13:31	9.54	11	22.01	21.63
161	8/3/2016 11:13:32	9.54	11	22.01	21.63
162	8/3/2016 11:13:33	9.54	11	22.01	21.63
163	8/3/2016 11:13:34	9.54	11	22.01	21.63
164	8/3/2016 11:13:35	9.54	11	22.01	21.63
165	8/3/2016 11:13:36	9.54	11	22.01	21.63
166	8/3/2016 11:13:37	9.54	11	22.01	21.63
167	8/3/2016 11:13:38	9.541	11	22.01	21.63
168	8/3/2016 11:13:39	9.54	11	22.01	21.63
169	8/3/2016 11:13:40	9.541	11	22.01	21.63
170	8/3/2016 11:13:41	9.54	11	22.01	21.63
171	8/3/2016 11:13:42	9.54	11	22.01	21.63
172	8/3/2016 11:13:43	9.54	11	22.01	21.63
173	8/3/2016 11:13:44	9.54	11	22.01	21.63
174	8/3/2016 11:13:45	9.54	11	22.01	21.63
175	8/3/2016 11:13:46	9.54	11	22.01	21.63
176	8/3/2016 11:13:47	9.54	11	22.01	21.63
177	8/3/2016 11:13:48	9.54	11	22.01	21.63
178	8/3/2016 11:13:49	9.541	11	22.01	21.63
179	8/3/2016 11:13:50	9.54	11	22.01	21.63
180	8/3/2016 11:13:51	9.54	11	22.01	21.63
181	8/3/2016 11:13:52	9.54	11	22.01	21.63
182	8/3/2016 11:13:53	9.54	11	22.01	21.63
183	8/3/2016 11:13:54	9.54	11	22.01	21.63
184	8/3/2016 11:13:55	9.54	11	22.01	21.63
185	8/3/2016 11:13:56	9.54	11	22.01	21.63
186	8/3/2016 11:13:57	9.54	11	22.01	21.63
187	8/3/2016 11:13:58	9.54	11	22.01	21.63
188	8/3/2016 11:13:59	9.54	11	22.01	21.63
189	8/3/2016 11:14:00	9.54	11	22.01	21.63
190	8/3/2016 11:14:01	9.541	11	22.01	21.63
191	8/3/2016 11:14:02	9.54	11	22.01	21.63

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 11:14:03	9.54	11	22.01	21.63
193	8/3/2016 11:14:04	9.54	11	22.01	21.63
194	8/3/2016 11:14:05	9.54	11	22.01	21.63
195	8/3/2016 11:14:06	9.54	11	22.01	21.63
196	8/3/2016 11:14:07	9.54	11	22.01	21.63
197	8/3/2016 11:14:08	9.54	11	22.01	21.63
198	8/3/2016 11:14:09	9.54	11	22.01	21.63
199	8/3/2016 11:14:10	9.54	11	22.01	21.63
200	8/3/2016 11:14:11	9.54	11	22.01	21.63
201	8/3/2016 11:14:21	9.54	10.81	22.01	21.63
202	8/3/2016 11:14:31	9.54	10.81	22.01	21.63
203	8/3/2016 11:14:41	9.54	10.94	22.01	21.63
204	8/3/2016 11:14:51	9.54	10.94	22.01	21.63
205	8/3/2016 11:15:01	9.54	10.94	22.01	21.63
206	8/3/2016 11:15:11	9.54	10.94	22.01	21.63
207	8/3/2016 11:15:21	9.54	10.94	22.01	21.63
208	8/3/2016 11:15:31	9.54	10.94	22.01	21.63
209	8/3/2016 11:15:41	9.541	10.94	22.01	21.63
210	8/3/2016 11:15:51	9.541	10.88	22.01	21.63
211	8/3/2016 11:16:01	9.541	10.81	22.01	21.63
212	8/3/2016 11:16:11	9.541	10.75	22.01	21.63
213	8/3/2016 11:16:21	9.541	10.69	22.01	21.63
214	8/3/2016 11:16:31	9.54	10.69	22.01	21.63
215	8/3/2016 11:16:41	9.54	10.69	22.01	21.63
216	8/3/2016 11:16:51	9.54	10.69	22.01	21.63
217	8/3/2016 11:17:01	9.54	10.69	22.01	21.63
218	8/3/2016 11:17:11	9.54	10.63	22.01	21.63
219	8/3/2016 11:17:21	9.54	10.63	22.01	21.63
220	8/3/2016 11:17:31	9.539	10.63	22.00	21.64
221	8/3/2016 11:17:41	9.54	10.63	22.01	21.63
222	8/3/2016 11:17:51	9.539	10.63	22.00	21.64
223	8/3/2016 11:18:01	9.54	10.63	22.01	21.63

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-6D
Test: Slug Out

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-6D Slug Out
# Records	201

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	9.429	10.69
Maximum	9.61	10.88
Mean	9.541	10.83
Variance	0.0002	0.002
Std Deviation	0.0124	0.048

Measured DTW (ft btoc) = 21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 11:18:08	9.54	10.69	22.01	21.64
2	8/3/2016 11:18:09	9.54	10.69	22.01	21.64
3	8/3/2016 11:18:10	9.54	10.69	22.01	21.64
4	8/3/2016 11:18:11	9.54	10.69	22.01	21.64
5	8/3/2016 11:18:12	9.449	10.75	21.80	21.43
6	8/3/2016 11:18:13	9.429	10.75	21.75	21.38
7	8/3/2016 11:18:14	9.531	10.75	21.98	21.61
8	8/3/2016 11:18:15	9.61	10.75	22.17	21.80
9	8/3/2016 11:18:16	9.586	10.75	22.11	21.74
10	8/3/2016 11:18:17	9.523	10.75	21.97	21.60
11	8/3/2016 11:18:18	9.503	10.75	21.92	21.55
12	8/3/2016 11:18:19	9.533	10.75	21.99	21.62
13	8/3/2016 11:18:20	9.562	10.75	22.06	21.69
14	8/3/2016 11:18:21	9.558	10.75	22.05	21.68
15	8/3/2016 11:18:22	9.535	10.75	21.99	21.62
16	8/3/2016 11:18:23	9.527	10.75	21.98	21.61
17	8/3/2016 11:18:24	9.536	10.75	22.00	21.63
18	8/3/2016 11:18:25	9.547	10.75	22.02	21.65
19	8/3/2016 11:18:26	9.547	10.75	22.02	21.65
20	8/3/2016 11:18:27	9.541	10.75	22.01	21.64
21	8/3/2016 11:18:28	9.537	10.75	22.00	21.63
22	8/3/2016 11:18:29	9.538	10.75	22.00	21.63
23	8/3/2016 11:18:30	9.543	10.75	22.01	21.64
24	8/3/2016 11:18:31	9.544	10.75	22.01	21.64
25	8/3/2016 11:18:32	9.541	10.75	22.01	21.64
26	8/3/2016 11:18:33	9.539	10.75	22.00	21.63
27	8/3/2016 11:18:34	9.541	10.81	22.01	21.64
28	8/3/2016 11:18:35	9.542	10.81	22.01	21.64
29	8/3/2016 11:18:36	9.543	10.75	22.01	21.64
30	8/3/2016 11:18:37	9.542	10.81	22.01	21.64
31	8/3/2016 11:18:38	9.541	10.81	22.01	21.64
32	8/3/2016 11:18:39	9.542	10.81	22.01	21.64
33	8/3/2016 11:18:40	9.543	10.81	22.01	21.64
34	8/3/2016 11:18:41	9.544	10.81	22.01	21.64
35	8/3/2016 11:18:42	9.545	10.81	22.02	21.65
36	8/3/2016 11:18:43	9.545	10.81	22.02	21.65
37	8/3/2016 11:18:44	9.543	10.81	22.01	21.64
38	8/3/2016 11:18:45	9.544	10.81	22.01	21.64
39	8/3/2016 11:18:46	9.543	10.81	22.01	21.64
40	8/3/2016 11:18:47	9.544	10.81	22.01	21.64
41	8/3/2016 11:18:48	9.543	10.81	22.01	21.64
42	8/3/2016 11:18:49	9.543	10.81	22.01	21.64
43	8/3/2016 11:18:50	9.543	10.81	22.01	21.64
44	8/3/2016 11:18:51	9.543	10.81	22.01	21.64
45	8/3/2016 11:18:52	9.543	10.81	22.01	21.64
46	8/3/2016 11:18:53	9.544	10.81	22.01	21.64
47	8/3/2016 11:18:54	9.543	10.81	22.01	21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 11:18:55	9.543	10.81	22.01	21.64
49	8/3/2016 11:18:56	9.543	10.81	22.01	21.64
50	8/3/2016 11:18:57	9.543	10.81	22.01	21.64
51	8/3/2016 11:18:58	9.543	10.81	22.01	21.64
52	8/3/2016 11:18:59	9.543	10.81	22.01	21.64
53	8/3/2016 11:19:00	9.543	10.81	22.01	21.64
54	8/3/2016 11:19:01	9.543	10.81	22.01	21.64
55	8/3/2016 11:19:02	9.543	10.81	22.01	21.64
56	8/3/2016 11:19:03	9.543	10.81	22.01	21.64
57	8/3/2016 11:19:04	9.543	10.81	22.01	21.64
58	8/3/2016 11:19:05	9.543	10.81	22.01	21.64
59	8/3/2016 11:19:06	9.543	10.81	22.01	21.64
60	8/3/2016 11:19:07	9.543	10.81	22.01	21.64
61	8/3/2016 11:19:08	9.543	10.81	22.01	21.64
62	8/3/2016 11:19:09	9.543	10.81	22.01	21.64
63	8/3/2016 11:19:10	9.543	10.81	22.01	21.64
64	8/3/2016 11:19:11	9.542	10.81	22.01	21.64
65	8/3/2016 11:19:12	9.542	10.81	22.01	21.64
66	8/3/2016 11:19:13	9.542	10.81	22.01	21.64
67	8/3/2016 11:19:14	9.543	10.81	22.01	21.64
68	8/3/2016 11:19:15	9.542	10.81	22.01	21.64
69	8/3/2016 11:19:16	9.543	10.81	22.01	21.64
70	8/3/2016 11:19:17	9.542	10.81	22.01	21.64
71	8/3/2016 11:19:18	9.542	10.81	22.01	21.64
72	8/3/2016 11:19:19	9.542	10.81	22.01	21.64
73	8/3/2016 11:19:20	9.542	10.81	22.01	21.64
74	8/3/2016 11:19:21	9.543	10.81	22.01	21.64
75	8/3/2016 11:19:22	9.543	10.81	22.01	21.64
76	8/3/2016 11:19:23	9.542	10.81	22.01	21.64
77	8/3/2016 11:19:24	9.542	10.81	22.01	21.64
78	8/3/2016 11:19:25	9.542	10.81	22.01	21.64
79	8/3/2016 11:19:26	9.542	10.81	22.01	21.64
80	8/3/2016 11:19:27	9.542	10.81	22.01	21.64
81	8/3/2016 11:19:28	9.541	10.81	22.01	21.64
82	8/3/2016 11:19:29	9.542	10.81	22.01	21.64
83	8/3/2016 11:19:30	9.542	10.81	22.01	21.64
84	8/3/2016 11:19:31	9.542	10.88	22.01	21.64
85	8/3/2016 11:19:32	9.542	10.88	22.01	21.64
86	8/3/2016 11:19:33	9.542	10.81	22.01	21.64
87	8/3/2016 11:19:34	9.542	10.88	22.01	21.64
88	8/3/2016 11:19:35	9.542	10.81	22.01	21.64
89	8/3/2016 11:19:36	9.542	10.88	22.01	21.64
90	8/3/2016 11:19:37	9.542	10.81	22.01	21.64
91	8/3/2016 11:19:38	9.542	10.81	22.01	21.64
92	8/3/2016 11:19:39	9.542	10.88	22.01	21.64
93	8/3/2016 11:19:40	9.542	10.81	22.01	21.64
94	8/3/2016 11:19:41	9.542	10.88	22.01	21.64
95	8/3/2016 11:19:42	9.542	10.81	22.01	21.64
96	8/3/2016 11:19:43	9.542	10.81	22.01	21.64
97	8/3/2016 11:19:44	9.542	10.88	22.01	21.64
98	8/3/2016 11:19:45	9.542	10.81	22.01	21.64
99	8/3/2016 11:19:46	9.541	10.88	22.01	21.64
100	8/3/2016 11:19:47	9.542	10.88	22.01	21.64
101	8/3/2016 11:19:48	9.542	10.88	22.01	21.64
102	8/3/2016 11:19:49	9.542	10.81	22.01	21.64
103	8/3/2016 11:19:50	9.542	10.88	22.01	21.64
104	8/3/2016 11:19:51	9.542	10.81	22.01	21.64
105	8/3/2016 11:19:52	9.542	10.88	22.01	21.64
106	8/3/2016 11:19:53	9.542	10.88	22.01	21.64
107	8/3/2016 11:19:54	9.542	10.81	22.01	21.64
108	8/3/2016 11:19:55	9.542	10.88	22.01	21.64
109	8/3/2016 11:19:56	9.542	10.88	22.01	21.64
110	8/3/2016 11:19:57	9.541	10.81	22.01	21.64
111	8/3/2016 11:19:58	9.542	10.81	22.01	21.64
112	8/3/2016 11:19:59	9.542	10.81	22.01	21.64
113	8/3/2016 11:20:00	9.542	10.88	22.01	21.64
114	8/3/2016 11:20:01	9.542	10.88	22.01	21.64
115	8/3/2016 11:20:02	9.541	10.88	22.01	21.64
116	8/3/2016 11:20:03	9.541	10.88	22.01	21.64
117	8/3/2016 11:20:04	9.542	10.88	22.01	21.64
118	8/3/2016 11:20:05	9.542	10.88	22.01	21.64
119	8/3/2016 11:20:06	9.542	10.88	22.01	21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 11:20:07	9.542	10.88	22.01	21.64
121	8/3/2016 11:20:08	9.542	10.81	22.01	21.64
122	8/3/2016 11:20:09	9.541	10.88	22.01	21.64
123	8/3/2016 11:20:10	9.542	10.88	22.01	21.64
124	8/3/2016 11:20:11	9.542	10.88	22.01	21.64
125	8/3/2016 11:20:12	9.542	10.88	22.01	21.64
126	8/3/2016 11:20:13	9.542	10.88	22.01	21.64
127	8/3/2016 11:20:14	9.542	10.88	22.01	21.64
128	8/3/2016 11:20:15	9.542	10.88	22.01	21.64
129	8/3/2016 11:20:16	9.542	10.88	22.01	21.64
130	8/3/2016 11:20:17	9.542	10.88	22.01	21.64
131	8/3/2016 11:20:18	9.542	10.88	22.01	21.64
132	8/3/2016 11:20:19	9.542	10.81	22.01	21.64
133	8/3/2016 11:20:20	9.542	10.88	22.01	21.64
134	8/3/2016 11:20:21	9.541	10.88	22.01	21.64
135	8/3/2016 11:20:22	9.541	10.81	22.01	21.64
136	8/3/2016 11:20:23	9.542	10.88	22.01	21.64
137	8/3/2016 11:20:24	9.542	10.88	22.01	21.64
138	8/3/2016 11:20:25	9.542	10.88	22.01	21.64
139	8/3/2016 11:20:26	9.542	10.88	22.01	21.64
140	8/3/2016 11:20:27	9.542	10.88	22.01	21.64
141	8/3/2016 11:20:28	9.541	10.88	22.01	21.64
142	8/3/2016 11:20:29	9.541	10.88	22.01	21.64
143	8/3/2016 11:20:30	9.542	10.88	22.01	21.64
144	8/3/2016 11:20:31	9.541	10.88	22.01	21.64
145	8/3/2016 11:20:32	9.541	10.88	22.01	21.64
146	8/3/2016 11:20:33	9.541	10.88	22.01	21.64
147	8/3/2016 11:20:34	9.542	10.88	22.01	21.64
148	8/3/2016 11:20:35	9.542	10.81	22.01	21.64
149	8/3/2016 11:20:36	9.542	10.81	22.01	21.64
150	8/3/2016 11:20:37	9.542	10.88	22.01	21.64
151	8/3/2016 11:20:38	9.542	10.88	22.01	21.64
152	8/3/2016 11:20:39	9.542	10.88	22.01	21.64
153	8/3/2016 11:20:40	9.542	10.88	22.01	21.64
154	8/3/2016 11:20:41	9.542	10.88	22.01	21.64
155	8/3/2016 11:20:42	9.542	10.88	22.01	21.64
156	8/3/2016 11:20:43	9.542	10.88	22.01	21.64
157	8/3/2016 11:20:44	9.542	10.81	22.01	21.64
158	8/3/2016 11:20:45	9.542	10.88	22.01	21.64
159	8/3/2016 11:20:46	9.542	10.88	22.01	21.64
160	8/3/2016 11:20:47	9.542	10.88	22.01	21.64
161	8/3/2016 11:20:48	9.542	10.81	22.01	21.64
162	8/3/2016 11:20:49	9.542	10.88	22.01	21.64
163	8/3/2016 11:20:50	9.542	10.88	22.01	21.64
164	8/3/2016 11:20:51	9.542	10.88	22.01	21.64
165	8/3/2016 11:20:52	9.542	10.88	22.01	21.64
166	8/3/2016 11:20:53	9.542	10.88	22.01	21.64
167	8/3/2016 11:20:54	9.542	10.81	22.01	21.64
168	8/3/2016 11:20:55	9.542	10.88	22.01	21.64
169	8/3/2016 11:20:56	9.542	10.81	22.01	21.64
170	8/3/2016 11:20:57	9.542	10.88	22.01	21.64
171	8/3/2016 11:20:58	9.542	10.88	22.01	21.64
172	8/3/2016 11:20:59	9.542	10.88	22.01	21.64
173	8/3/2016 11:21:00	9.542	10.88	22.01	21.64
174	8/3/2016 11:21:01	9.542	10.81	22.01	21.64
175	8/3/2016 11:21:02	9.542	10.88	22.01	21.64
176	8/3/2016 11:21:03	9.542	10.88	22.01	21.64
177	8/3/2016 11:21:04	9.542	10.88	22.01	21.64
178	8/3/2016 11:21:05	9.541	10.81	22.01	21.64
179	8/3/2016 11:21:06	9.542	10.81	22.01	21.64
180	8/3/2016 11:21:07	9.542	10.81	22.01	21.64
181	8/3/2016 11:21:08	9.542	10.81	22.01	21.64
182	8/3/2016 11:21:09	9.542	10.81	22.01	21.64
183	8/3/2016 11:21:10	9.541	10.81	22.01	21.64
184	8/3/2016 11:21:11	9.542	10.81	22.01	21.64
185	8/3/2016 11:21:12	9.542	10.81	22.01	21.64
186	8/3/2016 11:21:13	9.541	10.88	22.01	21.64
187	8/3/2016 11:21:14	9.541	10.88	22.01	21.64
188	8/3/2016 11:21:15	9.542	10.88	22.01	21.64
189	8/3/2016 11:21:16	9.542	10.88	22.01	21.64
190	8/3/2016 11:21:17	9.541	10.88	22.01	21.64
191	8/3/2016 11:21:18	9.541	10.88	22.01	21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 11:21:19	9.542	10.88	22.01	21.64
193	8/3/2016 11:21:20	9.541	10.88	22.01	21.64
194	8/3/2016 11:21:21	9.542	10.81	22.01	21.64
195	8/3/2016 11:21:22	9.542	10.81	22.01	21.64
196	8/3/2016 11:21:23	9.542	10.88	22.01	21.64
197	8/3/2016 11:21:24	9.542	10.88	22.01	21.64
198	8/3/2016 11:21:25	9.542	10.81	22.01	21.64
199	8/3/2016 11:21:26	9.542	10.81	22.01	21.64
200	8/3/2016 11:21:27	9.542	10.88	22.01	21.64
201	8/3/2016 11:21:37	9.542	10.88	22.01	21.64

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-6D
Test: Slug In 2

Advanced Calibration Data	Cal Date	m2	m1	m0	b3	b2	b1	b0
Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data	Slope	Offset	Cal Date
Pressure	1.003793955	-0.159000009	7/18/2016 11:35
Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-6D Slug In 2
# Records	143

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	9.502	10.5
Maximum	9.651	10.75
Mean	9.542	10.68
Variance	0.0001	0.004
Std Deviation	0.0122	0.061

Measured DTW (ft btoc) = 21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 11:27:33	9.539	10.5	22.00	21.64
2	8/3/2016 11:27:34	9.538	10.5	22.00	21.64
3	8/3/2016 11:27:35	9.539	10.56	22.00	21.64
4	8/3/2016 11:27:36	9.543	10.56	22.01	21.63
5	8/3/2016 11:27:37	9.651	10.56	22.26	21.38
6	8/3/2016 11:27:38	9.62	10.56	22.19	21.45
7	8/3/2016 11:27:39	9.54	10.56	22.01	21.63
8	8/3/2016 11:27:40	9.502	10.56	21.92	21.72
9	8/3/2016 11:27:41	9.517	10.56	21.95	21.69
10	8/3/2016 11:27:42	9.548	10.56	22.02	21.62
11	8/3/2016 11:27:43	9.561	10.56	22.05	21.59
12	8/3/2016 11:27:44	9.55	10.56	22.03	21.61
13	8/3/2016 11:27:45	9.535	10.56	21.99	21.65
14	8/3/2016 11:27:46	9.53	10.56	21.98	21.66
15	8/3/2016 11:27:47	9.536	10.63	22.00	21.64
16	8/3/2016 11:27:48	9.544	10.56	22.01	21.63
17	8/3/2016 11:27:49	9.546	10.63	22.02	21.62
18	8/3/2016 11:27:50	9.543	10.63	22.01	21.63
19	8/3/2016 11:27:51	9.538	10.63	22.00	21.64
20	8/3/2016 11:27:52	9.537	10.63	22.00	21.64
21	8/3/2016 11:27:53	9.54	10.63	22.01	21.63
22	8/3/2016 11:27:54	9.542	10.63	22.01	21.63
23	8/3/2016 11:27:55	9.542	10.63	22.01	21.63
24	8/3/2016 11:27:56	9.54	10.63	22.01	21.63
25	8/3/2016 11:27:57	9.539	10.63	22.00	21.64
26	8/3/2016 11:27:58	9.54	10.63	22.01	21.63
27	8/3/2016 11:27:59	9.54	10.63	22.01	21.63
28	8/3/2016 11:28:00	9.541	10.63	22.01	21.63
29	8/3/2016 11:28:01	9.541	10.63	22.01	21.63
30	8/3/2016 11:28:02	9.54	10.63	22.01	21.63
31	8/3/2016 11:28:03	9.54	10.63	22.01	21.63
32	8/3/2016 11:28:04	9.54	10.63	22.01	21.63
33	8/3/2016 11:28:05	9.54	10.63	22.01	21.63
34	8/3/2016 11:28:06	9.54	10.63	22.01	21.63
35	8/3/2016 11:28:07	9.54	10.63	22.01	21.63
36	8/3/2016 11:28:08	9.54	10.63	22.01	21.63
37	8/3/2016 11:28:09	9.54	10.63	22.01	21.63
38	8/3/2016 11:28:10	9.54	10.69	22.01	21.63
39	8/3/2016 11:28:11	9.54	10.63	22.01	21.63
40	8/3/2016 11:28:12	9.54	10.63	22.01	21.63
41	8/3/2016 11:28:13	9.54	10.63	22.01	21.63
42	8/3/2016 11:28:14	9.54	10.63	22.01	21.63
43	8/3/2016 11:28:15	9.54	10.69	22.01	21.63
44	8/3/2016 11:28:16	9.54	10.63	22.01	21.63
45	8/3/2016 11:28:17	9.54	10.69	22.01	21.63
46	8/3/2016 11:28:18	9.54	10.63	22.01	21.63
47	8/3/2016 11:28:19	9.541	10.63	22.01	21.63

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 11:28:20	9.541	10.69	22.01	21.63
49	8/3/2016 11:28:21	9.54	10.63	22.01	21.63
50	8/3/2016 11:28:22	9.54	10.69	22.01	21.63
51	8/3/2016 11:28:23	9.541	10.69	22.01	21.63
52	8/3/2016 11:28:24	9.541	10.69	22.01	21.63
53	8/3/2016 11:28:25	9.54	10.63	22.01	21.63
54	8/3/2016 11:28:26	9.54	10.69	22.01	21.63
55	8/3/2016 11:28:27	9.541	10.63	22.01	21.63
56	8/3/2016 11:28:28	9.541	10.69	22.01	21.63
57	8/3/2016 11:28:29	9.54	10.69	22.01	21.63
58	8/3/2016 11:28:30	9.541	10.69	22.01	21.63
59	8/3/2016 11:28:31	9.54	10.69	22.01	21.63
60	8/3/2016 11:28:32	9.541	10.69	22.01	21.63
61	8/3/2016 11:28:33	9.54	10.69	22.01	21.63
62	8/3/2016 11:28:34	9.54	10.69	22.01	21.63
63	8/3/2016 11:28:35	9.541	10.69	22.01	21.63
64	8/3/2016 11:28:36	9.541	10.69	22.01	21.63
65	8/3/2016 11:28:37	9.54	10.69	22.01	21.63
66	8/3/2016 11:28:38	9.541	10.69	22.01	21.63
67	8/3/2016 11:28:39	9.54	10.69	22.01	21.63
68	8/3/2016 11:28:40	9.54	10.69	22.01	21.63
69	8/3/2016 11:28:41	9.54	10.69	22.01	21.63
70	8/3/2016 11:28:42	9.54	10.69	22.01	21.63
71	8/3/2016 11:28:43	9.541	10.69	22.01	21.63
72	8/3/2016 11:28:44	9.541	10.69	22.01	21.63
73	8/3/2016 11:28:45	9.54	10.69	22.01	21.63
74	8/3/2016 11:28:46	9.54	10.69	22.01	21.63
75	8/3/2016 11:28:47	9.54	10.69	22.01	21.63
76	8/3/2016 11:28:48	9.541	10.69	22.01	21.63
77	8/3/2016 11:28:49	9.54	10.69	22.01	21.63
78	8/3/2016 11:28:50	9.54	10.69	22.01	21.63
79	8/3/2016 11:28:51	9.54	10.69	22.01	21.63
80	8/3/2016 11:28:52	9.54	10.69	22.01	21.63
81	8/3/2016 11:28:53	9.541	10.69	22.01	21.63
82	8/3/2016 11:28:54	9.541	10.69	22.01	21.63
83	8/3/2016 11:28:55	9.541	10.69	22.01	21.63
84	8/3/2016 11:28:56	9.541	10.69	22.01	21.63
85	8/3/2016 11:28:57	9.541	10.69	22.01	21.63
86	8/3/2016 11:28:58	9.541	10.69	22.01	21.63
87	8/3/2016 11:28:59	9.541	10.69	22.01	21.63
88	8/3/2016 11:29:00	9.54	10.69	22.01	21.63
89	8/3/2016 11:29:01	9.541	10.69	22.01	21.63
90	8/3/2016 11:29:02	9.541	10.75	22.01	21.63
91	8/3/2016 11:29:03	9.541	10.69	22.01	21.63
92	8/3/2016 11:29:04	9.541	10.69	22.01	21.63
93	8/3/2016 11:29:05	9.54	10.69	22.01	21.63
94	8/3/2016 11:29:06	9.541	10.69	22.01	21.63
95	8/3/2016 11:29:07	9.541	10.69	22.01	21.63
96	8/3/2016 11:29:08	9.541	10.69	22.01	21.63
97	8/3/2016 11:29:09	9.541	10.75	22.01	21.63
98	8/3/2016 11:29:10	9.541	10.75	22.01	21.63
99	8/3/2016 11:29:11	9.541	10.69	22.01	21.63
100	8/3/2016 11:29:12	9.541	10.69	22.01	21.63
101	8/3/2016 11:29:13	9.541	10.75	22.01	21.63
102	8/3/2016 11:29:14	9.541	10.69	22.01	21.63
103	8/3/2016 11:29:15	9.54	10.75	22.01	21.63
104	8/3/2016 11:29:16	9.541	10.75	22.01	21.63
105	8/3/2016 11:29:17	9.541	10.69	22.01	21.63
106	8/3/2016 11:29:18	9.541	10.69	22.01	21.63
107	8/3/2016 11:29:19	9.541	10.69	22.01	21.63
108	8/3/2016 11:29:20	9.541	10.69	22.01	21.63
109	8/3/2016 11:29:21	9.541	10.69	22.01	21.63
110	8/3/2016 11:29:22	9.541	10.75	22.01	21.63
111	8/3/2016 11:29:23	9.541	10.69	22.01	21.63
112	8/3/2016 11:29:24	9.54	10.75	22.01	21.63
113	8/3/2016 11:29:25	9.54	10.69	22.01	21.63
114	8/3/2016 11:29:26	9.541	10.75	22.01	21.63
115	8/3/2016 11:29:27	9.541	10.75	22.01	21.63
116	8/3/2016 11:29:28	9.541	10.75	22.01	21.63
117	8/3/2016 11:29:29	9.541	10.75	22.01	21.63
118	8/3/2016 11:29:30	9.541	10.75	22.01	21.63
119	8/3/2016 11:29:31	9.541	10.75	22.01	21.63

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 11:29:32	9.541	10.75	22.01	21.63
121	8/3/2016 11:29:33	9.541	10.75	22.01	21.63
122	8/3/2016 11:29:34	9.541	10.75	22.01	21.63
123	8/3/2016 11:29:35	9.541	10.75	22.01	21.63
124	8/3/2016 11:29:36	9.541	10.75	22.01	21.63
125	8/3/2016 11:29:37	9.541	10.75	22.01	21.63
126	8/3/2016 11:29:38	9.541	10.75	22.01	21.63
127	8/3/2016 11:29:39	9.541	10.75	22.01	21.63
128	8/3/2016 11:29:40	9.541	10.75	22.01	21.63
129	8/3/2016 11:29:41	9.541	10.75	22.01	21.63
130	8/3/2016 11:29:42	9.541	10.75	22.01	21.63
131	8/3/2016 11:29:43	9.541	10.75	22.01	21.63
132	8/3/2016 11:29:44	9.541	10.75	22.01	21.63
133	8/3/2016 11:29:45	9.541	10.75	22.01	21.63
134	8/3/2016 11:29:46	9.541	10.75	22.01	21.63
135	8/3/2016 11:29:47	9.541	10.75	22.01	21.63
136	8/3/2016 11:29:48	9.54	10.75	22.01	21.63
137	8/3/2016 11:29:49	9.54	10.75	22.01	21.63
138	8/3/2016 11:29:50	9.54	10.75	22.01	21.63
139	8/3/2016 11:29:51	9.541	10.75	22.01	21.63
140	8/3/2016 11:29:52	9.541	10.75	22.01	21.63
141	8/3/2016 11:29:53	9.541	10.75	22.01	21.63
142	8/3/2016 11:29:54	9.541	10.75	22.01	21.63
143	8/3/2016 11:29:55	9.54	10.75	22.01	21.63

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-6D
Test: Slug Out 2

Advanced Calibration Data	Cal Date	m2	m1	m0	b3	b2	b1	b0
Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data	Slope	Offset	Cal Date
Pressure	1.003793955	-0.159000009	7/18/2016 11:35
Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-6D Slug Out 2
# Records	200

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	9.448	10.5
Maximum	9.594	10.75
Mean	9.541	10.72
Variance	0.0001	0.002
Std Deviation	0.0105	0.047

Measured DTW (ft btoc) = 21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 11:31:47	9.541	10.5	22.01	21.64
2	8/3/2016 11:31:48	9.541	10.56	22.01	21.64
3	8/3/2016 11:31:49	9.54	10.56	22.01	21.64
4	8/3/2016 11:31:50	9.54	10.56	22.01	21.64
5	8/3/2016 11:31:51	9.54	10.63	22.01	21.64
6	8/3/2016 11:31:52	9.459	10.63	21.82	21.83
7	8/3/2016 11:31:53	9.448	10.63	21.79	21.86
8	8/3/2016 11:31:54	9.528	10.63	21.98	21.67
9	8/3/2016 11:31:55	9.594	10.63	22.13	21.52
10	8/3/2016 11:31:56	9.578	10.63	22.09	21.56
11	8/3/2016 11:31:57	9.526	10.63	21.97	21.68
12	8/3/2016 11:31:58	9.509	10.63	21.93	21.72
13	8/3/2016 11:31:59	9.533	10.63	21.99	21.66
14	8/3/2016 11:32:00	9.556	10.63	22.04	21.61
15	8/3/2016 11:32:01	9.554	10.63	22.04	21.61
16	8/3/2016 11:32:02	9.536	10.63	22.00	21.65
17	8/3/2016 11:32:03	9.528	10.63	21.98	21.67
18	8/3/2016 11:32:04	9.536	10.63	22.00	21.65
19	8/3/2016 11:32:05	9.545	10.63	22.02	21.63
20	8/3/2016 11:32:06	9.545	10.63	22.02	21.63
21	8/3/2016 11:32:07	9.539	10.63	22.00	21.65
22	8/3/2016 11:32:08	9.536	10.63	22.00	21.65
23	8/3/2016 11:32:09	9.539	10.63	22.00	21.65
24	8/3/2016 11:32:10	9.543	10.63	22.01	21.64
25	8/3/2016 11:32:11	9.543	10.69	22.01	21.64
26	8/3/2016 11:32:12	9.541	10.69	22.01	21.64
27	8/3/2016 11:32:13	9.54	10.69	22.01	21.64
28	8/3/2016 11:32:14	9.54	10.69	22.01	21.64
29	8/3/2016 11:32:15	9.542	10.69	22.01	21.64
30	8/3/2016 11:32:16	9.542	10.69	22.01	21.64
31	8/3/2016 11:32:17	9.542	10.69	22.01	21.64
32	8/3/2016 11:32:18	9.542	10.69	22.01	21.64
33	8/3/2016 11:32:19	9.541	10.69	22.01	21.64
34	8/3/2016 11:32:20	9.542	10.69	22.01	21.64
35	8/3/2016 11:32:21	9.542	10.69	22.01	21.64
36	8/3/2016 11:32:22	9.542	10.69	22.01	21.64
37	8/3/2016 11:32:23	9.542	10.69	22.01	21.64
38	8/3/2016 11:32:24	9.541	10.69	22.01	21.64
39	8/3/2016 11:32:25	9.542	10.69	22.01	21.64
40	8/3/2016 11:32:26	9.542	10.69	22.01	21.64
41	8/3/2016 11:32:27	9.542	10.69	22.01	21.64
42	8/3/2016 11:32:28	9.542	10.69	22.01	21.64
43	8/3/2016 11:32:29	9.542	10.69	22.01	21.64
44	8/3/2016 11:32:30	9.542	10.69	22.01	21.64
45	8/3/2016 11:32:31	9.542	10.69	22.01	21.64
46	8/3/2016 11:32:32	9.542	10.69	22.01	21.64
47	8/3/2016 11:32:33	9.542	10.69	22.01	21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 11:32:34	9.542	10.69	22.01	21.64
49	8/3/2016 11:32:35	9.542	10.69	22.01	21.64
50	8/3/2016 11:32:36	9.542	10.69	22.01	21.64
51	8/3/2016 11:32:37	9.542	10.69	22.01	21.64
52	8/3/2016 11:32:38	9.543	10.69	22.01	21.64
53	8/3/2016 11:32:39	9.542	10.69	22.01	21.64
54	8/3/2016 11:32:40	9.542	10.69	22.01	21.64
55	8/3/2016 11:32:41	9.542	10.69	22.01	21.64
56	8/3/2016 11:32:42	9.542	10.69	22.01	21.64
57	8/3/2016 11:32:43	9.542	10.69	22.01	21.64
58	8/3/2016 11:32:44	9.542	10.69	22.01	21.64
59	8/3/2016 11:32:45	9.542	10.69	22.01	21.64
60	8/3/2016 11:32:46	9.543	10.69	22.01	21.64
61	8/3/2016 11:32:47	9.542	10.75	22.01	21.64
62	8/3/2016 11:32:48	9.543	10.69	22.01	21.64
63	8/3/2016 11:32:49	9.543	10.75	22.01	21.64
64	8/3/2016 11:32:50	9.542	10.69	22.01	21.64
65	8/3/2016 11:32:51	9.543	10.69	22.01	21.64
66	8/3/2016 11:32:52	9.542	10.75	22.01	21.64
67	8/3/2016 11:32:53	9.542	10.69	22.01	21.64
68	8/3/2016 11:32:54	9.542	10.69	22.01	21.64
69	8/3/2016 11:32:55	9.542	10.69	22.01	21.64
70	8/3/2016 11:32:56	9.542	10.69	22.01	21.64
71	8/3/2016 11:32:57	9.542	10.75	22.01	21.64
72	8/3/2016 11:32:58	9.542	10.69	22.01	21.64
73	8/3/2016 11:32:59	9.542	10.75	22.01	21.64
74	8/3/2016 11:33:00	9.543	10.69	22.01	21.64
75	8/3/2016 11:33:01	9.542	10.69	22.01	21.64
76	8/3/2016 11:33:02	9.542	10.75	22.01	21.64
77	8/3/2016 11:33:03	9.542	10.75	22.01	21.64
78	8/3/2016 11:33:04	9.542	10.75	22.01	21.64
79	8/3/2016 11:33:05	9.542	10.75	22.01	21.64
80	8/3/2016 11:33:06	9.542	10.75	22.01	21.64
81	8/3/2016 11:33:07	9.542	10.75	22.01	21.64
82	8/3/2016 11:33:08	9.542	10.75	22.01	21.64
83	8/3/2016 11:33:09	9.542	10.75	22.01	21.64
84	8/3/2016 11:33:10	9.542	10.75	22.01	21.64
85	8/3/2016 11:33:11	9.542	10.75	22.01	21.64
86	8/3/2016 11:33:12	9.543	10.75	22.01	21.64
87	8/3/2016 11:33:13	9.542	10.75	22.01	21.64
88	8/3/2016 11:33:14	9.542	10.75	22.01	21.64
89	8/3/2016 11:33:15	9.542	10.75	22.01	21.64
90	8/3/2016 11:33:16	9.541	10.69	22.01	21.64
91	8/3/2016 11:33:17	9.542	10.75	22.01	21.64
92	8/3/2016 11:33:18	9.542	10.75	22.01	21.64
93	8/3/2016 11:33:19	9.541	10.75	22.01	21.64
94	8/3/2016 11:33:20	9.542	10.75	22.01	21.64
95	8/3/2016 11:33:21	9.542	10.75	22.01	21.64
96	8/3/2016 11:33:22	9.542	10.75	22.01	21.64
97	8/3/2016 11:33:23	9.542	10.75	22.01	21.64
98	8/3/2016 11:33:24	9.541	10.75	22.01	21.64
99	8/3/2016 11:33:25	9.542	10.75	22.01	21.64
100	8/3/2016 11:33:26	9.542	10.75	22.01	21.64
101	8/3/2016 11:33:27	9.541	10.75	22.01	21.64
102	8/3/2016 11:33:28	9.541	10.75	22.01	21.64
103	8/3/2016 11:33:29	9.541	10.75	22.01	21.64
104	8/3/2016 11:33:30	9.542	10.75	22.01	21.64
105	8/3/2016 11:33:31	9.541	10.75	22.01	21.64
106	8/3/2016 11:33:32	9.541	10.75	22.01	21.64
107	8/3/2016 11:33:33	9.541	10.75	22.01	21.64
108	8/3/2016 11:33:34	9.542	10.75	22.01	21.64
109	8/3/2016 11:33:35	9.541	10.75	22.01	21.64
110	8/3/2016 11:33:36	9.542	10.75	22.01	21.64
111	8/3/2016 11:33:37	9.541	10.75	22.01	21.64
112	8/3/2016 11:33:38	9.542	10.75	22.01	21.64
113	8/3/2016 11:33:39	9.542	10.75	22.01	21.64
114	8/3/2016 11:33:40	9.542	10.75	22.01	21.64
115	8/3/2016 11:33:41	9.542	10.75	22.01	21.64
116	8/3/2016 11:33:42	9.542	10.75	22.01	21.64
117	8/3/2016 11:33:43	9.542	10.75	22.01	21.64
118	8/3/2016 11:33:44	9.542	10.75	22.01	21.64
119	8/3/2016 11:33:45	9.542	10.75	22.01	21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 11:33:46	9.542	10.75	22.01	21.64
121	8/3/2016 11:33:47	9.542	10.75	22.01	21.64
122	8/3/2016 11:33:48	9.542	10.75	22.01	21.64
123	8/3/2016 11:33:49	9.542	10.75	22.01	21.64
124	8/3/2016 11:33:50	9.542	10.75	22.01	21.64
125	8/3/2016 11:33:51	9.541	10.75	22.01	21.64
126	8/3/2016 11:33:52	9.541	10.75	22.01	21.64
127	8/3/2016 11:33:53	9.542	10.75	22.01	21.64
128	8/3/2016 11:33:54	9.542	10.75	22.01	21.64
129	8/3/2016 11:33:55	9.542	10.75	22.01	21.64
130	8/3/2016 11:33:56	9.542	10.75	22.01	21.64
131	8/3/2016 11:33:57	9.542	10.75	22.01	21.64
132	8/3/2016 11:33:58	9.542	10.75	22.01	21.64
133	8/3/2016 11:33:59	9.541	10.75	22.01	21.64
134	8/3/2016 11:34:00	9.542	10.75	22.01	21.64
135	8/3/2016 11:34:01	9.541	10.75	22.01	21.64
136	8/3/2016 11:34:02	9.541	10.75	22.01	21.64
137	8/3/2016 11:34:03	9.542	10.75	22.01	21.64
138	8/3/2016 11:34:04	9.541	10.75	22.01	21.64
139	8/3/2016 11:34:05	9.541	10.75	22.01	21.64
140	8/3/2016 11:34:06	9.541	10.75	22.01	21.64
141	8/3/2016 11:34:07	9.541	10.75	22.01	21.64
142	8/3/2016 11:34:08	9.542	10.75	22.01	21.64
143	8/3/2016 11:34:09	9.541	10.75	22.01	21.64
144	8/3/2016 11:34:10	9.541	10.75	22.01	21.64
145	8/3/2016 11:34:11	9.541	10.75	22.01	21.64
146	8/3/2016 11:34:12	9.541	10.75	22.01	21.64
147	8/3/2016 11:34:13	9.541	10.75	22.01	21.64
148	8/3/2016 11:34:14	9.541	10.75	22.01	21.64
149	8/3/2016 11:34:15	9.541	10.75	22.01	21.64
150	8/3/2016 11:34:16	9.542	10.75	22.01	21.64
151	8/3/2016 11:34:17	9.542	10.75	22.01	21.64
152	8/3/2016 11:34:18	9.541	10.75	22.01	21.64
153	8/3/2016 11:34:19	9.542	10.75	22.01	21.64
154	8/3/2016 11:34:20	9.542	10.75	22.01	21.64
155	8/3/2016 11:34:21	9.541	10.75	22.01	21.64
156	8/3/2016 11:34:22	9.541	10.75	22.01	21.64
157	8/3/2016 11:34:23	9.542	10.75	22.01	21.64
158	8/3/2016 11:34:24	9.542	10.75	22.01	21.64
159	8/3/2016 11:34:25	9.541	10.75	22.01	21.64
160	8/3/2016 11:34:26	9.542	10.75	22.01	21.64
161	8/3/2016 11:34:27	9.542	10.75	22.01	21.64
162	8/3/2016 11:34:28	9.542	10.75	22.01	21.64
163	8/3/2016 11:34:29	9.542	10.75	22.01	21.64
164	8/3/2016 11:34:30	9.542	10.75	22.01	21.64
165	8/3/2016 11:34:31	9.542	10.75	22.01	21.64
166	8/3/2016 11:34:32	9.542	10.75	22.01	21.64
167	8/3/2016 11:34:33	9.542	10.75	22.01	21.64
168	8/3/2016 11:34:34	9.542	10.75	22.01	21.64
169	8/3/2016 11:34:35	9.541	10.75	22.01	21.64
170	8/3/2016 11:34:36	9.542	10.75	22.01	21.64
171	8/3/2016 11:34:37	9.542	10.75	22.01	21.64
172	8/3/2016 11:34:38	9.542	10.75	22.01	21.64
173	8/3/2016 11:34:39	9.542	10.75	22.01	21.64
174	8/3/2016 11:34:40	9.542	10.75	22.01	21.64
175	8/3/2016 11:34:41	9.542	10.75	22.01	21.64
176	8/3/2016 11:34:42	9.542	10.75	22.01	21.64
177	8/3/2016 11:34:43	9.542	10.75	22.01	21.64
178	8/3/2016 11:34:44	9.542	10.75	22.01	21.64
179	8/3/2016 11:34:45	9.542	10.75	22.01	21.64
180	8/3/2016 11:34:46	9.542	10.75	22.01	21.64
181	8/3/2016 11:34:47	9.542	10.75	22.01	21.64
182	8/3/2016 11:34:48	9.542	10.75	22.01	21.64
183	8/3/2016 11:34:49	9.542	10.75	22.01	21.64
184	8/3/2016 11:34:50	9.542	10.75	22.01	21.64
185	8/3/2016 11:34:51	9.543	10.75	22.01	21.64
186	8/3/2016 11:34:52	9.542	10.75	22.01	21.64
187	8/3/2016 11:34:53	9.542	10.75	22.01	21.64
188	8/3/2016 11:34:54	9.542	10.75	22.01	21.64
189	8/3/2016 11:34:55	9.542	10.75	22.01	21.64
190	8/3/2016 11:34:56	9.542	10.75	22.01	21.64
191	8/3/2016 11:34:57	9.542	10.75	22.01	21.64

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 11:34:58	9.542	10.75	22.01	21.64
193	8/3/2016 11:34:59	9.542	10.75	22.01	21.64
194	8/3/2016 11:35:00	9.542	10.75	22.01	21.64
195	8/3/2016 11:35:01	9.542	10.75	22.01	21.64
196	8/3/2016 11:35:02	9.542	10.75	22.01	21.64
197	8/3/2016 11:35:03	9.542	10.75	22.01	21.64
198	8/3/2016 11:35:04	9.542	10.75	22.01	21.64
199	8/3/2016 11:35:05	9.542	10.75	22.01	21.64
200	8/3/2016 11:35:06	9.542	10.75	22.01	21.64

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-7
Test: Slug In

Advanced Calibration Data	Cal Date	m2	m1	m0	b3	b2	b1	b0
Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data	Slope	Offset	Cal Date
Pressure	1.003793955	-0.159000009	7/18/2016 11:35
Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-7 Slug In
# Records	248

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.651	11.38
Maximum	3.205	12.19
Mean	2.692	11.93
Variance	0.0039	0.042
Std Deviation	0.0622	0.206

Measured DTW (ft btoc) = 20.86

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 13:43:08	2.653	12.19	6.12	20.86
2	8/3/2016 13:43:09	2.654	12.19	6.12	20.86
3	8/3/2016 13:43:10	2.654	12.19	6.12	20.86
4	8/3/2016 13:43:11	2.654	12.19	6.12	20.86
5	8/3/2016 13:43:12	2.654	12.19	6.12	20.86
6	8/3/2016 13:43:13	2.654	12.19	6.12	20.86
7	8/3/2016 13:43:14	2.819	12.19	6.50	20.48
8	8/3/2016 13:43:15	3.205	12.19	7.39	19.59
9	8/3/2016 13:43:16	3.067	12.19	7.07	19.91
10	8/3/2016 13:43:17	3.013	12.19	6.95	20.03
11	8/3/2016 13:43:18	2.967	12.13	6.84	20.14
12	8/3/2016 13:43:19	2.925	12.13	6.75	20.23
13	8/3/2016 13:43:20	2.89	12.13	6.67	20.31
14	8/3/2016 13:43:21	2.863	12.13	6.60	20.38
15	8/3/2016 13:43:22	2.84	12.13	6.55	20.43
16	8/3/2016 13:43:23	2.823	12.13	6.51	20.47
17	8/3/2016 13:43:24	2.808	12.13	6.48	20.50
18	8/3/2016 13:43:25	2.793	12.13	6.44	20.54
19	8/3/2016 13:43:26	2.784	12.13	6.42	20.56
20	8/3/2016 13:43:27	2.775	12.13	6.40	20.58
21	8/3/2016 13:43:28	2.768	12.13	6.38	20.60
22	8/3/2016 13:43:29	2.762	12.13	6.37	20.61
23	8/3/2016 13:43:30	2.757	12.13	6.36	20.62
24	8/3/2016 13:43:31	2.752	12.13	6.35	20.63
25	8/3/2016 13:43:32	2.749	12.13	6.34	20.64
26	8/3/2016 13:43:33	2.744	12.13	6.33	20.65
27	8/3/2016 13:43:34	2.741	12.13	6.32	20.66
28	8/3/2016 13:43:35	2.738	12.13	6.32	20.66
29	8/3/2016 13:43:36	2.735	12.13	6.31	20.67
30	8/3/2016 13:43:37	2.733	12.13	6.30	20.68
31	8/3/2016 13:43:38	2.73	12.13	6.30	20.68
32	8/3/2016 13:43:39	2.729	12.13	6.29	20.69
33	8/3/2016 13:43:40	2.726	12.13	6.29	20.69
34	8/3/2016 13:43:41	2.724	12.13	6.28	20.70
35	8/3/2016 13:43:42	2.723	12.13	6.28	20.70
36	8/3/2016 13:43:43	2.721	12.13	6.28	20.70
37	8/3/2016 13:43:44	2.72	12.13	6.27	20.71
38	8/3/2016 13:43:45	2.718	12.06	6.27	20.71
39	8/3/2016 13:43:46	2.717	12.06	6.27	20.71
40	8/3/2016 13:43:47	2.715	12.06	6.26	20.72
41	8/3/2016 13:43:48	2.714	12.13	6.26	20.72
42	8/3/2016 13:43:49	2.713	12.06	6.26	20.72
43	8/3/2016 13:43:50	2.711	12.06	6.25	20.73
44	8/3/2016 13:43:51	2.71	12.06	6.25	20.73
45	8/3/2016 13:43:52	2.71	12.13	6.25	20.73
46	8/3/2016 13:43:53	2.709	12.06	6.25	20.73
47	8/3/2016 13:43:54	2.708	12.06	6.25	20.73

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 13:43:55	2.708	12.06	6.25	20.73
49	8/3/2016 13:43:56	2.706	12.06	6.24	20.74
50	8/3/2016 13:43:57	2.705	12.06	6.24	20.74
51	8/3/2016 13:43:58	2.704	12.06	6.24	20.74
52	8/3/2016 13:43:59	2.704	12.06	6.24	20.74
53	8/3/2016 13:44:00	2.703	12.06	6.23	20.75
54	8/3/2016 13:44:01	2.703	12.06	6.23	20.75
55	8/3/2016 13:44:02	2.702	12.06	6.23	20.75
56	8/3/2016 13:44:03	2.7	12.06	6.23	20.75
57	8/3/2016 13:44:04	2.699	12.06	6.23	20.75
58	8/3/2016 13:44:05	2.699	12.06	6.23	20.75
59	8/3/2016 13:44:06	2.699	12.06	6.23	20.75
60	8/3/2016 13:44:07	2.698	12.06	6.22	20.76
61	8/3/2016 13:44:08	2.698	12.06	6.22	20.76
62	8/3/2016 13:44:09	2.697	12.06	6.22	20.76
63	8/3/2016 13:44:10	2.696	12.06	6.22	20.76
64	8/3/2016 13:44:11	2.696	12.06	6.22	20.76
65	8/3/2016 13:44:12	2.695	12.06	6.22	20.76
66	8/3/2016 13:44:13	2.695	12.06	6.22	20.76
67	8/3/2016 13:44:14	2.695	12.06	6.22	20.76
68	8/3/2016 13:44:15	2.694	12.06	6.21	20.77
69	8/3/2016 13:44:16	2.694	12.06	6.21	20.77
70	8/3/2016 13:44:17	2.694	12.06	6.21	20.77
71	8/3/2016 13:44:18	2.693	12.06	6.21	20.77
72	8/3/2016 13:44:19	2.692	12.06	6.21	20.77
73	8/3/2016 13:44:20	2.692	12.06	6.21	20.77
74	8/3/2016 13:44:21	2.692	12.06	6.21	20.77
75	8/3/2016 13:44:22	2.691	12.06	6.21	20.77
76	8/3/2016 13:44:23	2.691	12.06	6.21	20.77
77	8/3/2016 13:44:24	2.69	12.06	6.20	20.78
78	8/3/2016 13:44:25	2.69	12	6.20	20.78
79	8/3/2016 13:44:26	2.69	12.06	6.20	20.78
80	8/3/2016 13:44:27	2.69	12.06	6.20	20.78
81	8/3/2016 13:44:28	2.689	12	6.20	20.78
82	8/3/2016 13:44:29	2.69	12	6.20	20.78
83	8/3/2016 13:44:30	2.689	12	6.20	20.78
84	8/3/2016 13:44:31	2.688	12	6.20	20.78
85	8/3/2016 13:44:32	2.688	12	6.20	20.78
86	8/3/2016 13:44:33	2.687	12	6.20	20.78
87	8/3/2016 13:44:34	2.687	12	6.20	20.78
88	8/3/2016 13:44:35	2.687	12.06	6.20	20.78
89	8/3/2016 13:44:36	2.687	12	6.20	20.78
90	8/3/2016 13:44:37	2.687	12.06	6.20	20.78
91	8/3/2016 13:44:38	2.686	12	6.20	20.78
92	8/3/2016 13:44:39	2.686	12	6.20	20.78
93	8/3/2016 13:44:40	2.685	12	6.19	20.79
94	8/3/2016 13:44:41	2.685	12.06	6.19	20.79
95	8/3/2016 13:44:42	2.685	12.06	6.19	20.79
96	8/3/2016 13:44:43	2.685	12	6.19	20.79
97	8/3/2016 13:44:44	2.684	12	6.19	20.79
98	8/3/2016 13:44:45	2.684	12	6.19	20.79
99	8/3/2016 13:44:46	2.683	12	6.19	20.79
100	8/3/2016 13:44:47	2.684	12	6.19	20.79
101	8/3/2016 13:44:48	2.683	12	6.19	20.79
102	8/3/2016 13:44:49	2.683	12	6.19	20.79
103	8/3/2016 13:44:50	2.682	12	6.19	20.79
104	8/3/2016 13:44:51	2.682	12	6.19	20.79
105	8/3/2016 13:44:52	2.682	12	6.19	20.79
106	8/3/2016 13:44:53	2.682	12	6.19	20.79
107	8/3/2016 13:44:54	2.681	12	6.18	20.80
108	8/3/2016 13:44:55	2.681	12	6.18	20.80
109	8/3/2016 13:44:56	2.681	12	6.18	20.80
110	8/3/2016 13:44:57	2.68	12	6.18	20.80
111	8/3/2016 13:44:58	2.68	12	6.18	20.80
112	8/3/2016 13:44:59	2.68	12	6.18	20.80
113	8/3/2016 13:45:00	2.68	12	6.18	20.80
114	8/3/2016 13:45:01	2.68	12	6.18	20.80
115	8/3/2016 13:45:02	2.679	12	6.18	20.80
116	8/3/2016 13:45:03	2.679	12	6.18	20.80
117	8/3/2016 13:45:04	2.679	12	6.18	20.80
118	8/3/2016 13:45:05	2.679	12	6.18	20.80
119	8/3/2016 13:45:06	2.678	12	6.18	20.80

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 13:45:07	2.678	12	6.18	20.80
121	8/3/2016 13:45:08	2.678	12	6.18	20.80
122	8/3/2016 13:45:09	2.678	12	6.18	20.80
123	8/3/2016 13:45:10	2.678	12	6.18	20.80
124	8/3/2016 13:45:11	2.678	12	6.18	20.80
125	8/3/2016 13:45:12	2.677	12	6.17	20.81
126	8/3/2016 13:45:13	2.677	12	6.17	20.81
127	8/3/2016 13:45:14	2.677	12	6.17	20.81
128	8/3/2016 13:45:15	2.676	12	6.17	20.81
129	8/3/2016 13:45:16	2.677	12	6.17	20.81
130	8/3/2016 13:45:17	2.677	12	6.17	20.81
131	8/3/2016 13:45:18	2.676	12	6.17	20.81
132	8/3/2016 13:45:19	2.676	11.94	6.17	20.81
133	8/3/2016 13:45:20	2.675	12	6.17	20.81
134	8/3/2016 13:45:21	2.675	11.94	6.17	20.81
135	8/3/2016 13:45:22	2.675	12	6.17	20.81
136	8/3/2016 13:45:23	2.675	11.94	6.17	20.81
137	8/3/2016 13:45:24	2.675	12	6.17	20.81
138	8/3/2016 13:45:25	2.675	11.94	6.17	20.81
139	8/3/2016 13:45:26	2.674	11.94	6.17	20.81
140	8/3/2016 13:45:27	2.674	11.94	6.17	20.81
141	8/3/2016 13:45:28	2.674	11.94	6.17	20.81
142	8/3/2016 13:45:29	2.674	11.94	6.17	20.81
143	8/3/2016 13:45:30	2.673	11.94	6.17	20.81
144	8/3/2016 13:45:31	2.673	11.94	6.17	20.81
145	8/3/2016 13:45:32	2.673	11.94	6.17	20.81
146	8/3/2016 13:45:33	2.673	11.94	6.17	20.81
147	8/3/2016 13:45:34	2.673	11.94	6.17	20.81
148	8/3/2016 13:45:35	2.673	11.94	6.17	20.81
149	8/3/2016 13:45:36	2.673	11.94	6.17	20.81
150	8/3/2016 13:45:37	2.673	11.94	6.17	20.81
151	8/3/2016 13:45:38	2.672	11.94	6.16	20.82
152	8/3/2016 13:45:39	2.672	11.94	6.16	20.82
153	8/3/2016 13:45:40	2.672	11.94	6.16	20.82
154	8/3/2016 13:45:41	2.672	11.94	6.16	20.82
155	8/3/2016 13:45:42	2.671	11.94	6.16	20.82
156	8/3/2016 13:45:43	2.671	11.94	6.16	20.82
157	8/3/2016 13:45:44	2.671	11.94	6.16	20.82
158	8/3/2016 13:45:45	2.671	11.94	6.16	20.82
159	8/3/2016 13:45:46	2.67	11.94	6.16	20.82
160	8/3/2016 13:45:47	2.671	11.94	6.16	20.82
161	8/3/2016 13:45:48	2.67	11.94	6.16	20.82
162	8/3/2016 13:45:49	2.67	11.94	6.16	20.82
163	8/3/2016 13:45:50	2.67	11.94	6.16	20.82
164	8/3/2016 13:45:51	2.67	11.94	6.16	20.82
165	8/3/2016 13:45:52	2.669	11.94	6.16	20.82
166	8/3/2016 13:45:53	2.669	11.94	6.16	20.82
167	8/3/2016 13:45:54	2.669	11.94	6.16	20.82
168	8/3/2016 13:45:55	2.669	11.94	6.16	20.82
169	8/3/2016 13:45:56	2.669	11.94	6.16	20.82
170	8/3/2016 13:45:57	2.669	11.94	6.16	20.82
171	8/3/2016 13:45:58	2.669	11.94	6.16	20.82
172	8/3/2016 13:45:59	2.669	11.94	6.16	20.82
173	8/3/2016 13:46:00	2.668	11.94	6.15	20.83
174	8/3/2016 13:46:01	2.669	11.94	6.16	20.82
175	8/3/2016 13:46:02	2.668	11.94	6.15	20.83
176	8/3/2016 13:46:03	2.668	11.94	6.15	20.83
177	8/3/2016 13:46:04	2.668	11.94	6.15	20.83
178	8/3/2016 13:46:05	2.668	11.94	6.15	20.83
179	8/3/2016 13:46:06	2.668	11.94	6.15	20.83
180	8/3/2016 13:46:07	2.668	11.94	6.15	20.83
181	8/3/2016 13:46:08	2.668	11.94	6.15	20.83
182	8/3/2016 13:46:09	2.667	11.94	6.15	20.83
183	8/3/2016 13:46:10	2.667	11.94	6.15	20.83
184	8/3/2016 13:46:11	2.667	11.94	6.15	20.83
185	8/3/2016 13:46:12	2.667	11.94	6.15	20.83
186	8/3/2016 13:46:13	2.667	11.94	6.15	20.83
187	8/3/2016 13:46:14	2.667	11.94	6.15	20.83
188	8/3/2016 13:46:15	2.666	11.94	6.15	20.83
189	8/3/2016 13:46:16	2.666	11.94	6.15	20.83
190	8/3/2016 13:46:17	2.666	11.94	6.15	20.83
191	8/3/2016 13:46:18	2.666	11.94	6.15	20.83

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 13:46:19	2.666	11.94	6.15	20.83
193	8/3/2016 13:46:20	2.666	11.94	6.15	20.83
194	8/3/2016 13:46:21	2.666	11.88	6.15	20.83
195	8/3/2016 13:46:22	2.666	11.94	6.15	20.83
196	8/3/2016 13:46:23	2.665	11.94	6.15	20.83
197	8/3/2016 13:46:24	2.666	11.94	6.15	20.83
198	8/3/2016 13:46:25	2.666	11.94	6.15	20.83
199	8/3/2016 13:46:26	2.665	11.94	6.15	20.83
200	8/3/2016 13:46:27	2.665	11.88	6.15	20.83
201	8/3/2016 13:46:37	2.664	11.75	6.14	20.84
202	8/3/2016 13:46:47	2.662	11.69	6.14	20.84
203	8/3/2016 13:46:57	2.661	11.69	6.14	20.84
204	8/3/2016 13:47:07	2.661	11.63	6.14	20.84
205	8/3/2016 13:47:17	2.66	11.63	6.14	20.84
206	8/3/2016 13:47:27	2.659	11.63	6.13	20.85
207	8/3/2016 13:47:37	2.659	11.56	6.13	20.85
208	8/3/2016 13:47:47	2.659	11.56	6.13	20.85
209	8/3/2016 13:47:57	2.658	11.56	6.13	20.85
210	8/3/2016 13:48:07	2.657	11.5	6.13	20.85
211	8/3/2016 13:48:17	2.657	11.5	6.13	20.85
212	8/3/2016 13:48:27	2.657	11.5	6.13	20.85
213	8/3/2016 13:48:37	2.656	11.5	6.13	20.85
214	8/3/2016 13:48:47	2.656	11.5	6.13	20.85
215	8/3/2016 13:48:57	2.655	11.5	6.12	20.86
216	8/3/2016 13:49:07	2.655	11.5	6.12	20.86
217	8/3/2016 13:49:17	2.654	11.44	6.12	20.86
218	8/3/2016 13:49:27	2.655	11.44	6.12	20.86
219	8/3/2016 13:49:37	2.655	11.44	6.12	20.86
220	8/3/2016 13:49:47	2.654	11.44	6.12	20.86
221	8/3/2016 13:49:57	2.654	11.44	6.12	20.86
222	8/3/2016 13:50:07	2.654	11.44	6.12	20.86
223	8/3/2016 13:50:17	2.654	11.44	6.12	20.86
224	8/3/2016 13:50:27	2.654	11.38	6.12	20.86
225	8/3/2016 13:50:37	2.654	11.38	6.12	20.86
226	8/3/2016 13:50:47	2.654	11.38	6.12	20.86
227	8/3/2016 13:50:57	2.654	11.38	6.12	20.86
228	8/3/2016 13:51:07	2.654	11.5	6.12	20.86
229	8/3/2016 13:51:17	2.653	11.56	6.12	20.86
230	8/3/2016 13:51:27	2.654	11.56	6.12	20.86
231	8/3/2016 13:51:37	2.653	11.56	6.12	20.86
232	8/3/2016 13:51:47	2.653	11.63	6.12	20.86
233	8/3/2016 13:51:57	2.652	11.63	6.12	20.86
234	8/3/2016 13:52:07	2.652	11.63	6.12	20.86
235	8/3/2016 13:52:17	2.651	11.63	6.11	20.87
236	8/3/2016 13:52:27	2.651	11.63	6.11	20.87
237	8/3/2016 13:52:37	2.652	11.63	6.12	20.86
238	8/3/2016 13:52:47	2.651	11.63	6.11	20.87
239	8/3/2016 13:52:57	2.652	11.69	6.12	20.86
240	8/3/2016 13:53:07	2.652	11.63	6.12	20.86
241	8/3/2016 13:53:17	2.652	11.63	6.12	20.86
242	8/3/2016 13:53:27	2.652	11.63	6.12	20.86
243	8/3/2016 13:53:37	2.653	11.56	6.12	20.86
244	8/3/2016 13:53:47	2.653	11.5	6.12	20.86
245	8/3/2016 13:53:57	2.654	11.5	6.12	20.86
246	8/3/2016 13:54:07	2.654	11.44	6.12	20.86
247	8/3/2016 13:54:17	2.655	11.44	6.12	20.86
248	8/3/2016 13:54:27	2.655	11.56	6.12	20.86

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-7
Test: Slug Out

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-7 Slug Out
# Records	237

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.174	11.13
Maximum	2.653	11.63
Mean	2.616	11.51
Variance	0.0041	0.011
Std Deviation	0.0638	0.104

Measured DTW (ft btoc) = 20.86

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 13:55:59	2.652	11.44	6.12	20.86
2	8/3/2016 13:56:00	2.652	11.44	6.12	20.86
3	8/3/2016 13:56:01	2.652	11.5	6.12	20.86
4	8/3/2016 13:56:02	2.649	11.44	6.11	20.87
5	8/3/2016 13:56:03	2.175	11.44	5.02	21.96
6	8/3/2016 13:56:04	2.174	11.5	5.01	21.97
7	8/3/2016 13:56:05	2.252	11.44	5.19	21.79
8	8/3/2016 13:56:06	2.317	11.5	5.34	21.64
9	8/3/2016 13:56:07	2.372	11.5	5.47	21.51
10	8/3/2016 13:56:08	2.412	11.5	5.56	21.42
11	8/3/2016 13:56:09	2.443	11.5	5.64	21.34
12	8/3/2016 13:56:10	2.467	11.5	5.69	21.29
13	8/3/2016 13:56:11	2.487	11.5	5.74	21.24
14	8/3/2016 13:56:12	2.502	11.5	5.77	21.21
15	8/3/2016 13:56:13	2.514	11.5	5.80	21.18
16	8/3/2016 13:56:14	2.526	11.5	5.83	21.15
17	8/3/2016 13:56:15	2.535	11.5	5.85	21.13
18	8/3/2016 13:56:16	2.542	11.5	5.86	21.12
19	8/3/2016 13:56:17	2.55	11.5	5.88	21.10
20	8/3/2016 13:56:18	2.555	11.5	5.89	21.09
21	8/3/2016 13:56:19	2.559	11.5	5.90	21.08
22	8/3/2016 13:56:20	2.563	11.56	5.91	21.07
23	8/3/2016 13:56:21	2.567	11.5	5.92	21.06
24	8/3/2016 13:56:22	2.571	11.5	5.93	21.05
25	8/3/2016 13:56:23	2.575	11.5	5.94	21.04
26	8/3/2016 13:56:24	2.578	11.5	5.95	21.03
27	8/3/2016 13:56:25	2.58	11.56	5.95	21.03
28	8/3/2016 13:56:26	2.582	11.56	5.96	21.02
29	8/3/2016 13:56:27	2.584	11.5	5.96	21.02
30	8/3/2016 13:56:28	2.586	11.56	5.97	21.01
31	8/3/2016 13:56:29	2.587	11.56	5.97	21.01
32	8/3/2016 13:56:30	2.589	11.5	5.97	21.01
33	8/3/2016 13:56:31	2.591	11.56	5.98	21.00
34	8/3/2016 13:56:32	2.592	11.5	5.98	21.00
35	8/3/2016 13:56:33	2.593	11.56	5.98	21.00
36	8/3/2016 13:56:34	2.594	11.56	5.98	21.00
37	8/3/2016 13:56:35	2.595	11.56	5.99	20.99
38	8/3/2016 13:56:36	2.596	11.56	5.99	20.99
39	8/3/2016 13:56:37	2.597	11.56	5.99	20.99
40	8/3/2016 13:56:38	2.598	11.56	5.99	20.99
41	8/3/2016 13:56:39	2.599	11.56	6.00	20.98
42	8/3/2016 13:56:40	2.6	11.56	6.00	20.98
43	8/3/2016 13:56:41	2.6	11.56	6.00	20.98
44	8/3/2016 13:56:42	2.601	11.56	6.00	20.98
45	8/3/2016 13:56:43	2.602	11.56	6.00	20.98
46	8/3/2016 13:56:44	2.603	11.56	6.00	20.98
47	8/3/2016 13:56:45	2.604	11.56	6.01	20.97

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 13:56:46	2.604	11.56	6.01	20.97
49	8/3/2016 13:56:47	2.604	11.56	6.01	20.97
50	8/3/2016 13:56:48	2.606	11.56	6.01	20.97
51	8/3/2016 13:56:49	2.606	11.56	6.01	20.97
52	8/3/2016 13:56:50	2.607	11.56	6.01	20.97
53	8/3/2016 13:56:51	2.608	11.56	6.02	20.96
54	8/3/2016 13:56:52	2.608	11.56	6.02	20.96
55	8/3/2016 13:56:53	2.609	11.56	6.02	20.96
56	8/3/2016 13:56:54	2.609	11.56	6.02	20.96
57	8/3/2016 13:56:55	2.609	11.56	6.02	20.96
58	8/3/2016 13:56:56	2.61	11.56	6.02	20.96
59	8/3/2016 13:56:57	2.611	11.56	6.02	20.96
60	8/3/2016 13:56:58	2.611	11.56	6.02	20.96
61	8/3/2016 13:56:59	2.612	11.56	6.02	20.96
62	8/3/2016 13:57:00	2.612	11.56	6.02	20.96
63	8/3/2016 13:57:01	2.613	11.56	6.03	20.95
64	8/3/2016 13:57:02	2.613	11.56	6.03	20.95
65	8/3/2016 13:57:03	2.614	11.56	6.03	20.95
66	8/3/2016 13:57:04	2.615	11.56	6.03	20.95
67	8/3/2016 13:57:05	2.615	11.56	6.03	20.95
68	8/3/2016 13:57:06	2.615	11.56	6.03	20.95
69	8/3/2016 13:57:07	2.615	11.56	6.03	20.95
70	8/3/2016 13:57:08	2.616	11.56	6.03	20.95
71	8/3/2016 13:57:09	2.616	11.56	6.03	20.95
72	8/3/2016 13:57:10	2.617	11.56	6.04	20.94
73	8/3/2016 13:57:11	2.617	11.56	6.04	20.94
74	8/3/2016 13:57:12	2.618	11.56	6.04	20.94
75	8/3/2016 13:57:13	2.619	11.56	6.04	20.94
76	8/3/2016 13:57:14	2.619	11.56	6.04	20.94
77	8/3/2016 13:57:15	2.619	11.56	6.04	20.94
78	8/3/2016 13:57:16	2.619	11.56	6.04	20.94
79	8/3/2016 13:57:17	2.621	11.56	6.05	20.93
80	8/3/2016 13:57:18	2.621	11.56	6.05	20.93
81	8/3/2016 13:57:19	2.621	11.56	6.05	20.93
82	8/3/2016 13:57:20	2.622	11.56	6.05	20.93
83	8/3/2016 13:57:21	2.622	11.56	6.05	20.93
84	8/3/2016 13:57:22	2.623	11.56	6.05	20.93
85	8/3/2016 13:57:23	2.623	11.56	6.05	20.93
86	8/3/2016 13:57:24	2.624	11.56	6.05	20.93
87	8/3/2016 13:57:25	2.624	11.56	6.05	20.93
88	8/3/2016 13:57:26	2.624	11.56	6.05	20.93
89	8/3/2016 13:57:27	2.625	11.56	6.05	20.93
90	8/3/2016 13:57:28	2.625	11.56	6.05	20.93
91	8/3/2016 13:57:29	2.625	11.56	6.05	20.93
92	8/3/2016 13:57:30	2.626	11.56	6.06	20.92
93	8/3/2016 13:57:31	2.626	11.56	6.06	20.92
94	8/3/2016 13:57:32	2.627	11.56	6.06	20.92
95	8/3/2016 13:57:33	2.627	11.56	6.06	20.92
96	8/3/2016 13:57:34	2.627	11.56	6.06	20.92
97	8/3/2016 13:57:35	2.628	11.56	6.06	20.92
98	8/3/2016 13:57:36	2.627	11.56	6.06	20.92
99	8/3/2016 13:57:37	2.628	11.56	6.06	20.92
100	8/3/2016 13:57:38	2.628	11.56	6.06	20.92
101	8/3/2016 13:57:39	2.629	11.56	6.06	20.92
102	8/3/2016 13:57:40	2.629	11.56	6.06	20.92
103	8/3/2016 13:57:41	2.629	11.56	6.06	20.92
104	8/3/2016 13:57:42	2.63	11.56	6.07	20.91
105	8/3/2016 13:57:43	2.63	11.56	6.07	20.91
106	8/3/2016 13:57:44	2.63	11.56	6.07	20.91
107	8/3/2016 13:57:45	2.63	11.56	6.07	20.91
108	8/3/2016 13:57:46	2.631	11.56	6.07	20.91
109	8/3/2016 13:57:47	2.632	11.56	6.07	20.91
110	8/3/2016 13:57:48	2.632	11.56	6.07	20.91
111	8/3/2016 13:57:49	2.632	11.56	6.07	20.91
112	8/3/2016 13:57:50	2.632	11.56	6.07	20.91
113	8/3/2016 13:57:51	2.632	11.56	6.07	20.91
114	8/3/2016 13:57:52	2.632	11.56	6.07	20.91
115	8/3/2016 13:57:53	2.633	11.56	6.07	20.91
116	8/3/2016 13:57:54	2.633	11.56	6.07	20.91
117	8/3/2016 13:57:55	2.634	11.56	6.08	20.90
118	8/3/2016 13:57:56	2.634	11.56	6.08	20.90
119	8/3/2016 13:57:57	2.634	11.56	6.08	20.90

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 13:57:58	2.634	11.56	6.08	20.90
121	8/3/2016 13:57:59	2.635	11.56	6.08	20.90
122	8/3/2016 13:58:00	2.635	11.56	6.08	20.90
123	8/3/2016 13:58:01	2.635	11.56	6.08	20.90
124	8/3/2016 13:58:02	2.635	11.56	6.08	20.90
125	8/3/2016 13:58:03	2.635	11.56	6.08	20.90
126	8/3/2016 13:58:04	2.636	11.56	6.08	20.90
127	8/3/2016 13:58:05	2.636	11.56	6.08	20.90
128	8/3/2016 13:58:06	2.636	11.56	6.08	20.90
129	8/3/2016 13:58:07	2.637	11.56	6.08	20.90
130	8/3/2016 13:58:08	2.637	11.56	6.08	20.90
131	8/3/2016 13:58:09	2.637	11.56	6.08	20.90
132	8/3/2016 13:58:10	2.637	11.56	6.08	20.90
133	8/3/2016 13:58:11	2.637	11.56	6.08	20.90
134	8/3/2016 13:58:12	2.637	11.56	6.08	20.90
135	8/3/2016 13:58:13	2.638	11.56	6.08	20.90
136	8/3/2016 13:58:14	2.637	11.56	6.08	20.90
137	8/3/2016 13:58:15	2.638	11.56	6.08	20.90
138	8/3/2016 13:58:16	2.638	11.56	6.08	20.90
139	8/3/2016 13:58:17	2.638	11.56	6.08	20.90
140	8/3/2016 13:58:18	2.638	11.63	6.08	20.90
141	8/3/2016 13:58:19	2.638	11.56	6.08	20.90
142	8/3/2016 13:58:20	2.639	11.56	6.09	20.89
143	8/3/2016 13:58:21	2.639	11.56	6.09	20.89
144	8/3/2016 13:58:22	2.639	11.56	6.09	20.89
145	8/3/2016 13:58:23	2.639	11.56	6.09	20.89
146	8/3/2016 13:58:24	2.639	11.56	6.09	20.89
147	8/3/2016 13:58:25	2.64	11.56	6.09	20.89
148	8/3/2016 13:58:26	2.64	11.56	6.09	20.89
149	8/3/2016 13:58:27	2.64	11.56	6.09	20.89
150	8/3/2016 13:58:28	2.641	11.56	6.09	20.89
151	8/3/2016 13:58:29	2.641	11.56	6.09	20.89
152	8/3/2016 13:58:30	2.641	11.56	6.09	20.89
153	8/3/2016 13:58:31	2.641	11.56	6.09	20.89
154	8/3/2016 13:58:32	2.641	11.56	6.09	20.89
155	8/3/2016 13:58:33	2.642	11.56	6.09	20.89
156	8/3/2016 13:58:34	2.641	11.56	6.09	20.89
157	8/3/2016 13:58:35	2.642	11.56	6.09	20.89
158	8/3/2016 13:58:36	2.642	11.56	6.09	20.89
159	8/3/2016 13:58:37	2.642	11.63	6.09	20.89
160	8/3/2016 13:58:38	2.642	11.56	6.09	20.89
161	8/3/2016 13:58:39	2.642	11.56	6.09	20.89
162	8/3/2016 13:58:40	2.642	11.56	6.09	20.89
163	8/3/2016 13:58:41	2.643	11.56	6.10	20.88
164	8/3/2016 13:58:42	2.643	11.56	6.10	20.88
165	8/3/2016 13:58:43	2.643	11.56	6.10	20.88
166	8/3/2016 13:58:44	2.643	11.56	6.10	20.88
167	8/3/2016 13:58:45	2.643	11.56	6.10	20.88
168	8/3/2016 13:58:46	2.643	11.56	6.10	20.88
169	8/3/2016 13:58:47	2.643	11.56	6.10	20.88
170	8/3/2016 13:58:48	2.643	11.56	6.10	20.88
171	8/3/2016 13:58:49	2.643	11.56	6.10	20.88
172	8/3/2016 13:58:50	2.643	11.56	6.10	20.88
173	8/3/2016 13:58:51	2.643	11.56	6.10	20.88
174	8/3/2016 13:58:52	2.643	11.56	6.10	20.88
175	8/3/2016 13:58:53	2.643	11.56	6.10	20.88
176	8/3/2016 13:58:54	2.643	11.56	6.10	20.88
177	8/3/2016 13:58:55	2.644	11.56	6.10	20.88
178	8/3/2016 13:58:56	2.643	11.63	6.10	20.88
179	8/3/2016 13:58:57	2.643	11.56	6.10	20.88
180	8/3/2016 13:58:58	2.643	11.56	6.10	20.88
181	8/3/2016 13:58:59	2.644	11.56	6.10	20.88
182	8/3/2016 13:59:00	2.643	11.56	6.10	20.88
183	8/3/2016 13:59:01	2.643	11.56	6.10	20.88
184	8/3/2016 13:59:02	2.643	11.56	6.10	20.88
185	8/3/2016 13:59:03	2.643	11.56	6.10	20.88
186	8/3/2016 13:59:04	2.644	11.56	6.10	20.88
187	8/3/2016 13:59:05	2.644	11.56	6.10	20.88
188	8/3/2016 13:59:06	2.644	11.56	6.10	20.88
189	8/3/2016 13:59:07	2.644	11.56	6.10	20.88
190	8/3/2016 13:59:08	2.644	11.56	6.10	20.88
191	8/3/2016 13:59:09	2.644	11.56	6.10	20.88

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 13:59:10	2.643	11.56	6.10	20.88
193	8/3/2016 13:59:11	2.644	11.56	6.10	20.88
194	8/3/2016 13:59:12	2.644	11.56	6.10	20.88
195	8/3/2016 13:59:13	2.644	11.56	6.10	20.88
196	8/3/2016 13:59:14	2.644	11.56	6.10	20.88
197	8/3/2016 13:59:15	2.645	11.56	6.10	20.88
198	8/3/2016 13:59:16	2.645	11.56	6.10	20.88
199	8/3/2016 13:59:17	2.645	11.56	6.10	20.88
200	8/3/2016 13:59:18	2.645	11.56	6.10	20.88
201	8/3/2016 13:59:28	2.646	11.44	6.10	20.88
202	8/3/2016 13:59:38	2.646	11.38	6.10	20.88
203	8/3/2016 13:59:48	2.646	11.38	6.10	20.88
204	8/3/2016 13:59:58	2.647	11.38	6.11	20.87
205	8/3/2016 14:00:08	2.647	11.31	6.11	20.87
206	8/3/2016 14:00:18	2.647	11.31	6.11	20.87
207	8/3/2016 14:00:28	2.647	11.25	6.11	20.87
208	8/3/2016 14:00:38	2.648	11.38	6.11	20.87
209	8/3/2016 14:00:48	2.65	11.44	6.11	20.87
210	8/3/2016 14:00:58	2.65	11.44	6.11	20.87
211	8/3/2016 14:01:08	2.65	11.44	6.11	20.87
212	8/3/2016 14:01:18	2.65	11.44	6.11	20.87
213	8/3/2016 14:01:28	2.65	11.5	6.11	20.87
214	8/3/2016 14:01:38	2.65	11.5	6.11	20.87
215	8/3/2016 14:01:48	2.65	11.5	6.11	20.87
216	8/3/2016 14:01:58	2.65	11.38	6.11	20.87
217	8/3/2016 14:02:08	2.65	11.31	6.11	20.87
218	8/3/2016 14:02:18	2.651	11.31	6.11	20.87
219	8/3/2016 14:02:28	2.65	11.25	6.11	20.87
220	8/3/2016 14:02:38	2.651	11.25	6.11	20.87
221	8/3/2016 14:02:48	2.651	11.25	6.11	20.87
222	8/3/2016 14:02:58	2.652	11.25	6.12	20.86
223	8/3/2016 14:03:08	2.652	11.25	6.12	20.86
224	8/3/2016 14:03:18	2.652	11.19	6.12	20.86
225	8/3/2016 14:03:28	2.653	11.19	6.12	20.86
226	8/3/2016 14:03:38	2.652	11.19	6.12	20.86
227	8/3/2016 14:03:48	2.653	11.19	6.12	20.86
228	8/3/2016 14:03:58	2.652	11.19	6.12	20.86
229	8/3/2016 14:04:08	2.652	11.19	6.12	20.86
230	8/3/2016 14:04:18	2.653	11.19	6.12	20.86
231	8/3/2016 14:04:28	2.652	11.19	6.12	20.86
232	8/3/2016 14:04:38	2.652	11.19	6.12	20.86
233	8/3/2016 14:04:48	2.652	11.13	6.12	20.86
234	8/3/2016 14:04:58	2.653	11.19	6.12	20.86
235	8/3/2016 14:05:08	2.652	11.13	6.12	20.86
236	8/3/2016 14:05:18	2.652	11.31	6.12	20.86
237	8/3/2016 14:05:28	2.652	11.31	6.12	20.86

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-11
Test: Slug In

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-11 Slug In
# Records	214

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.632	11.63
Maximum	3.047	11.88
Mean	2.644	11.81
Variance	0.0019	0.005
Std Deviation	0.0438	0.068

Measured DTW (ft btoc) = 17.28

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 13:12:20	2.632	11.63	6.07	17.28
2	8/3/2016 13:12:21	2.632	11.63	6.07	17.28
3	8/3/2016 13:12:22	2.632	11.69	6.07	17.28
4	8/3/2016 13:12:23	2.632	11.69	6.07	17.28
5	8/3/2016 13:12:24	2.632	11.63	6.07	17.28
6	8/3/2016 13:12:25	2.632	11.69	6.07	17.28
7	8/3/2016 13:12:26	2.632	11.69	6.07	17.28
8	8/3/2016 13:12:27	2.832	11.69	6.53	16.82
9	8/3/2016 13:12:28	3.047	11.69	7.03	16.32
10	8/3/2016 13:12:29	2.929	11.69	6.76	16.59
11	8/3/2016 13:12:30	2.867	11.69	6.61	16.74
12	8/3/2016 13:12:31	2.81	11.69	6.48	16.87
13	8/3/2016 13:12:32	2.769	11.69	6.39	16.96
14	8/3/2016 13:12:33	2.739	11.69	6.32	17.03
15	8/3/2016 13:12:34	2.717	11.69	6.27	17.08
16	8/3/2016 13:12:35	2.7	11.69	6.23	17.12
17	8/3/2016 13:12:36	2.688	11.69	6.20	17.15
18	8/3/2016 13:12:37	2.678	11.75	6.18	17.17
19	8/3/2016 13:12:38	2.67	11.69	6.16	17.19
20	8/3/2016 13:12:39	2.664	11.69	6.14	17.21
21	8/3/2016 13:12:40	2.66	11.75	6.14	17.21
22	8/3/2016 13:12:41	2.657	11.75	6.13	17.22
23	8/3/2016 13:12:42	2.654	11.75	6.12	17.23
24	8/3/2016 13:12:43	2.652	11.75	6.12	17.23
25	8/3/2016 13:12:44	2.65	11.75	6.11	17.24
26	8/3/2016 13:12:45	2.649	11.75	6.11	17.24
27	8/3/2016 13:12:46	2.647	11.75	6.11	17.24
28	8/3/2016 13:12:47	2.646	11.75	6.10	17.25
29	8/3/2016 13:12:48	2.645	11.75	6.10	17.25
30	8/3/2016 13:12:49	2.644	11.75	6.10	17.25
31	8/3/2016 13:12:50	2.644	11.75	6.10	17.25
32	8/3/2016 13:12:51	2.643	11.75	6.10	17.25
33	8/3/2016 13:12:52	2.642	11.75	6.09	17.26
34	8/3/2016 13:12:53	2.642	11.75	6.09	17.26
35	8/3/2016 13:12:54	2.641	11.75	6.09	17.26
36	8/3/2016 13:12:55	2.641	11.75	6.09	17.26
37	8/3/2016 13:12:56	2.641	11.75	6.09	17.26
38	8/3/2016 13:12:57	2.64	11.75	6.09	17.26
39	8/3/2016 13:12:58	2.64	11.75	6.09	17.26
40	8/3/2016 13:12:59	2.64	11.75	6.09	17.26
41	8/3/2016 13:13:00	2.639	11.75	6.09	17.26
42	8/3/2016 13:13:01	2.639	11.75	6.09	17.26
43	8/3/2016 13:13:02	2.639	11.75	6.09	17.26
44	8/3/2016 13:13:03	2.638	11.75	6.08	17.27
45	8/3/2016 13:13:04	2.638	11.75	6.08	17.27
46	8/3/2016 13:13:05	2.638	11.81	6.08	17.27
47	8/3/2016 13:13:06	2.638	11.75	6.08	17.27

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 13:13:07	2.638	11.75	6.08	17.27
49	8/3/2016 13:13:08	2.637	11.75	6.08	17.27
50	8/3/2016 13:13:09	2.637	11.75	6.08	17.27
51	8/3/2016 13:13:10	2.637	11.81	6.08	17.27
52	8/3/2016 13:13:11	2.638	11.81	6.08	17.27
53	8/3/2016 13:13:12	2.637	11.81	6.08	17.27
54	8/3/2016 13:13:13	2.637	11.81	6.08	17.27
55	8/3/2016 13:13:14	2.637	11.81	6.08	17.27
56	8/3/2016 13:13:15	2.637	11.81	6.08	17.27
57	8/3/2016 13:13:16	2.637	11.81	6.08	17.27
58	8/3/2016 13:13:17	2.637	11.81	6.08	17.27
59	8/3/2016 13:13:18	2.637	11.81	6.08	17.27
60	8/3/2016 13:13:19	2.637	11.81	6.08	17.27
61	8/3/2016 13:13:20	2.636	11.81	6.08	17.27
62	8/3/2016 13:13:21	2.636	11.81	6.08	17.27
63	8/3/2016 13:13:22	2.636	11.81	6.08	17.27
64	8/3/2016 13:13:23	2.636	11.81	6.08	17.27
65	8/3/2016 13:13:24	2.636	11.81	6.08	17.27
66	8/3/2016 13:13:25	2.636	11.81	6.08	17.27
67	8/3/2016 13:13:26	2.636	11.81	6.08	17.27
68	8/3/2016 13:13:27	2.636	11.81	6.08	17.27
69	8/3/2016 13:13:28	2.635	11.81	6.08	17.27
70	8/3/2016 13:13:29	2.636	11.81	6.08	17.27
71	8/3/2016 13:13:30	2.636	11.81	6.08	17.27
72	8/3/2016 13:13:31	2.635	11.81	6.08	17.27
73	8/3/2016 13:13:32	2.636	11.81	6.08	17.27
74	8/3/2016 13:13:33	2.636	11.81	6.08	17.27
75	8/3/2016 13:13:34	2.635	11.81	6.08	17.27
76	8/3/2016 13:13:35	2.635	11.81	6.08	17.27
77	8/3/2016 13:13:36	2.635	11.81	6.08	17.27
78	8/3/2016 13:13:37	2.635	11.81	6.08	17.27
79	8/3/2016 13:13:38	2.635	11.81	6.08	17.27
80	8/3/2016 13:13:39	2.635	11.81	6.08	17.27
81	8/3/2016 13:13:40	2.635	11.81	6.08	17.27
82	8/3/2016 13:13:41	2.635	11.81	6.08	17.27
83	8/3/2016 13:13:42	2.635	11.81	6.08	17.27
84	8/3/2016 13:13:43	2.635	11.81	6.08	17.27
85	8/3/2016 13:13:44	2.635	11.81	6.08	17.27
86	8/3/2016 13:13:45	2.635	11.81	6.08	17.27
87	8/3/2016 13:13:46	2.635	11.81	6.08	17.27
88	8/3/2016 13:13:47	2.634	11.81	6.08	17.27
89	8/3/2016 13:13:48	2.635	11.88	6.08	17.27
90	8/3/2016 13:13:49	2.635	11.81	6.08	17.27
91	8/3/2016 13:13:50	2.635	11.81	6.08	17.27
92	8/3/2016 13:13:51	2.635	11.81	6.08	17.27
93	8/3/2016 13:13:52	2.635	11.81	6.08	17.27
94	8/3/2016 13:13:53	2.635	11.81	6.08	17.27
95	8/3/2016 13:13:54	2.635	11.81	6.08	17.27
96	8/3/2016 13:13:55	2.635	11.81	6.08	17.27
97	8/3/2016 13:13:56	2.635	11.81	6.08	17.27
98	8/3/2016 13:13:57	2.635	11.81	6.08	17.27
99	8/3/2016 13:13:58	2.635	11.81	6.08	17.27
100	8/3/2016 13:13:59	2.635	11.81	6.08	17.27
101	8/3/2016 13:14:00	2.635	11.81	6.08	17.27
102	8/3/2016 13:14:01	2.635	11.81	6.08	17.27
103	8/3/2016 13:14:02	2.635	11.81	6.08	17.27
104	8/3/2016 13:14:03	2.635	11.81	6.08	17.27
105	8/3/2016 13:14:04	2.635	11.88	6.08	17.27
106	8/3/2016 13:14:05	2.634	11.88	6.08	17.27
107	8/3/2016 13:14:06	2.635	11.81	6.08	17.27
108	8/3/2016 13:14:07	2.635	11.81	6.08	17.27
109	8/3/2016 13:14:08	2.634	11.81	6.08	17.27
110	8/3/2016 13:14:09	2.635	11.81	6.08	17.27
111	8/3/2016 13:14:10	2.634	11.88	6.08	17.27
112	8/3/2016 13:14:11	2.635	11.81	6.08	17.27
113	8/3/2016 13:14:12	2.634	11.88	6.08	17.27
114	8/3/2016 13:14:13	2.634	11.81	6.08	17.27
115	8/3/2016 13:14:14	2.634	11.81	6.08	17.27
116	8/3/2016 13:14:15	2.634	11.88	6.08	17.27
117	8/3/2016 13:14:16	2.634	11.81	6.08	17.27
118	8/3/2016 13:14:17	2.634	11.88	6.08	17.27
119	8/3/2016 13:14:18	2.634	11.88	6.08	17.27

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 13:14:19	2.634	11.88	6.08	17.27
121	8/3/2016 13:14:20	2.634	11.88	6.08	17.27
122	8/3/2016 13:14:21	2.634	11.88	6.08	17.27
123	8/3/2016 13:14:22	2.634	11.88	6.08	17.27
124	8/3/2016 13:14:23	2.634	11.88	6.08	17.27
125	8/3/2016 13:14:24	2.634	11.88	6.08	17.27
126	8/3/2016 13:14:25	2.634	11.88	6.08	17.27
127	8/3/2016 13:14:26	2.634	11.88	6.08	17.27
128	8/3/2016 13:14:27	2.634	11.88	6.08	17.27
129	8/3/2016 13:14:28	2.634	11.81	6.08	17.27
130	8/3/2016 13:14:29	2.634	11.88	6.08	17.27
131	8/3/2016 13:14:30	2.634	11.88	6.08	17.27
132	8/3/2016 13:14:31	2.634	11.81	6.08	17.27
133	8/3/2016 13:14:32	2.634	11.88	6.08	17.27
134	8/3/2016 13:14:33	2.634	11.88	6.08	17.27
135	8/3/2016 13:14:34	2.634	11.88	6.08	17.27
136	8/3/2016 13:14:35	2.635	11.88	6.08	17.27
137	8/3/2016 13:14:36	2.634	11.88	6.08	17.27
138	8/3/2016 13:14:37	2.634	11.81	6.08	17.27
139	8/3/2016 13:14:38	2.634	11.88	6.08	17.27
140	8/3/2016 13:14:39	2.634	11.88	6.08	17.27
141	8/3/2016 13:14:40	2.634	11.88	6.08	17.27
142	8/3/2016 13:14:41	2.634	11.88	6.08	17.27
143	8/3/2016 13:14:42	2.634	11.88	6.08	17.27
144	8/3/2016 13:14:43	2.634	11.88	6.08	17.27
145	8/3/2016 13:14:44	2.634	11.88	6.08	17.27
146	8/3/2016 13:14:45	2.634	11.88	6.08	17.27
147	8/3/2016 13:14:46	2.634	11.88	6.08	17.27
148	8/3/2016 13:14:47	2.634	11.88	6.08	17.27
149	8/3/2016 13:14:48	2.634	11.88	6.08	17.27
150	8/3/2016 13:14:49	2.634	11.88	6.08	17.27
151	8/3/2016 13:14:50	2.634	11.88	6.08	17.27
152	8/3/2016 13:14:51	2.634	11.88	6.08	17.27
153	8/3/2016 13:14:52	2.634	11.88	6.08	17.27
154	8/3/2016 13:14:53	2.634	11.88	6.08	17.27
155	8/3/2016 13:14:54	2.634	11.88	6.08	17.27
156	8/3/2016 13:14:55	2.633	11.88	6.07	17.28
157	8/3/2016 13:14:56	2.634	11.88	6.08	17.27
158	8/3/2016 13:14:57	2.634	11.88	6.08	17.27
159	8/3/2016 13:14:58	2.634	11.88	6.08	17.27
160	8/3/2016 13:14:59	2.634	11.88	6.08	17.27
161	8/3/2016 13:15:00	2.634	11.88	6.08	17.27
162	8/3/2016 13:15:01	2.634	11.88	6.08	17.27
163	8/3/2016 13:15:02	2.634	11.88	6.08	17.27
164	8/3/2016 13:15:03	2.634	11.88	6.08	17.27
165	8/3/2016 13:15:04	2.634	11.88	6.08	17.27
166	8/3/2016 13:15:05	2.634	11.88	6.08	17.27
167	8/3/2016 13:15:06	2.634	11.88	6.08	17.27
168	8/3/2016 13:15:07	2.634	11.88	6.08	17.27
169	8/3/2016 13:15:08	2.633	11.88	6.07	17.28
170	8/3/2016 13:15:09	2.634	11.88	6.08	17.27
171	8/3/2016 13:15:10	2.634	11.88	6.08	17.27
172	8/3/2016 13:15:11	2.634	11.88	6.08	17.27
173	8/3/2016 13:15:12	2.634	11.88	6.08	17.27
174	8/3/2016 13:15:13	2.633	11.88	6.07	17.28
175	8/3/2016 13:15:14	2.633	11.88	6.07	17.28
176	8/3/2016 13:15:15	2.634	11.88	6.08	17.27
177	8/3/2016 13:15:16	2.633	11.88	6.07	17.28
178	8/3/2016 13:15:17	2.634	11.88	6.08	17.27
179	8/3/2016 13:15:18	2.634	11.88	6.08	17.27
180	8/3/2016 13:15:19	2.634	11.88	6.08	17.27
181	8/3/2016 13:15:20	2.633	11.88	6.07	17.28
182	8/3/2016 13:15:21	2.634	11.88	6.08	17.27
183	8/3/2016 13:15:22	2.634	11.88	6.08	17.27
184	8/3/2016 13:15:23	2.634	11.88	6.08	17.27
185	8/3/2016 13:15:24	2.634	11.88	6.08	17.27
186	8/3/2016 13:15:25	2.633	11.88	6.07	17.28
187	8/3/2016 13:15:26	2.634	11.88	6.08	17.27
188	8/3/2016 13:15:27	2.634	11.88	6.08	17.27
189	8/3/2016 13:15:28	2.633	11.88	6.07	17.28
190	8/3/2016 13:15:29	2.633	11.88	6.07	17.28
191	8/3/2016 13:15:30	2.633	11.88	6.07	17.28

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 13:15:31	2.634	11.88	6.08	17.27
193	8/3/2016 13:15:32	2.634	11.88	6.08	17.27
194	8/3/2016 13:15:33	2.634	11.88	6.08	17.27
195	8/3/2016 13:15:34	2.634	11.88	6.08	17.27
196	8/3/2016 13:15:35	2.634	11.88	6.08	17.27
197	8/3/2016 13:15:36	2.634	11.88	6.08	17.27
198	8/3/2016 13:15:37	2.634	11.88	6.08	17.27
199	8/3/2016 13:15:38	2.634	11.88	6.08	17.27
200	8/3/2016 13:15:39	2.634	11.88	6.08	17.27
201	8/3/2016 13:15:49	2.634	11.75	6.08	17.27
202	8/3/2016 13:15:59	2.634	11.69	6.08	17.27
203	8/3/2016 13:16:09	2.635	11.81	6.08	17.27
204	8/3/2016 13:16:19	2.634	11.81	6.08	17.27
205	8/3/2016 13:16:29	2.634	11.81	6.08	17.27
206	8/3/2016 13:16:39	2.633	11.81	6.07	17.28
207	8/3/2016 13:16:49	2.633	11.81	6.07	17.28
208	8/3/2016 13:16:59	2.634	11.81	6.08	17.27
209	8/3/2016 13:17:09	2.634	11.81	6.08	17.27
210	8/3/2016 13:17:19	2.633	11.69	6.07	17.28
211	8/3/2016 13:17:29	2.632	11.63	6.07	17.28
212	8/3/2016 13:17:39	2.633	11.63	6.07	17.28
213	8/3/2016 13:17:49	2.635	11.63	6.08	17.27
214	8/3/2016 13:17:59	2.635	11.75	6.08	17.27

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-11
Test: Slug Out

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-11 Slug Out
# Records	301

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.212	11.5
Maximum	2.635	11.75
Mean	2.627	11.7
Variance	0.0011	0.001
Std Deviation	0.0336	0.034

Measured DTW (ft btoc) = 17.28

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 13:19:49	2.634	11.63	6.08	17.28
2	8/3/2016 13:19:50	2.634	11.63	6.08	17.28
3	8/3/2016 13:19:51	2.634	11.63	6.08	17.28
4	8/3/2016 13:19:52	2.612	11.63	6.02	17.34
5	8/3/2016 13:19:53	2.212	11.63	5.10	18.26
6	8/3/2016 13:19:54	2.344	11.63	5.41	17.95
7	8/3/2016 13:19:55	2.432	11.63	5.61	17.75
8	8/3/2016 13:19:56	2.488	11.63	5.74	17.62
9	8/3/2016 13:19:57	2.529	11.63	5.83	17.53
10	8/3/2016 13:19:58	2.555	11.63	5.89	17.47
11	8/3/2016 13:19:59	2.575	11.63	5.94	17.42
12	8/3/2016 13:20:00	2.588	11.63	5.97	17.39
13	8/3/2016 13:20:01	2.598	11.63	5.99	17.37
14	8/3/2016 13:20:02	2.605	11.63	6.01	17.35
15	8/3/2016 13:20:03	2.611	11.69	6.02	17.34
16	8/3/2016 13:20:04	2.615	11.69	6.03	17.33
17	8/3/2016 13:20:05	2.619	11.69	6.04	17.32
18	8/3/2016 13:20:06	2.622	11.69	6.05	17.31
19	8/3/2016 13:20:07	2.622	11.69	6.05	17.31
20	8/3/2016 13:20:08	2.625	11.69	6.05	17.31
21	8/3/2016 13:20:09	2.627	11.69	6.06	17.30
22	8/3/2016 13:20:10	2.627	11.69	6.06	17.30
23	8/3/2016 13:20:11	2.628	11.69	6.06	17.30
24	8/3/2016 13:20:12	2.629	11.69	6.06	17.30
25	8/3/2016 13:20:13	2.629	11.69	6.06	17.30
26	8/3/2016 13:20:14	2.629	11.69	6.06	17.30
27	8/3/2016 13:20:15	2.63	11.69	6.07	17.29
28	8/3/2016 13:20:16	2.63	11.69	6.07	17.29
29	8/3/2016 13:20:17	2.63	11.69	6.07	17.29
30	8/3/2016 13:20:18	2.631	11.69	6.07	17.29
31	8/3/2016 13:20:19	2.631	11.69	6.07	17.29
32	8/3/2016 13:20:20	2.631	11.69	6.07	17.29
33	8/3/2016 13:20:21	2.631	11.69	6.07	17.29
34	8/3/2016 13:20:22	2.631	11.69	6.07	17.29
35	8/3/2016 13:20:23	2.632	11.69	6.07	17.29
36	8/3/2016 13:20:24	2.631	11.69	6.07	17.29
37	8/3/2016 13:20:25	2.631	11.69	6.07	17.29
38	8/3/2016 13:20:26	2.631	11.69	6.07	17.29
39	8/3/2016 13:20:27	2.631	11.69	6.07	17.29
40	8/3/2016 13:20:28	2.631	11.69	6.07	17.29
41	8/3/2016 13:20:29	2.632	11.69	6.07	17.29
42	8/3/2016 13:20:30	2.632	11.69	6.07	17.29
43	8/3/2016 13:20:31	2.632	11.69	6.07	17.29
44	8/3/2016 13:20:32	2.632	11.69	6.07	17.29
45	8/3/2016 13:20:33	2.632	11.69	6.07	17.29
46	8/3/2016 13:20:34	2.632	11.69	6.07	17.29
47	8/3/2016 13:20:35	2.632	11.69	6.07	17.29

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 13:20:36	2.631	11.69	6.07	17.29
49	8/3/2016 13:20:37	2.632	11.69	6.07	17.29
50	8/3/2016 13:20:38	2.631	11.69	6.07	17.29
51	8/3/2016 13:20:39	2.632	11.69	6.07	17.29
52	8/3/2016 13:20:40	2.632	11.69	6.07	17.29
53	8/3/2016 13:20:41	2.631	11.69	6.07	17.29
54	8/3/2016 13:20:42	2.632	11.69	6.07	17.29
55	8/3/2016 13:20:43	2.632	11.69	6.07	17.29
56	8/3/2016 13:20:44	2.631	11.75	6.07	17.29
57	8/3/2016 13:20:45	2.632	11.75	6.07	17.29
58	8/3/2016 13:20:46	2.632	11.75	6.07	17.29
59	8/3/2016 13:20:47	2.632	11.75	6.07	17.29
60	8/3/2016 13:20:48	2.632	11.69	6.07	17.29
61	8/3/2016 13:20:49	2.631	11.75	6.07	17.29
62	8/3/2016 13:20:50	2.631	11.69	6.07	17.29
63	8/3/2016 13:20:51	2.632	11.69	6.07	17.29
64	8/3/2016 13:20:52	2.632	11.75	6.07	17.29
65	8/3/2016 13:20:53	2.632	11.69	6.07	17.29
66	8/3/2016 13:20:54	2.632	11.75	6.07	17.29
67	8/3/2016 13:20:55	2.632	11.69	6.07	17.29
68	8/3/2016 13:20:56	2.632	11.69	6.07	17.29
69	8/3/2016 13:20:57	2.632	11.69	6.07	17.29
70	8/3/2016 13:20:58	2.631	11.69	6.07	17.29
71	8/3/2016 13:20:59	2.632	11.75	6.07	17.29
72	8/3/2016 13:21:00	2.632	11.69	6.07	17.29
73	8/3/2016 13:21:01	2.632	11.69	6.07	17.29
74	8/3/2016 13:21:02	2.631	11.75	6.07	17.29
75	8/3/2016 13:21:03	2.632	11.75	6.07	17.29
76	8/3/2016 13:21:04	2.632	11.69	6.07	17.29
77	8/3/2016 13:21:05	2.632	11.75	6.07	17.29
78	8/3/2016 13:21:06	2.632	11.69	6.07	17.29
79	8/3/2016 13:21:07	2.632	11.69	6.07	17.29
80	8/3/2016 13:21:08	2.632	11.69	6.07	17.29
81	8/3/2016 13:21:09	2.632	11.75	6.07	17.29
82	8/3/2016 13:21:10	2.632	11.69	6.07	17.29
83	8/3/2016 13:21:11	2.632	11.75	6.07	17.29
84	8/3/2016 13:21:12	2.632	11.75	6.07	17.29
85	8/3/2016 13:21:13	2.632	11.69	6.07	17.29
86	8/3/2016 13:21:14	2.632	11.75	6.07	17.29
87	8/3/2016 13:21:15	2.632	11.75	6.07	17.29
88	8/3/2016 13:21:16	2.632	11.69	6.07	17.29
89	8/3/2016 13:21:17	2.633	11.69	6.07	17.29
90	8/3/2016 13:21:18	2.632	11.75	6.07	17.29
91	8/3/2016 13:21:19	2.633	11.69	6.07	17.29
92	8/3/2016 13:21:20	2.633	11.69	6.07	17.29
93	8/3/2016 13:21:21	2.633	11.75	6.07	17.29
94	8/3/2016 13:21:22	2.633	11.75	6.07	17.29
95	8/3/2016 13:21:23	2.633	11.75	6.07	17.29
96	8/3/2016 13:21:24	2.633	11.69	6.07	17.29
97	8/3/2016 13:21:25	2.634	11.69	6.08	17.28
98	8/3/2016 13:21:26	2.633	11.69	6.07	17.29
99	8/3/2016 13:21:27	2.634	11.75	6.08	17.28
100	8/3/2016 13:21:28	2.634	11.69	6.08	17.28
101	8/3/2016 13:21:29	2.634	11.69	6.08	17.28
102	8/3/2016 13:21:30	2.634	11.75	6.08	17.28
103	8/3/2016 13:21:31	2.634	11.69	6.08	17.28
104	8/3/2016 13:21:32	2.633	11.75	6.07	17.29
105	8/3/2016 13:21:33	2.634	11.69	6.08	17.28
106	8/3/2016 13:21:34	2.634	11.75	6.08	17.28
107	8/3/2016 13:21:35	2.634	11.75	6.08	17.28
108	8/3/2016 13:21:36	2.634	11.75	6.08	17.28
109	8/3/2016 13:21:37	2.634	11.69	6.08	17.28
110	8/3/2016 13:21:38	2.634	11.75	6.08	17.28
111	8/3/2016 13:21:39	2.634	11.69	6.08	17.28
112	8/3/2016 13:21:40	2.634	11.75	6.08	17.28
113	8/3/2016 13:21:41	2.634	11.69	6.08	17.28
114	8/3/2016 13:21:42	2.635	11.75	6.08	17.28
115	8/3/2016 13:21:43	2.634	11.69	6.08	17.28
116	8/3/2016 13:21:44	2.634	11.75	6.08	17.28
117	8/3/2016 13:21:45	2.635	11.69	6.08	17.28
118	8/3/2016 13:21:46	2.634	11.69	6.08	17.28
119	8/3/2016 13:21:47	2.634	11.75	6.08	17.28

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 13:21:48	2.634	11.69	6.08	17.28
121	8/3/2016 13:21:49	2.634	11.69	6.08	17.28
122	8/3/2016 13:21:50	2.635	11.75	6.08	17.28
123	8/3/2016 13:21:51	2.634	11.69	6.08	17.28
124	8/3/2016 13:21:52	2.634	11.69	6.08	17.28
125	8/3/2016 13:21:53	2.634	11.69	6.08	17.28
126	8/3/2016 13:21:54	2.634	11.75	6.08	17.28
127	8/3/2016 13:21:55	2.634	11.75	6.08	17.28
128	8/3/2016 13:21:56	2.634	11.75	6.08	17.28
129	8/3/2016 13:21:57	2.633	11.75	6.07	17.29
130	8/3/2016 13:21:58	2.634	11.69	6.08	17.28
131	8/3/2016 13:21:59	2.633	11.69	6.07	17.29
132	8/3/2016 13:22:00	2.634	11.75	6.08	17.28
133	8/3/2016 13:22:01	2.634	11.75	6.08	17.28
134	8/3/2016 13:22:02	2.634	11.75	6.08	17.28
135	8/3/2016 13:22:03	2.633	11.75	6.07	17.29
136	8/3/2016 13:22:04	2.633	11.69	6.07	17.29
137	8/3/2016 13:22:05	2.633	11.69	6.07	17.29
138	8/3/2016 13:22:06	2.633	11.75	6.07	17.29
139	8/3/2016 13:22:07	2.633	11.75	6.07	17.29
140	8/3/2016 13:22:08	2.633	11.75	6.07	17.29
141	8/3/2016 13:22:09	2.633	11.69	6.07	17.29
142	8/3/2016 13:22:10	2.633	11.75	6.07	17.29
143	8/3/2016 13:22:11	2.633	11.75	6.07	17.29
144	8/3/2016 13:22:12	2.632	11.69	6.07	17.29
145	8/3/2016 13:22:13	2.633	11.69	6.07	17.29
146	8/3/2016 13:22:14	2.633	11.75	6.07	17.29
147	8/3/2016 13:22:15	2.633	11.75	6.07	17.29
148	8/3/2016 13:22:16	2.633	11.69	6.07	17.29
149	8/3/2016 13:22:17	2.633	11.75	6.07	17.29
150	8/3/2016 13:22:18	2.632	11.75	6.07	17.29
151	8/3/2016 13:22:19	2.633	11.69	6.07	17.29
152	8/3/2016 13:22:20	2.633	11.69	6.07	17.29
153	8/3/2016 13:22:21	2.633	11.69	6.07	17.29
154	8/3/2016 13:22:22	2.632	11.75	6.07	17.29
155	8/3/2016 13:22:23	2.633	11.75	6.07	17.29
156	8/3/2016 13:22:24	2.633	11.69	6.07	17.29
157	8/3/2016 13:22:25	2.633	11.75	6.07	17.29
158	8/3/2016 13:22:26	2.633	11.69	6.07	17.29
159	8/3/2016 13:22:27	2.633	11.75	6.07	17.29
160	8/3/2016 13:22:28	2.633	11.75	6.07	17.29
161	8/3/2016 13:22:29	2.633	11.75	6.07	17.29
162	8/3/2016 13:22:30	2.633	11.75	6.07	17.29
163	8/3/2016 13:22:31	2.632	11.75	6.07	17.29
164	8/3/2016 13:22:32	2.632	11.75	6.07	17.29
165	8/3/2016 13:22:33	2.633	11.69	6.07	17.29
166	8/3/2016 13:22:34	2.633	11.69	6.07	17.29
167	8/3/2016 13:22:35	2.633	11.69	6.07	17.29
168	8/3/2016 13:22:36	2.633	11.75	6.07	17.29
169	8/3/2016 13:22:37	2.633	11.69	6.07	17.29
170	8/3/2016 13:22:38	2.633	11.69	6.07	17.29
171	8/3/2016 13:22:39	2.633	11.75	6.07	17.29
172	8/3/2016 13:22:40	2.633	11.69	6.07	17.29
173	8/3/2016 13:22:41	2.633	11.75	6.07	17.29
174	8/3/2016 13:22:42	2.633	11.75	6.07	17.29
175	8/3/2016 13:22:43	2.633	11.75	6.07	17.29
176	8/3/2016 13:22:44	2.633	11.75	6.07	17.29
177	8/3/2016 13:22:45	2.633	11.69	6.07	17.29
178	8/3/2016 13:22:46	2.633	11.69	6.07	17.29
179	8/3/2016 13:22:47	2.633	11.69	6.07	17.29
180	8/3/2016 13:22:48	2.632	11.75	6.07	17.29
181	8/3/2016 13:22:49	2.633	11.75	6.07	17.29
182	8/3/2016 13:22:50	2.633	11.75	6.07	17.29
183	8/3/2016 13:22:51	2.632	11.69	6.07	17.29
184	8/3/2016 13:22:52	2.632	11.69	6.07	17.29
185	8/3/2016 13:22:53	2.633	11.69	6.07	17.29
186	8/3/2016 13:22:54	2.632	11.75	6.07	17.29
187	8/3/2016 13:22:55	2.632	11.69	6.07	17.29
188	8/3/2016 13:22:56	2.632	11.69	6.07	17.29
189	8/3/2016 13:22:57	2.632	11.69	6.07	17.29
190	8/3/2016 13:22:58	2.633	11.69	6.07	17.29
191	8/3/2016 13:22:59	2.633	11.69	6.07	17.29

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 13:23:00	2.632	11.75	6.07	17.29
193	8/3/2016 13:23:01	2.632	11.69	6.07	17.29
194	8/3/2016 13:23:02	2.632	11.69	6.07	17.29
195	8/3/2016 13:23:03	2.632	11.69	6.07	17.29
196	8/3/2016 13:23:04	2.632	11.69	6.07	17.29
197	8/3/2016 13:23:05	2.632	11.75	6.07	17.29
198	8/3/2016 13:23:06	2.632	11.69	6.07	17.29
199	8/3/2016 13:23:07	2.632	11.75	6.07	17.29
200	8/3/2016 13:23:08	2.632	11.69	6.07	17.29
201	8/3/2016 13:23:09	2.632	11.75	6.07	17.29
202	8/3/2016 13:23:10	2.632	11.75	6.07	17.29
203	8/3/2016 13:23:11	2.632	11.69	6.07	17.29
204	8/3/2016 13:23:12	2.632	11.69	6.07	17.29
205	8/3/2016 13:23:13	2.632	11.75	6.07	17.29
206	8/3/2016 13:23:14	2.632	11.75	6.07	17.29
207	8/3/2016 13:23:15	2.632	11.69	6.07	17.29
208	8/3/2016 13:23:16	2.632	11.69	6.07	17.29
209	8/3/2016 13:23:17	2.632	11.69	6.07	17.29
210	8/3/2016 13:23:18	2.632	11.75	6.07	17.29
211	8/3/2016 13:23:19	2.632	11.69	6.07	17.29
212	8/3/2016 13:23:20	2.632	11.75	6.07	17.29
213	8/3/2016 13:23:21	2.632	11.69	6.07	17.29
214	8/3/2016 13:23:22	2.632	11.75	6.07	17.29
215	8/3/2016 13:23:23	2.632	11.69	6.07	17.29
216	8/3/2016 13:23:24	2.632	11.69	6.07	17.29
217	8/3/2016 13:23:25	2.632	11.69	6.07	17.29
218	8/3/2016 13:23:26	2.632	11.69	6.07	17.29
219	8/3/2016 13:23:27	2.632	11.75	6.07	17.29
220	8/3/2016 13:23:28	2.632	11.75	6.07	17.29
221	8/3/2016 13:23:29	2.632	11.69	6.07	17.29
222	8/3/2016 13:23:30	2.631	11.75	6.07	17.29
223	8/3/2016 13:23:31	2.632	11.69	6.07	17.29
224	8/3/2016 13:23:32	2.632	11.69	6.07	17.29
225	8/3/2016 13:23:33	2.632	11.69	6.07	17.29
226	8/3/2016 13:23:34	2.632	11.69	6.07	17.29
227	8/3/2016 13:23:35	2.632	11.69	6.07	17.29
228	8/3/2016 13:23:36	2.632	11.69	6.07	17.29
229	8/3/2016 13:23:37	2.632	11.75	6.07	17.29
230	8/3/2016 13:23:38	2.632	11.69	6.07	17.29
231	8/3/2016 13:23:39	2.632	11.75	6.07	17.29
232	8/3/2016 13:23:40	2.632	11.69	6.07	17.29
233	8/3/2016 13:23:41	2.632	11.69	6.07	17.29
234	8/3/2016 13:23:42	2.632	11.69	6.07	17.29
235	8/3/2016 13:23:43	2.632	11.69	6.07	17.29
236	8/3/2016 13:23:44	2.632	11.75	6.07	17.29
237	8/3/2016 13:23:45	2.632	11.69	6.07	17.29
238	8/3/2016 13:23:46	2.632	11.69	6.07	17.29
239	8/3/2016 13:23:47	2.633	11.69	6.07	17.29
240	8/3/2016 13:23:48	2.632	11.69	6.07	17.29
241	8/3/2016 13:23:49	2.632	11.69	6.07	17.29
242	8/3/2016 13:23:50	2.632	11.69	6.07	17.29
243	8/3/2016 13:23:51	2.632	11.75	6.07	17.29
244	8/3/2016 13:23:52	2.633	11.69	6.07	17.29
245	8/3/2016 13:23:53	2.633	11.69	6.07	17.29
246	8/3/2016 13:23:54	2.632	11.75	6.07	17.29
247	8/3/2016 13:23:55	2.633	11.69	6.07	17.29
248	8/3/2016 13:23:56	2.632	11.69	6.07	17.29
249	8/3/2016 13:23:57	2.632	11.69	6.07	17.29
250	8/3/2016 13:23:58	2.632	11.69	6.07	17.29
251	8/3/2016 13:23:59	2.632	11.69	6.07	17.29
252	8/3/2016 13:24:00	2.632	11.69	6.07	17.29
253	8/3/2016 13:24:01	2.632	11.69	6.07	17.29
254	8/3/2016 13:24:02	2.632	11.69	6.07	17.29
255	8/3/2016 13:24:03	2.632	11.69	6.07	17.29
256	8/3/2016 13:24:04	2.632	11.69	6.07	17.29
257	8/3/2016 13:24:05	2.632	11.69	6.07	17.29
258	8/3/2016 13:24:06	2.632	11.69	6.07	17.29
259	8/3/2016 13:24:07	2.632	11.69	6.07	17.29
260	8/3/2016 13:24:08	2.632	11.75	6.07	17.29
261	8/3/2016 13:24:09	2.632	11.69	6.07	17.29
262	8/3/2016 13:24:10	2.632	11.69	6.07	17.29
263	8/3/2016 13:24:11	2.632	11.75	6.07	17.29

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
264	8/3/2016 13:24:12	2.632	11.75	6.07	17.29
265	8/3/2016 13:24:13	2.631	11.69	6.07	17.29
266	8/3/2016 13:24:14	2.632	11.69	6.07	17.29
267	8/3/2016 13:24:15	2.632	11.69	6.07	17.29
268	8/3/2016 13:24:16	2.632	11.75	6.07	17.29
269	8/3/2016 13:24:17	2.632	11.69	6.07	17.29
270	8/3/2016 13:24:18	2.632	11.69	6.07	17.29
271	8/3/2016 13:24:19	2.632	11.69	6.07	17.29
272	8/3/2016 13:24:20	2.632	11.69	6.07	17.29
273	8/3/2016 13:24:21	2.632	11.69	6.07	17.29
274	8/3/2016 13:24:22	2.632	11.69	6.07	17.29
275	8/3/2016 13:24:23	2.632	11.69	6.07	17.29
276	8/3/2016 13:24:24	2.632	11.75	6.07	17.29
277	8/3/2016 13:24:25	2.632	11.69	6.07	17.29
278	8/3/2016 13:24:26	2.632	11.69	6.07	17.29
279	8/3/2016 13:24:27	2.632	11.69	6.07	17.29
280	8/3/2016 13:24:28	2.632	11.69	6.07	17.29
281	8/3/2016 13:24:29	2.632	11.69	6.07	17.29
282	8/3/2016 13:24:30	2.632	11.69	6.07	17.29
283	8/3/2016 13:24:31	2.632	11.69	6.07	17.29
284	8/3/2016 13:24:32	2.631	11.69	6.07	17.29
285	8/3/2016 13:24:33	2.631	11.69	6.07	17.29
286	8/3/2016 13:24:34	2.631	11.69	6.07	17.29
287	8/3/2016 13:24:35	2.631	11.69	6.07	17.29
288	8/3/2016 13:24:36	2.631	11.69	6.07	17.29
289	8/3/2016 13:24:37	2.631	11.69	6.07	17.29
290	8/3/2016 13:24:38	2.631	11.69	6.07	17.29
291	8/3/2016 13:24:39	2.631	11.69	6.07	17.29
292	8/3/2016 13:24:40	2.631	11.69	6.07	17.29
293	8/3/2016 13:24:41	2.631	11.69	6.07	17.29
294	8/3/2016 13:24:42	2.631	11.69	6.07	17.29
295	8/3/2016 13:24:43	2.631	11.69	6.07	17.29
296	8/3/2016 13:24:44	2.631	11.69	6.07	17.29
297	8/3/2016 13:24:45	2.631	11.69	6.07	17.29
298	8/3/2016 13:24:46	2.631	11.69	6.07	17.29
299	8/3/2016 13:24:47	2.631	11.69	6.07	17.29
300	8/3/2016 13:24:48	2.631	11.69	6.07	17.29
301	8/3/2016 13:25:18	2.632	11.5	6.07	17.29

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-12S
Test: Slug In 2

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-12S Slug in 2
# Records	208

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	1.591	10.75
Maximum	1.768	11
Mean	1.596	10.91
Variance	0.0002	0.003
Std Deviation	0.0156	0.056

Measured DTW (ft btoc) = 21.71

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 10:47:02	1.591	10.75	3.67	21.71
2	8/3/2016 10:47:03	1.591	10.75	3.67	21.71
3	8/3/2016 10:47:04	1.592	10.75	3.67	21.71
4	8/3/2016 10:47:05	1.768	10.75	4.08	21.30
5	8/3/2016 10:47:06	1.686	10.81	3.89	21.49
6	8/3/2016 10:47:07	1.652	10.81	3.81	21.57
7	8/3/2016 10:47:08	1.639	10.81	3.78	21.60
8	8/3/2016 10:47:09	1.631	10.81	3.76	21.62
9	8/3/2016 10:47:10	1.625	10.81	3.75	21.63
10	8/3/2016 10:47:11	1.622	10.81	3.74	21.64
11	8/3/2016 10:47:12	1.619	10.81	3.73	21.65
12	8/3/2016 10:47:13	1.617	10.81	3.73	21.65
13	8/3/2016 10:47:14	1.614	10.81	3.72	21.66
14	8/3/2016 10:47:15	1.612	10.81	3.72	21.66
15	8/3/2016 10:47:16	1.611	10.81	3.72	21.66
16	8/3/2016 10:47:17	1.61	10.81	3.71	21.67
17	8/3/2016 10:47:18	1.609	10.81	3.71	21.67
18	8/3/2016 10:47:19	1.607	10.81	3.71	21.67
19	8/3/2016 10:47:20	1.607	10.81	3.71	21.67
20	8/3/2016 10:47:21	1.606	10.81	3.70	21.68
21	8/3/2016 10:47:22	1.604	10.81	3.70	21.68
22	8/3/2016 10:47:23	1.603	10.81	3.70	21.68
23	8/3/2016 10:47:24	1.602	10.81	3.70	21.68
24	8/3/2016 10:47:25	1.602	10.81	3.70	21.68
25	8/3/2016 10:47:26	1.601	10.88	3.69	21.69
26	8/3/2016 10:47:27	1.601	10.88	3.69	21.69
27	8/3/2016 10:47:28	1.601	10.88	3.69	21.69
28	8/3/2016 10:47:29	1.6	10.88	3.69	21.69
29	8/3/2016 10:47:30	1.6	10.88	3.69	21.69
30	8/3/2016 10:47:31	1.599	10.88	3.69	21.69
31	8/3/2016 10:47:32	1.599	10.81	3.69	21.69
32	8/3/2016 10:47:33	1.599	10.88	3.69	21.69
33	8/3/2016 10:47:34	1.599	10.88	3.69	21.69
34	8/3/2016 10:47:35	1.598	10.88	3.69	21.69
35	8/3/2016 10:47:36	1.598	10.88	3.69	21.69
36	8/3/2016 10:47:37	1.598	10.88	3.69	21.69
37	8/3/2016 10:47:38	1.597	10.88	3.68	21.70
38	8/3/2016 10:47:39	1.597	10.88	3.68	21.70
39	8/3/2016 10:47:40	1.596	10.88	3.68	21.70
40	8/3/2016 10:47:41	1.596	10.88	3.68	21.70
41	8/3/2016 10:47:42	1.597	10.88	3.68	21.70
42	8/3/2016 10:47:43	1.596	10.88	3.68	21.70
43	8/3/2016 10:47:44	1.596	10.88	3.68	21.70
44	8/3/2016 10:47:45	1.596	10.88	3.68	21.70
45	8/3/2016 10:47:46	1.596	10.88	3.68	21.70
46	8/3/2016 10:47:47	1.595	10.88	3.68	21.70
47	8/3/2016 10:47:48	1.595	10.88	3.68	21.70

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 10:47:49	1.595	10.88	3.68	21.70
49	8/3/2016 10:47:50	1.595	10.88	3.68	21.70
50	8/3/2016 10:47:51	1.595	10.88	3.68	21.70
51	8/3/2016 10:47:52	1.595	10.88	3.68	21.70
52	8/3/2016 10:47:53	1.595	10.88	3.68	21.70
53	8/3/2016 10:47:54	1.595	10.88	3.68	21.70
54	8/3/2016 10:47:55	1.594	10.88	3.68	21.70
55	8/3/2016 10:47:56	1.594	10.88	3.68	21.70
56	8/3/2016 10:47:57	1.594	10.88	3.68	21.70
57	8/3/2016 10:47:58	1.594	10.88	3.68	21.70
58	8/3/2016 10:47:59	1.594	10.88	3.68	21.70
59	8/3/2016 10:48:00	1.594	10.88	3.68	21.70
60	8/3/2016 10:48:01	1.594	10.88	3.68	21.70
61	8/3/2016 10:48:02	1.594	10.88	3.68	21.70
62	8/3/2016 10:48:03	1.593	10.88	3.67	21.71
63	8/3/2016 10:48:04	1.593	10.88	3.67	21.71
64	8/3/2016 10:48:05	1.593	10.88	3.67	21.71
65	8/3/2016 10:48:06	1.593	10.94	3.67	21.71
66	8/3/2016 10:48:07	1.593	10.88	3.67	21.71
67	8/3/2016 10:48:08	1.593	10.94	3.67	21.71
68	8/3/2016 10:48:09	1.592	10.88	3.67	21.71
69	8/3/2016 10:48:10	1.593	10.88	3.67	21.71
70	8/3/2016 10:48:11	1.593	10.94	3.67	21.71
71	8/3/2016 10:48:12	1.593	10.94	3.67	21.71
72	8/3/2016 10:48:13	1.593	10.94	3.67	21.71
73	8/3/2016 10:48:14	1.592	10.94	3.67	21.71
74	8/3/2016 10:48:15	1.593	10.94	3.67	21.71
75	8/3/2016 10:48:16	1.593	10.94	3.67	21.71
76	8/3/2016 10:48:17	1.592	10.94	3.67	21.71
77	8/3/2016 10:48:18	1.592	10.88	3.67	21.71
78	8/3/2016 10:48:19	1.593	10.94	3.67	21.71
79	8/3/2016 10:48:20	1.593	10.94	3.67	21.71
80	8/3/2016 10:48:21	1.593	10.94	3.67	21.71
81	8/3/2016 10:48:22	1.592	10.94	3.67	21.71
82	8/3/2016 10:48:23	1.592	10.94	3.67	21.71
83	8/3/2016 10:48:24	1.593	10.94	3.67	21.71
84	8/3/2016 10:48:25	1.594	10.94	3.68	21.70
85	8/3/2016 10:48:26	1.594	10.94	3.68	21.70
86	8/3/2016 10:48:27	1.593	10.94	3.67	21.71
87	8/3/2016 10:48:28	1.593	10.94	3.67	21.71
88	8/3/2016 10:48:29	1.593	10.94	3.67	21.71
89	8/3/2016 10:48:30	1.593	10.94	3.67	21.71
90	8/3/2016 10:48:31	1.593	10.94	3.67	21.71
91	8/3/2016 10:48:32	1.593	10.94	3.67	21.71
92	8/3/2016 10:48:33	1.593	10.94	3.67	21.71
93	8/3/2016 10:48:34	1.593	10.94	3.67	21.71
94	8/3/2016 10:48:35	1.593	10.94	3.67	21.71
95	8/3/2016 10:48:36	1.593	10.94	3.67	21.71
96	8/3/2016 10:48:37	1.593	10.94	3.67	21.71
97	8/3/2016 10:48:38	1.593	10.94	3.67	21.71
98	8/3/2016 10:48:39	1.592	10.94	3.67	21.71
99	8/3/2016 10:48:40	1.592	10.94	3.67	21.71
100	8/3/2016 10:48:41	1.592	10.94	3.67	21.71
101	8/3/2016 10:48:42	1.592	10.94	3.67	21.71
102	8/3/2016 10:48:43	1.592	10.94	3.67	21.71
103	8/3/2016 10:48:44	1.592	10.94	3.67	21.71
104	8/3/2016 10:48:45	1.592	10.94	3.67	21.71
105	8/3/2016 10:48:46	1.592	10.94	3.67	21.71
106	8/3/2016 10:48:47	1.592	10.94	3.67	21.71
107	8/3/2016 10:48:48	1.591	10.94	3.67	21.71
108	8/3/2016 10:48:49	1.592	10.94	3.67	21.71
109	8/3/2016 10:48:50	1.592	10.94	3.67	21.71
110	8/3/2016 10:48:51	1.591	10.94	3.67	21.71
111	8/3/2016 10:48:52	1.591	10.94	3.67	21.71
112	8/3/2016 10:48:53	1.592	10.94	3.67	21.71
113	8/3/2016 10:48:54	1.592	10.94	3.67	21.71
114	8/3/2016 10:48:55	1.592	10.94	3.67	21.71
115	8/3/2016 10:48:56	1.592	10.94	3.67	21.71
116	8/3/2016 10:48:57	1.592	10.94	3.67	21.71
117	8/3/2016 10:48:58	1.592	10.94	3.67	21.71
118	8/3/2016 10:48:59	1.592	10.94	3.67	21.71
119	8/3/2016 10:49:00	1.592	10.94	3.67	21.71

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 10:49:01	1.592	10.94	3.67	21.71
121	8/3/2016 10:49:02	1.591	10.94	3.67	21.71
122	8/3/2016 10:49:03	1.591	10.94	3.67	21.71
123	8/3/2016 10:49:04	1.592	10.94	3.67	21.71
124	8/3/2016 10:49:05	1.591	10.94	3.67	21.71
125	8/3/2016 10:49:06	1.591	10.94	3.67	21.71
126	8/3/2016 10:49:07	1.591	10.94	3.67	21.71
127	8/3/2016 10:49:08	1.591	10.94	3.67	21.71
128	8/3/2016 10:49:09	1.591	10.94	3.67	21.71
129	8/3/2016 10:49:10	1.592	10.94	3.67	21.71
130	8/3/2016 10:49:11	1.591	10.94	3.67	21.71
131	8/3/2016 10:49:12	1.592	10.94	3.67	21.71
132	8/3/2016 10:49:13	1.592	10.94	3.67	21.71
133	8/3/2016 10:49:14	1.591	10.94	3.67	21.71
134	8/3/2016 10:49:15	1.591	10.94	3.67	21.71
135	8/3/2016 10:49:16	1.591	10.94	3.67	21.71
136	8/3/2016 10:49:17	1.591	10.94	3.67	21.71
137	8/3/2016 10:49:18	1.592	10.94	3.67	21.71
138	8/3/2016 10:49:19	1.592	11	3.67	21.71
139	8/3/2016 10:49:20	1.592	10.94	3.67	21.71
140	8/3/2016 10:49:21	1.592	10.94	3.67	21.71
141	8/3/2016 10:49:22	1.592	10.94	3.67	21.71
142	8/3/2016 10:49:23	1.592	10.94	3.67	21.71
143	8/3/2016 10:49:24	1.592	10.94	3.67	21.71
144	8/3/2016 10:49:25	1.592	10.94	3.67	21.71
145	8/3/2016 10:49:26	1.592	10.94	3.67	21.71
146	8/3/2016 10:49:27	1.592	10.94	3.67	21.71
147	8/3/2016 10:49:28	1.592	10.94	3.67	21.71
148	8/3/2016 10:49:29	1.592	10.94	3.67	21.71
149	8/3/2016 10:49:30	1.591	10.94	3.67	21.71
150	8/3/2016 10:49:31	1.592	10.94	3.67	21.71
151	8/3/2016 10:49:32	1.592	10.94	3.67	21.71
152	8/3/2016 10:49:33	1.592	10.94	3.67	21.71
153	8/3/2016 10:49:34	1.592	10.94	3.67	21.71
154	8/3/2016 10:49:35	1.592	10.94	3.67	21.71
155	8/3/2016 10:49:36	1.592	10.94	3.67	21.71
156	8/3/2016 10:49:37	1.592	10.94	3.67	21.71
157	8/3/2016 10:49:38	1.592	10.94	3.67	21.71
158	8/3/2016 10:49:39	1.591	10.94	3.67	21.71
159	8/3/2016 10:49:40	1.591	10.94	3.67	21.71
160	8/3/2016 10:49:41	1.592	10.94	3.67	21.71
161	8/3/2016 10:49:42	1.591	10.94	3.67	21.71
162	8/3/2016 10:49:43	1.591	10.94	3.67	21.71
163	8/3/2016 10:49:44	1.592	10.94	3.67	21.71
164	8/3/2016 10:49:45	1.592	10.94	3.67	21.71
165	8/3/2016 10:49:46	1.592	10.94	3.67	21.71
166	8/3/2016 10:49:47	1.592	10.94	3.67	21.71
167	8/3/2016 10:49:48	1.591	10.94	3.67	21.71
168	8/3/2016 10:49:49	1.591	10.94	3.67	21.71
169	8/3/2016 10:49:50	1.592	10.94	3.67	21.71
170	8/3/2016 10:49:51	1.592	11	3.67	21.71
171	8/3/2016 10:49:52	1.592	10.94	3.67	21.71
172	8/3/2016 10:49:53	1.592	10.94	3.67	21.71
173	8/3/2016 10:49:54	1.592	11	3.67	21.71
174	8/3/2016 10:49:55	1.592	10.94	3.67	21.71
175	8/3/2016 10:49:56	1.592	10.94	3.67	21.71
176	8/3/2016 10:49:57	1.592	11	3.67	21.71
177	8/3/2016 10:49:58	1.593	10.94	3.67	21.71
178	8/3/2016 10:49:59	1.592	11	3.67	21.71
179	8/3/2016 10:50:00	1.592	10.94	3.67	21.71
180	8/3/2016 10:50:01	1.593	10.94	3.67	21.71
181	8/3/2016 10:50:02	1.593	11	3.67	21.71
182	8/3/2016 10:50:03	1.592	11	3.67	21.71
183	8/3/2016 10:50:04	1.592	10.94	3.67	21.71
184	8/3/2016 10:50:05	1.592	11	3.67	21.71
185	8/3/2016 10:50:06	1.592	11	3.67	21.71
186	8/3/2016 10:50:07	1.592	10.94	3.67	21.71
187	8/3/2016 10:50:08	1.592	10.94	3.67	21.71
188	8/3/2016 10:50:09	1.592	10.94	3.67	21.71
189	8/3/2016 10:50:10	1.593	10.94	3.67	21.71
190	8/3/2016 10:50:11	1.593	11	3.67	21.71
191	8/3/2016 10:50:12	1.593	11	3.67	21.71

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 10:50:13	1.593	11	3.67	21.71
193	8/3/2016 10:50:14	1.593	10.94	3.67	21.71
194	8/3/2016 10:50:15	1.593	11	3.67	21.71
195	8/3/2016 10:50:16	1.593	10.94	3.67	21.71
196	8/3/2016 10:50:17	1.592	10.94	3.67	21.71
197	8/3/2016 10:50:18	1.593	10.94	3.67	21.71
198	8/3/2016 10:50:19	1.592	11	3.67	21.71
199	8/3/2016 10:50:20	1.593	10.94	3.67	21.71
200	8/3/2016 10:50:21	1.592	11	3.67	21.71
201	8/3/2016 10:50:31	1.592	10.81	3.67	21.71
202	8/3/2016 10:50:41	1.592	10.81	3.67	21.71
203	8/3/2016 10:50:51	1.592	10.88	3.67	21.71
204	8/3/2016 10:51:01	1.593	10.94	3.67	21.71
205	8/3/2016 10:51:11	1.592	10.81	3.67	21.71
206	8/3/2016 10:51:21	1.592	10.75	3.67	21.71
207	8/3/2016 10:51:31	1.592	10.75	3.67	21.71
208	8/3/2016 10:51:41	1.591	10.88	3.67	21.71

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-12S
Test: Slug Out

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-12S Slug Out
# Records	112

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	1.397	10.69
Maximum	1.591	10.88
Mean	1.583	10.83
Variance	0.0007	0.003
Std Deviation	0.0258	0.053

Measured DTW (ft btoc) = 21.71

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 10:54:25	1.591	10.69	3.67	21.71
2	8/3/2016 10:54:26	1.591	10.69	3.67	21.71
3	8/3/2016 10:54:27	1.591	10.69	3.67	21.71
4	8/3/2016 10:54:28	1.591	10.75	3.67	21.71
5	8/3/2016 10:54:29	1.397	10.75	3.22	22.16
6	8/3/2016 10:54:30	1.442	10.75	3.33	22.05
7	8/3/2016 10:54:31	1.492	10.75	3.44	21.94
8	8/3/2016 10:54:32	1.526	10.75	3.52	21.86
9	8/3/2016 10:54:33	1.544	10.75	3.56	21.82
10	8/3/2016 10:54:34	1.554	10.75	3.58	21.80
11	8/3/2016 10:54:35	1.562	10.75	3.60	21.78
12	8/3/2016 10:54:36	1.567	10.75	3.61	21.77
13	8/3/2016 10:54:37	1.569	10.75	3.62	21.76
14	8/3/2016 10:54:38	1.572	10.75	3.63	21.75
15	8/3/2016 10:54:39	1.574	10.75	3.63	21.75
16	8/3/2016 10:54:40	1.576	10.75	3.64	21.74
17	8/3/2016 10:54:41	1.577	10.75	3.64	21.74
18	8/3/2016 10:54:42	1.578	10.75	3.64	21.74
19	8/3/2016 10:54:43	1.58	10.75	3.64	21.74
20	8/3/2016 10:54:44	1.581	10.75	3.65	21.73
21	8/3/2016 10:54:45	1.581	10.75	3.65	21.73
22	8/3/2016 10:54:46	1.58	10.81	3.64	21.74
23	8/3/2016 10:54:47	1.581	10.81	3.65	21.73
24	8/3/2016 10:54:48	1.584	10.81	3.65	21.73
25	8/3/2016 10:54:49	1.585	10.75	3.66	21.72
26	8/3/2016 10:54:50	1.585	10.81	3.66	21.72
27	8/3/2016 10:54:51	1.585	10.81	3.66	21.72
28	8/3/2016 10:54:52	1.586	10.81	3.66	21.72
29	8/3/2016 10:54:53	1.586	10.81	3.66	21.72
30	8/3/2016 10:54:54	1.588	10.81	3.66	21.72
31	8/3/2016 10:54:55	1.589	10.81	3.67	21.71
32	8/3/2016 10:54:56	1.588	10.81	3.66	21.72
33	8/3/2016 10:54:57	1.588	10.81	3.66	21.72
34	8/3/2016 10:54:58	1.589	10.81	3.67	21.71
35	8/3/2016 10:54:59	1.589	10.81	3.67	21.71
36	8/3/2016 10:55:00	1.588	10.81	3.66	21.72
37	8/3/2016 10:55:01	1.589	10.81	3.67	21.71
38	8/3/2016 10:55:02	1.588	10.81	3.66	21.72
39	8/3/2016 10:55:03	1.588	10.81	3.66	21.72
40	8/3/2016 10:55:04	1.588	10.81	3.66	21.72
41	8/3/2016 10:55:05	1.588	10.81	3.66	21.72
42	8/3/2016 10:55:06	1.589	10.81	3.67	21.71
43	8/3/2016 10:55:07	1.589	10.81	3.67	21.71
44	8/3/2016 10:55:08	1.589	10.81	3.67	21.71
45	8/3/2016 10:55:09	1.59	10.81	3.67	21.71
46	8/3/2016 10:55:10	1.59	10.81	3.67	21.71
47	8/3/2016 10:55:11	1.59	10.81	3.67	21.71

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 10:55:12	1.59	10.81	3.67	21.71
49	8/3/2016 10:55:13	1.59	10.81	3.67	21.71
50	8/3/2016 10:55:14	1.591	10.81	3.67	21.71
51	8/3/2016 10:55:15	1.591	10.88	3.67	21.71
52	8/3/2016 10:55:16	1.591	10.81	3.67	21.71
53	8/3/2016 10:55:17	1.591	10.81	3.67	21.71
54	8/3/2016 10:55:18	1.591	10.81	3.67	21.71
55	8/3/2016 10:55:19	1.591	10.81	3.67	21.71
56	8/3/2016 10:55:20	1.591	10.81	3.67	21.71
57	8/3/2016 10:55:21	1.591	10.81	3.67	21.71
58	8/3/2016 10:55:22	1.59	10.81	3.67	21.71
59	8/3/2016 10:55:23	1.591	10.81	3.67	21.71
60	8/3/2016 10:55:24	1.591	10.81	3.67	21.71
61	8/3/2016 10:55:25	1.59	10.88	3.67	21.71
62	8/3/2016 10:55:26	1.59	10.88	3.67	21.71
63	8/3/2016 10:55:27	1.59	10.88	3.67	21.71
64	8/3/2016 10:55:28	1.591	10.88	3.67	21.71
65	8/3/2016 10:55:29	1.59	10.88	3.67	21.71
66	8/3/2016 10:55:30	1.591	10.81	3.67	21.71
67	8/3/2016 10:55:31	1.59	10.88	3.67	21.71
68	8/3/2016 10:55:32	1.59	10.81	3.67	21.71
69	8/3/2016 10:55:33	1.59	10.88	3.67	21.71
70	8/3/2016 10:55:34	1.59	10.88	3.67	21.71
71	8/3/2016 10:55:35	1.59	10.81	3.67	21.71
72	8/3/2016 10:55:36	1.59	10.88	3.67	21.71
73	8/3/2016 10:55:37	1.59	10.81	3.67	21.71
74	8/3/2016 10:55:38	1.59	10.88	3.67	21.71
75	8/3/2016 10:55:39	1.59	10.88	3.67	21.71
76	8/3/2016 10:55:40	1.59	10.88	3.67	21.71
77	8/3/2016 10:55:41	1.591	10.88	3.67	21.71
78	8/3/2016 10:55:42	1.591	10.88	3.67	21.71
79	8/3/2016 10:55:43	1.591	10.88	3.67	21.71
80	8/3/2016 10:55:44	1.591	10.88	3.67	21.71
81	8/3/2016 10:55:45	1.59	10.88	3.67	21.71
82	8/3/2016 10:55:46	1.591	10.88	3.67	21.71
83	8/3/2016 10:55:47	1.59	10.88	3.67	21.71
84	8/3/2016 10:55:48	1.591	10.88	3.67	21.71
85	8/3/2016 10:55:49	1.591	10.88	3.67	21.71
86	8/3/2016 10:55:50	1.59	10.88	3.67	21.71
87	8/3/2016 10:55:51	1.591	10.88	3.67	21.71
88	8/3/2016 10:55:52	1.591	10.88	3.67	21.71
89	8/3/2016 10:55:53	1.591	10.88	3.67	21.71
90	8/3/2016 10:55:54	1.591	10.88	3.67	21.71
91	8/3/2016 10:55:55	1.591	10.88	3.67	21.71
92	8/3/2016 10:55:56	1.591	10.88	3.67	21.71
93	8/3/2016 10:55:57	1.591	10.88	3.67	21.71
94	8/3/2016 10:55:58	1.591	10.88	3.67	21.71
95	8/3/2016 10:55:59	1.59	10.88	3.67	21.71
96	8/3/2016 10:56:00	1.591	10.88	3.67	21.71
97	8/3/2016 10:56:01	1.591	10.88	3.67	21.71
98	8/3/2016 10:56:02	1.591	10.88	3.67	21.71
99	8/3/2016 10:56:03	1.591	10.88	3.67	21.71
100	8/3/2016 10:56:04	1.591	10.88	3.67	21.71
101	8/3/2016 10:56:05	1.591	10.88	3.67	21.71
102	8/3/2016 10:56:06	1.591	10.88	3.67	21.71
103	8/3/2016 10:56:07	1.591	10.88	3.67	21.71
104	8/3/2016 10:56:08	1.59	10.88	3.67	21.71
105	8/3/2016 10:56:09	1.59	10.88	3.67	21.71
106	8/3/2016 10:56:10	1.591	10.88	3.67	21.71
107	8/3/2016 10:56:11	1.59	10.88	3.67	21.71
108	8/3/2016 10:56:12	1.591	10.88	3.67	21.71
109	8/3/2016 10:56:13	1.591	10.88	3.67	21.71
110	8/3/2016 10:56:14	1.59	10.88	3.67	21.71
111	8/3/2016 10:56:15	1.591	10.88	3.67	21.71
112	8/3/2016 10:56:16	1.591	10.88	3.67	21.71

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-12D
Test: Slug In 2

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-12D Slug in 2
# Records	200

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	8.955	10.56
Maximum	9.282	10.88
Mean	8.992	10.79
Variance	0.0006	0.004
Std Deviation	0.0249	0.065

Measured DTW (ft btoc) = 21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 9:53:28	8.989	10.56	20.73	21.81
2	8/3/2016 9:53:29	9.123	10.56	21.04	21.50
3	8/3/2016 9:53:30	9.282	10.56	21.41	21.13
4	8/3/2016 9:53:31	9.129	10.63	21.06	21.48
5	8/3/2016 9:53:32	8.984	10.63	20.72	21.82
6	8/3/2016 9:53:33	8.955	10.63	20.66	21.88
7	8/3/2016 9:53:34	8.973	10.63	20.70	21.84
8	8/3/2016 9:53:35	8.99	10.63	20.74	21.80
9	8/3/2016 9:53:36	8.996	10.63	20.75	21.79
10	8/3/2016 9:53:37	8.99	10.69	20.74	21.80
11	8/3/2016 9:53:38	8.991	10.63	20.74	21.80
12	8/3/2016 9:53:39	8.99	10.69	20.74	21.80
13	8/3/2016 9:53:40	8.989	10.69	20.73	21.81
14	8/3/2016 9:53:41	8.999	10.69	20.76	21.78
15	8/3/2016 9:53:42	8.982	10.69	20.72	21.82
16	8/3/2016 9:53:43	8.995	10.69	20.75	21.79
17	8/3/2016 9:53:44	8.992	10.69	20.74	21.80
18	8/3/2016 9:53:45	8.983	10.69	20.72	21.82
19	8/3/2016 9:53:46	8.987	10.69	20.73	21.81
20	8/3/2016 9:53:47	8.99	10.69	20.74	21.80
21	8/3/2016 9:53:48	8.991	10.69	20.74	21.80
22	8/3/2016 9:53:49	8.99	10.69	20.74	21.80
23	8/3/2016 9:53:50	8.989	10.69	20.73	21.81
24	8/3/2016 9:53:51	8.989	10.69	20.73	21.81
25	8/3/2016 9:53:52	8.989	10.69	20.73	21.81
26	8/3/2016 9:53:53	8.989	10.69	20.73	21.81
27	8/3/2016 9:53:54	8.989	10.75	20.73	21.81
28	8/3/2016 9:53:55	8.989	10.75	20.73	21.81
29	8/3/2016 9:53:56	8.988	10.69	20.73	21.81
30	8/3/2016 9:53:57	8.989	10.75	20.73	21.81
31	8/3/2016 9:53:58	8.989	10.75	20.73	21.81
32	8/3/2016 9:53:59	8.989	10.75	20.73	21.81
33	8/3/2016 9:54:00	8.989	10.69	20.73	21.81
34	8/3/2016 9:54:01	8.989	10.75	20.73	21.81
35	8/3/2016 9:54:02	8.989	10.75	20.73	21.81
36	8/3/2016 9:54:03	8.989	10.75	20.73	21.81
37	8/3/2016 9:54:04	8.989	10.75	20.73	21.81
38	8/3/2016 9:54:05	8.989	10.75	20.73	21.81
39	8/3/2016 9:54:06	8.989	10.75	20.73	21.81
40	8/3/2016 9:54:07	8.989	10.75	20.73	21.81
41	8/3/2016 9:54:08	8.989	10.75	20.73	21.81
42	8/3/2016 9:54:09	8.989	10.75	20.73	21.81
43	8/3/2016 9:54:10	8.989	10.75	20.73	21.81
44	8/3/2016 9:54:11	8.989	10.75	20.73	21.81
45	8/3/2016 9:54:12	8.989	10.75	20.73	21.81
46	8/3/2016 9:54:13	8.989	10.75	20.73	21.81
47	8/3/2016 9:54:14	8.989	10.75	20.73	21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 9:54:15	8.989	10.75	20.73	21.81
49	8/3/2016 9:54:16	8.989	10.75	20.73	21.81
50	8/3/2016 9:54:17	8.989	10.75	20.73	21.81
51	8/3/2016 9:54:18	8.989	10.75	20.73	21.81
52	8/3/2016 9:54:19	8.989	10.75	20.73	21.81
53	8/3/2016 9:54:20	8.989	10.75	20.73	21.81
54	8/3/2016 9:54:21	8.988	10.75	20.73	21.81
55	8/3/2016 9:54:22	8.989	10.75	20.73	21.81
56	8/3/2016 9:54:23	8.99	10.75	20.74	21.80
57	8/3/2016 9:54:24	8.989	10.75	20.73	21.81
58	8/3/2016 9:54:25	8.989	10.75	20.73	21.81
59	8/3/2016 9:54:26	8.989	10.75	20.73	21.81
60	8/3/2016 9:54:27	8.989	10.75	20.73	21.81
61	8/3/2016 9:54:28	8.989	10.81	20.73	21.81
62	8/3/2016 9:54:29	8.989	10.75	20.73	21.81
63	8/3/2016 9:54:30	8.989	10.75	20.73	21.81
64	8/3/2016 9:54:31	8.989	10.81	20.73	21.81
65	8/3/2016 9:54:32	8.989	10.81	20.73	21.81
66	8/3/2016 9:54:33	8.989	10.81	20.73	21.81
67	8/3/2016 9:54:34	8.989	10.75	20.73	21.81
68	8/3/2016 9:54:35	8.989	10.75	20.73	21.81
69	8/3/2016 9:54:36	8.989	10.75	20.73	21.81
70	8/3/2016 9:54:37	8.989	10.81	20.73	21.81
71	8/3/2016 9:54:38	8.989	10.81	20.73	21.81
72	8/3/2016 9:54:39	8.989	10.81	20.73	21.81
73	8/3/2016 9:54:40	8.989	10.75	20.73	21.81
74	8/3/2016 9:54:41	8.989	10.81	20.73	21.81
75	8/3/2016 9:54:42	8.989	10.81	20.73	21.81
76	8/3/2016 9:54:43	8.989	10.81	20.73	21.81
77	8/3/2016 9:54:44	8.989	10.81	20.73	21.81
78	8/3/2016 9:54:45	8.989	10.81	20.73	21.81
79	8/3/2016 9:54:46	8.989	10.81	20.73	21.81
80	8/3/2016 9:54:47	8.989	10.81	20.73	21.81
81	8/3/2016 9:54:48	8.989	10.81	20.73	21.81
82	8/3/2016 9:54:49	8.989	10.81	20.73	21.81
83	8/3/2016 9:54:50	8.989	10.81	20.73	21.81
84	8/3/2016 9:54:51	8.989	10.81	20.73	21.81
85	8/3/2016 9:54:52	8.989	10.81	20.73	21.81
86	8/3/2016 9:54:53	8.989	10.81	20.73	21.81
87	8/3/2016 9:54:54	8.989	10.81	20.73	21.81
88	8/3/2016 9:54:55	8.989	10.81	20.73	21.81
89	8/3/2016 9:54:56	8.989	10.81	20.73	21.81
90	8/3/2016 9:54:57	8.989	10.81	20.73	21.81
91	8/3/2016 9:54:58	8.99	10.81	20.74	21.80
92	8/3/2016 9:54:59	8.989	10.81	20.73	21.81
93	8/3/2016 9:55:00	8.989	10.81	20.73	21.81
94	8/3/2016 9:55:01	8.989	10.81	20.73	21.81
95	8/3/2016 9:55:02	8.989	10.81	20.73	21.81
96	8/3/2016 9:55:03	8.989	10.81	20.73	21.81
97	8/3/2016 9:55:04	8.989	10.81	20.73	21.81
98	8/3/2016 9:55:05	8.989	10.81	20.73	21.81
99	8/3/2016 9:55:06	8.989	10.81	20.73	21.81
100	8/3/2016 9:55:07	8.989	10.81	20.73	21.81
101	8/3/2016 9:55:08	8.989	10.81	20.73	21.81
102	8/3/2016 9:55:09	8.989	10.81	20.73	21.81
103	8/3/2016 9:55:10	8.989	10.81	20.73	21.81
104	8/3/2016 9:55:11	8.989	10.81	20.73	21.81
105	8/3/2016 9:55:12	8.99	10.81	20.74	21.80
106	8/3/2016 9:55:13	8.989	10.81	20.73	21.81
107	8/3/2016 9:55:14	8.989	10.81	20.73	21.81
108	8/3/2016 9:55:15	8.989	10.81	20.73	21.81
109	8/3/2016 9:55:16	8.989	10.81	20.73	21.81
110	8/3/2016 9:55:17	8.99	10.81	20.74	21.80
111	8/3/2016 9:55:18	8.99	10.81	20.74	21.80
112	8/3/2016 9:55:19	8.989	10.81	20.73	21.81
113	8/3/2016 9:55:20	8.99	10.81	20.74	21.80
114	8/3/2016 9:55:21	8.989	10.81	20.73	21.81
115	8/3/2016 9:55:22	8.989	10.81	20.73	21.81
116	8/3/2016 9:55:23	8.99	10.81	20.74	21.80
117	8/3/2016 9:55:24	8.989	10.81	20.73	21.81
118	8/3/2016 9:55:25	8.989	10.81	20.73	21.81
119	8/3/2016 9:55:26	8.99	10.81	20.74	21.80

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 9:55:27	8.99	10.81	20.74	21.80
121	8/3/2016 9:55:28	8.989	10.81	20.73	21.81
122	8/3/2016 9:55:29	8.989	10.81	20.73	21.81
123	8/3/2016 9:55:30	8.99	10.81	20.74	21.80
124	8/3/2016 9:55:31	8.99	10.81	20.74	21.80
125	8/3/2016 9:55:32	8.99	10.81	20.74	21.80
126	8/3/2016 9:55:33	8.989	10.81	20.73	21.81
127	8/3/2016 9:55:34	8.989	10.81	20.73	21.81
128	8/3/2016 9:55:35	8.989	10.88	20.73	21.81
129	8/3/2016 9:55:36	8.99	10.81	20.74	21.80
130	8/3/2016 9:55:37	8.989	10.81	20.73	21.81
131	8/3/2016 9:55:38	8.989	10.81	20.73	21.81
132	8/3/2016 9:55:39	8.989	10.81	20.73	21.81
133	8/3/2016 9:55:40	8.99	10.81	20.74	21.80
134	8/3/2016 9:55:41	8.989	10.81	20.73	21.81
135	8/3/2016 9:55:42	8.989	10.81	20.73	21.81
136	8/3/2016 9:55:43	8.99	10.81	20.74	21.80
137	8/3/2016 9:55:44	8.99	10.81	20.74	21.80
138	8/3/2016 9:55:45	8.989	10.81	20.73	21.81
139	8/3/2016 9:55:46	8.989	10.81	20.73	21.81
140	8/3/2016 9:55:47	8.989	10.81	20.73	21.81
141	8/3/2016 9:55:48	8.989	10.88	20.73	21.81
142	8/3/2016 9:55:49	8.989	10.81	20.73	21.81
143	8/3/2016 9:55:50	8.989	10.81	20.73	21.81
144	8/3/2016 9:55:51	8.989	10.81	20.73	21.81
145	8/3/2016 9:55:52	8.989	10.81	20.73	21.81
146	8/3/2016 9:55:53	8.989	10.81	20.73	21.81
147	8/3/2016 9:55:54	8.989	10.88	20.73	21.81
148	8/3/2016 9:55:55	8.989	10.81	20.73	21.81
149	8/3/2016 9:55:56	8.989	10.81	20.73	21.81
150	8/3/2016 9:55:57	8.989	10.81	20.73	21.81
151	8/3/2016 9:55:58	8.989	10.81	20.73	21.81
152	8/3/2016 9:55:59	8.989	10.81	20.73	21.81
153	8/3/2016 9:56:00	8.989	10.88	20.73	21.81
154	8/3/2016 9:56:01	8.989	10.81	20.73	21.81
155	8/3/2016 9:56:02	8.989	10.81	20.73	21.81
156	8/3/2016 9:56:03	8.989	10.81	20.73	21.81
157	8/3/2016 9:56:04	8.989	10.81	20.73	21.81
158	8/3/2016 9:56:05	8.989	10.88	20.73	21.81
159	8/3/2016 9:56:06	8.989	10.81	20.73	21.81
160	8/3/2016 9:56:07	8.989	10.81	20.73	21.81
161	8/3/2016 9:56:08	8.989	10.81	20.73	21.81
162	8/3/2016 9:56:09	8.989	10.88	20.73	21.81
163	8/3/2016 9:56:10	8.99	10.81	20.74	21.80
164	8/3/2016 9:56:11	8.989	10.81	20.73	21.81
165	8/3/2016 9:56:12	8.989	10.88	20.73	21.81
166	8/3/2016 9:56:13	8.989	10.81	20.73	21.81
167	8/3/2016 9:56:14	8.989	10.88	20.73	21.81
168	8/3/2016 9:56:15	8.989	10.88	20.73	21.81
169	8/3/2016 9:56:16	8.989	10.81	20.73	21.81
170	8/3/2016 9:56:17	8.99	10.81	20.74	21.80
171	8/3/2016 9:56:18	8.989	10.81	20.73	21.81
172	8/3/2016 9:56:19	8.989	10.88	20.73	21.81
173	8/3/2016 9:56:20	8.989	10.88	20.73	21.81
174	8/3/2016 9:56:21	8.989	10.81	20.73	21.81
175	8/3/2016 9:56:22	8.989	10.81	20.73	21.81
176	8/3/2016 9:56:23	8.989	10.88	20.73	21.81
177	8/3/2016 9:56:24	8.989	10.88	20.73	21.81
178	8/3/2016 9:56:25	8.99	10.88	20.74	21.80
179	8/3/2016 9:56:26	8.989	10.88	20.73	21.81
180	8/3/2016 9:56:27	8.989	10.81	20.73	21.81
181	8/3/2016 9:56:28	8.989	10.88	20.73	21.81
182	8/3/2016 9:56:29	8.989	10.88	20.73	21.81
183	8/3/2016 9:56:30	8.99	10.88	20.74	21.80
184	8/3/2016 9:56:31	8.99	10.81	20.74	21.80
185	8/3/2016 9:56:32	8.989	10.88	20.73	21.81
186	8/3/2016 9:56:33	8.989	10.88	20.73	21.81
187	8/3/2016 9:56:34	8.989	10.81	20.73	21.81
188	8/3/2016 9:56:35	8.989	10.88	20.73	21.81
189	8/3/2016 9:56:36	8.989	10.88	20.73	21.81
190	8/3/2016 9:56:37	8.989	10.88	20.73	21.81
191	8/3/2016 9:56:38	8.989	10.81	20.73	21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 9:56:39	8.989	10.88	20.73	21.81
193	8/3/2016 9:56:40	8.989	10.81	20.73	21.81
194	8/3/2016 9:56:41	8.989	10.81	20.73	21.81
195	8/3/2016 9:56:42	8.989	10.88	20.73	21.81
196	8/3/2016 9:56:43	8.989	10.88	20.73	21.81
197	8/3/2016 9:56:44	8.99	10.81	20.74	21.80
198	8/3/2016 9:56:45	8.989	10.81	20.73	21.81
199	8/3/2016 9:56:46	8.989	10.88	20.73	21.81
200	8/3/2016 9:56:47	8.989	10.88	20.73	21.81

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-12D
Test: Slug Out

Advanced Calibration Data	Cal Date	m2	m1	m0	b3	b2	b1	b0
Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data	Slope	Offset	Cal Date
Pressure	1.003793955	-0.159000009	7/18/2016 11:35
Temperature	1	0	4/6/2010 9:18

Sensor SN	**21051019**
Sensor Type	**PT2X**
Sensor Name	**Geotech Rental #4577**
File Name	**MW-12D Slug Out**
# Records	**223**

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	8.702	10.5
Maximum	9.015	10.94
Mean	8.986	10.88
Variance	0.0005	0.012
Std Deviation	0.0229	0.108

Measured DTW (ft btoc) = 21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 9:27:41	8.988	10.63	20.73	21.81
2	8/3/2016 9:27:42	8.988	10.69	20.73	21.81
3	8/3/2016 9:27:43	8.988	10.69	20.73	21.81
4	8/3/2016 9:27:44	8.988	10.75	20.73	21.81
5	8/3/2016 9:27:45	8.988	10.75	20.73	21.81
6	8/3/2016 9:27:46	8.988	10.75	20.73	21.81
7	8/3/2016 9:27:47	8.988	10.75	20.73	21.81
8	8/3/2016 9:27:48	8.988	10.75	20.73	21.81
9	8/3/2016 9:27:49	8.988	10.75	20.73	21.81
10	8/3/2016 9:27:50	8.988	10.75	20.73	21.81
11	8/3/2016 9:27:51	8.988	10.75	20.73	21.81
12	8/3/2016 9:27:52	8.988	10.75	20.73	21.81
13	8/3/2016 9:27:53	8.988	10.75	20.73	21.81
14	8/3/2016 9:27:54	8.988	10.75	20.73	21.81
15	8/3/2016 9:27:55	8.988	10.75	20.73	21.81
16	8/3/2016 9:27:56	8.988	10.75	20.73	21.81
17	8/3/2016 9:27:57	8.987	10.75	20.73	21.81
18	8/3/2016 9:27:58	8.987	10.75	20.73	21.81
19	8/3/2016 9:27:59	8.988	10.75	20.73	21.81
20	8/3/2016 9:28:00	8.988	10.81	20.73	21.81
21	8/3/2016 9:28:01	8.988	10.81	20.73	21.81
22	8/3/2016 9:28:02	8.988	10.75	20.73	21.81
23	8/3/2016 9:28:03	8.988	10.81	20.73	21.81
24	8/3/2016 9:28:04	8.988	10.81	20.73	21.81
25	8/3/2016 9:28:05	8.988	10.75	20.73	21.81
26	8/3/2016 9:28:06	8.988	10.81	20.73	21.81
27	8/3/2016 9:28:07	8.988	10.81	20.73	21.81
28	8/3/2016 9:28:08	8.988	10.81	20.73	21.81
29	8/3/2016 9:28:09	8.988	10.81	20.73	21.81
30	8/3/2016 9:28:10	8.988	10.81	20.73	21.81
31	8/3/2016 9:28:11	8.988	10.81	20.73	21.81
32	8/3/2016 9:28:12	8.988	10.81	20.73	21.81
33	8/3/2016 9:28:13	8.988	10.81	20.73	21.81
34	8/3/2016 9:28:14	8.988	10.81	20.73	21.81
35	8/3/2016 9:28:15	8.988	10.81	20.73	21.81
36	8/3/2016 9:31:06	8.988	10.94	20.73	21.81
37	8/3/2016 9:31:07	8.988	10.94	20.73	21.81
38	8/3/2016 9:31:08	8.988	10.94	20.73	21.81
39	8/3/2016 9:31:09	8.864	10.94	20.45	22.09
40	8/3/2016 9:31:10	8.702	10.94	20.07	22.47
41	8/3/2016 9:31:11	8.848	10.94	20.41	22.13
42	8/3/2016 9:31:12	8.978	10.94	20.71	21.83
43	8/3/2016 9:31:13	9.015	10.94	20.79	21.75
44	8/3/2016 9:31:14	9.003	10.94	20.77	21.77
45	8/3/2016 9:31:15	8.986	10.94	20.73	21.81
46	8/3/2016 9:31:16	8.981	10.94	20.72	21.82
47	8/3/2016 9:31:17	8.983	10.94	20.72	21.82

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 9:31:18	8.985	10.94	20.73	21.81
49	8/3/2016 9:31:19	8.987	10.94	20.73	21.81
50	8/3/2016 9:31:20	8.987	10.94	20.73	21.81
51	8/3/2016 9:31:21	8.987	10.94	20.73	21.81
52	8/3/2016 9:31:22	8.987	10.94	20.73	21.81
53	8/3/2016 9:31:23	8.987	10.94	20.73	21.81
54	8/3/2016 9:31:24	8.987	10.94	20.73	21.81
55	8/3/2016 9:31:25	8.988	10.94	20.73	21.81
56	8/3/2016 9:31:26	8.988	10.94	20.73	21.81
57	8/3/2016 9:31:27	8.988	10.94	20.73	21.81
58	8/3/2016 9:31:28	8.988	10.94	20.73	21.81
59	8/3/2016 9:31:29	8.988	10.94	20.73	21.81
60	8/3/2016 9:31:30	8.988	10.94	20.73	21.81
61	8/3/2016 9:31:31	8.988	10.94	20.73	21.81
62	8/3/2016 9:31:32	8.988	10.94	20.73	21.81
63	8/3/2016 9:31:33	8.988	10.94	20.73	21.81
64	8/3/2016 9:31:34	8.988	10.94	20.73	21.81
65	8/3/2016 9:31:35	8.988	10.94	20.73	21.81
66	8/3/2016 9:31:36	8.988	10.94	20.73	21.81
67	8/3/2016 9:31:37	8.988	10.94	20.73	21.81
68	8/3/2016 9:31:38	8.988	10.94	20.73	21.81
69	8/3/2016 9:31:39	8.988	10.94	20.73	21.81
70	8/3/2016 9:31:40	8.988	10.94	20.73	21.81
71	8/3/2016 9:31:41	8.988	10.94	20.73	21.81
72	8/3/2016 9:31:42	8.988	10.94	20.73	21.81
73	8/3/2016 9:31:43	8.988	10.94	20.73	21.81
74	8/3/2016 9:31:44	8.99	10.94	20.74	21.80
75	8/3/2016 9:31:45	8.99	10.94	20.74	21.80
76	8/3/2016 9:31:46	8.99	10.94	20.74	21.80
77	8/3/2016 9:31:47	8.989	10.94	20.73	21.81
78	8/3/2016 9:31:48	8.989	10.94	20.73	21.81
79	8/3/2016 9:31:49	8.989	10.94	20.73	21.81
80	8/3/2016 9:31:50	8.99	10.94	20.74	21.80
81	8/3/2016 9:31:51	8.989	10.94	20.73	21.81
82	8/3/2016 9:31:52	8.989	10.94	20.73	21.81
83	8/3/2016 9:31:53	8.989	10.94	20.73	21.81
84	8/3/2016 9:31:54	8.989	10.94	20.73	21.81
85	8/3/2016 9:31:55	8.989	10.94	20.73	21.81
86	8/3/2016 9:31:56	8.99	10.94	20.74	21.80
87	8/3/2016 9:31:57	8.989	10.94	20.73	21.81
88	8/3/2016 9:31:58	8.99	10.94	20.74	21.80
89	8/3/2016 9:31:59	8.989	10.94	20.73	21.81
90	8/3/2016 9:32:00	8.989	10.94	20.73	21.81
91	8/3/2016 9:32:01	8.99	10.94	20.74	21.80
92	8/3/2016 9:32:02	8.989	10.94	20.73	21.81
93	8/3/2016 9:32:03	8.989	10.94	20.73	21.81
94	8/3/2016 9:32:04	8.989	10.94	20.73	21.81
95	8/3/2016 9:32:05	8.989	10.94	20.73	21.81
96	8/3/2016 9:32:06	8.989	10.94	20.73	21.81
97	8/3/2016 9:32:07	8.989	10.94	20.73	21.81
98	8/3/2016 9:32:08	8.989	10.94	20.73	21.81
99	8/3/2016 9:32:09	8.989	10.94	20.73	21.81
100	8/3/2016 9:32:10	8.989	10.94	20.73	21.81
101	8/3/2016 9:32:11	8.989	10.94	20.73	21.81
102	8/3/2016 9:32:12	8.989	10.94	20.73	21.81
103	8/3/2016 9:32:13	8.989	10.94	20.73	21.81
104	8/3/2016 9:32:14	8.989	10.94	20.73	21.81
105	8/3/2016 9:32:15	8.989	10.94	20.73	21.81
106	8/3/2016 9:32:16	8.989	10.94	20.73	21.81
107	8/3/2016 9:32:17	8.989	10.94	20.73	21.81
108	8/3/2016 9:32:18	8.989	10.94	20.73	21.81
109	8/3/2016 9:32:19	8.989	10.94	20.73	21.81
110	8/3/2016 9:32:20	8.989	10.94	20.73	21.81
111	8/3/2016 9:32:21	8.989	10.94	20.73	21.81
112	8/3/2016 9:32:22	8.989	10.94	20.73	21.81
113	8/3/2016 9:32:23	8.989	10.94	20.73	21.81
114	8/3/2016 9:32:24	8.989	10.94	20.73	21.81
115	8/3/2016 9:32:25	8.989	10.94	20.73	21.81
116	8/3/2016 9:32:26	8.989	10.94	20.73	21.81
117	8/3/2016 9:32:27	8.989	10.94	20.73	21.81
118	8/3/2016 9:32:28	8.989	10.94	20.73	21.81
119	8/3/2016 9:32:29	8.989	10.94	20.73	21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 9:32:30	8.989	10.94	20.73	21.81
121	8/3/2016 9:32:31	8.989	10.94	20.73	21.81
122	8/3/2016 9:32:32	8.99	10.94	20.74	21.80
123	8/3/2016 9:32:33	8.989	10.94	20.73	21.81
124	8/3/2016 9:32:34	8.989	10.94	20.73	21.81
125	8/3/2016 9:32:35	8.99	10.94	20.74	21.80
126	8/3/2016 9:32:36	8.989	10.94	20.73	21.81
127	8/3/2016 9:32:37	8.989	10.94	20.73	21.81
128	8/3/2016 9:32:38	8.989	10.88	20.73	21.81
129	8/3/2016 9:32:39	8.989	10.94	20.73	21.81
130	8/3/2016 9:32:40	8.989	10.94	20.73	21.81
131	8/3/2016 9:32:41	8.989	10.94	20.73	21.81
132	8/3/2016 9:32:42	8.989	10.94	20.73	21.81
133	8/3/2016 9:32:43	8.989	10.94	20.73	21.81
134	8/3/2016 9:32:44	8.989	10.94	20.73	21.81
135	8/3/2016 9:32:45	8.989	10.94	20.73	21.81
136	8/3/2016 9:32:46	8.989	10.94	20.73	21.81
137	8/3/2016 9:32:47	8.989	10.94	20.73	21.81
138	8/3/2016 9:32:48	8.989	10.94	20.73	21.81
139	8/3/2016 9:32:49	8.989	10.94	20.73	21.81
140	8/3/2016 9:32:50	8.988	10.88	20.73	21.81
141	8/3/2016 9:32:51	8.988	10.94	20.73	21.81
142	8/3/2016 9:32:52	8.989	10.94	20.73	21.81
143	8/3/2016 9:32:53	8.989	10.94	20.73	21.81
144	8/3/2016 9:32:54	8.989	10.94	20.73	21.81
145	8/3/2016 9:32:55	8.989	10.94	20.73	21.81
146	8/3/2016 9:32:56	8.989	10.94	20.73	21.81
147	8/3/2016 9:32:57	8.989	10.94	20.73	21.81
148	8/3/2016 9:32:58	8.989	10.88	20.73	21.81
149	8/3/2016 9:32:59	8.989	10.94	20.73	21.81
150	8/3/2016 9:33:00	8.989	10.94	20.73	21.81
151	8/3/2016 9:33:01	8.989	10.94	20.73	21.81
152	8/3/2016 9:33:02	8.989	10.94	20.73	21.81
153	8/3/2016 9:33:03	8.989	10.94	20.73	21.81
154	8/3/2016 9:33:04	8.989	10.94	20.73	21.81
155	8/3/2016 9:33:05	8.989	10.94	20.73	21.81
156	8/3/2016 9:33:06	8.989	10.94	20.73	21.81
157	8/3/2016 9:33:07	8.989	10.94	20.73	21.81
158	8/3/2016 9:33:08	8.989	10.94	20.73	21.81
159	8/3/2016 9:33:09	8.989	10.94	20.73	21.81
160	8/3/2016 9:33:10	8.989	10.94	20.73	21.81
161	8/3/2016 9:33:11	8.989	10.94	20.73	21.81
162	8/3/2016 9:33:12	8.989	10.94	20.73	21.81
163	8/3/2016 9:33:13	8.989	10.94	20.73	21.81
164	8/3/2016 9:33:14	8.989	10.94	20.73	21.81
165	8/3/2016 9:33:15	8.989	10.94	20.73	21.81
166	8/3/2016 9:33:16	8.989	10.94	20.73	21.81
167	8/3/2016 9:33:17	8.989	10.94	20.73	21.81
168	8/3/2016 9:33:18	8.989	10.94	20.73	21.81
169	8/3/2016 9:33:19	8.989	10.94	20.73	21.81
170	8/3/2016 9:33:20	8.989	10.94	20.73	21.81
171	8/3/2016 9:33:21	8.989	10.94	20.73	21.81
172	8/3/2016 9:33:22	8.989	10.88	20.73	21.81
173	8/3/2016 9:33:23	8.989	10.94	20.73	21.81
174	8/3/2016 9:33:24	8.989	10.94	20.73	21.81
175	8/3/2016 9:33:25	8.988	10.94	20.73	21.81
176	8/3/2016 9:33:26	8.989	10.94	20.73	21.81
177	8/3/2016 9:33:27	8.989	10.94	20.73	21.81
178	8/3/2016 9:33:28	8.989	10.94	20.73	21.81
179	8/3/2016 9:33:29	8.989	10.94	20.73	21.81
180	8/3/2016 9:33:30	8.989	10.94	20.73	21.81
181	8/3/2016 9:33:31	8.989	10.94	20.73	21.81
182	8/3/2016 9:33:32	8.989	10.94	20.73	21.81
183	8/3/2016 9:33:33	8.989	10.88	20.73	21.81
184	8/3/2016 9:33:34	8.989	10.94	20.73	21.81
185	8/3/2016 9:33:35	8.989	10.94	20.73	21.81
186	8/3/2016 9:33:36	8.989	10.94	20.73	21.81
187	8/3/2016 9:33:37	8.989	10.94	20.73	21.81
188	8/3/2016 9:33:38	8.989	10.94	20.73	21.81
189	8/3/2016 9:33:39	8.989	10.94	20.73	21.81
190	8/3/2016 9:33:40	8.989	10.94	20.73	21.81
191	8/3/2016 9:33:41	8.989	10.94	20.73	21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 9:33:42	8.989	10.94	20.73	21.81
193	8/3/2016 9:33:43	8.989	10.94	20.73	21.81
194	8/3/2016 9:33:44	8.989	10.94	20.73	21.81
195	8/3/2016 9:33:45	8.989	10.94	20.73	21.81
196	8/3/2016 9:33:46	8.989	10.94	20.73	21.81
197	8/3/2016 9:33:47	8.989	10.94	20.73	21.81
198	8/3/2016 9:33:48	8.989	10.94	20.73	21.81
199	8/3/2016 9:33:49	8.989	10.94	20.73	21.81
200	8/3/2016 9:33:50	8.989	10.94	20.73	21.81
201	8/3/2016 9:34:00	8.989	10.94	20.73	21.81
202	8/3/2016 9:34:10	8.989	10.94	20.73	21.81
203	8/3/2016 9:34:20	8.989	10.81	20.73	21.81
204	8/3/2016 9:34:30	8.99	10.75	20.74	21.80
205	8/3/2016 9:34:40	8.989	10.75	20.73	21.81
206	8/3/2016 9:34:50	8.988	10.69	20.73	21.81
207	8/3/2016 9:35:00	8.989	10.69	20.73	21.81
208	8/3/2016 9:35:10	8.989	10.63	20.73	21.81
209	8/3/2016 9:35:20	8.989	10.63	20.73	21.81
210	8/3/2016 9:35:30	8.989	10.63	20.73	21.81
211	8/3/2016 9:35:40	8.989	10.63	20.73	21.81
212	8/3/2016 9:35:50	8.989	10.63	20.73	21.81
213	8/3/2016 9:36:00	8.989	10.63	20.73	21.81
214	8/3/2016 9:36:10	8.989	10.56	20.73	21.81
215	8/3/2016 9:36:20	8.989	10.56	20.73	21.81
216	8/3/2016 9:36:30	8.988	10.56	20.73	21.81
217	8/3/2016 9:36:40	8.988	10.56	20.73	21.81
218	8/3/2016 9:36:50	8.989	10.56	20.73	21.81
219	8/3/2016 9:37:00	8.989	10.56	20.73	21.81
220	8/3/2016 9:37:10	8.989	10.56	20.73	21.81
221	8/3/2016 9:37:20	8.989	10.56	20.73	21.81
222	8/3/2016 9:37:30	8.989	10.5	20.73	21.81
223	8/3/2016 9:37:40	8.988	10.63	20.73	21.81

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-12D
Test: Slug In 3

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-12D slug in 3
# Records	84

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	8.962	10.56
Maximum	9.282	10.75
Mean	8.995	10.7
Variance	0.0015	0.003
Std Deviation	0.039	0.053

Measured DTW (ft btoc) = 21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 10:06:30	8.988	10.56	20.73	21.81
2	8/3/2016 10:06:31	8.988	10.56	20.73	21.81
3	8/3/2016 10:06:32	8.989	10.56	20.73	21.81
4	8/3/2016 10:06:33	9.186	10.63	21.19	21.35
5	8/3/2016 10:06:34	9.282	10.63	21.41	21.13
6	8/3/2016 10:06:35	9.06	10.63	20.90	21.64
7	8/3/2016 10:06:36	8.967	10.63	20.68	21.86
8	8/3/2016 10:06:37	8.962	10.63	20.67	21.87
9	8/3/2016 10:06:38	8.977	10.63	20.71	21.83
10	8/3/2016 10:06:39	8.991	10.63	20.74	21.80
11	8/3/2016 10:06:40	8.995	10.63	20.75	21.79
12	8/3/2016 10:06:41	8.993	10.63	20.74	21.80
13	8/3/2016 10:06:42	8.989	10.63	20.73	21.81
14	8/3/2016 10:06:43	8.988	10.63	20.73	21.81
15	8/3/2016 10:06:44	8.989	10.63	20.73	21.81
16	8/3/2016 10:06:45	8.989	10.63	20.73	21.81
17	8/3/2016 10:06:46	8.989	10.63	20.73	21.81
18	8/3/2016 10:06:47	8.989	10.63	20.73	21.81
19	8/3/2016 10:06:48	8.989	10.69	20.73	21.81
20	8/3/2016 10:06:49	8.989	10.63	20.73	21.81
21	8/3/2016 10:06:50	8.989	10.63	20.73	21.81
22	8/3/2016 10:06:51	8.989	10.63	20.73	21.81
23	8/3/2016 10:06:52	8.989	10.69	20.73	21.81
24	8/3/2016 10:06:53	8.989	10.69	20.73	21.81
25	8/3/2016 10:06:54	8.988	10.69	20.73	21.81
26	8/3/2016 10:06:55	8.988	10.69	20.73	21.81
27	8/3/2016 10:06:56	8.989	10.69	20.73	21.81
28	8/3/2016 10:06:57	8.989	10.69	20.73	21.81
29	8/3/2016 10:06:58	8.989	10.69	20.73	21.81
30	8/3/2016 10:06:59	8.989	10.69	20.73	21.81
31	8/3/2016 10:07:00	8.989	10.69	20.73	21.81
32	8/3/2016 10:07:01	8.989	10.69	20.73	21.81
33	8/3/2016 10:07:02	8.989	10.69	20.73	21.81
34	8/3/2016 10:07:03	8.989	10.69	20.73	21.81
35	8/3/2016 10:07:04	8.988	10.69	20.73	21.81
36	8/3/2016 10:07:05	8.988	10.69	20.73	21.81
37	8/3/2016 10:07:06	8.989	10.69	20.73	21.81
38	8/3/2016 10:07:07	8.989	10.69	20.73	21.81
39	8/3/2016 10:07:08	8.989	10.69	20.73	21.81
40	8/3/2016 10:07:09	8.989	10.69	20.73	21.81
41	8/3/2016 10:07:10	8.989	10.69	20.73	21.81
42	8/3/2016 10:07:11	8.989	10.69	20.73	21.81
43	8/3/2016 10:07:12	8.989	10.69	20.73	21.81
44	8/3/2016 10:07:13	8.989	10.69	20.73	21.81
45	8/3/2016 10:07:14	8.989	10.75	20.73	21.81
46	8/3/2016 10:07:15	8.989	10.75	20.73	21.81
47	8/3/2016 10:07:16	8.989	10.69	20.73	21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 10:07:17	8.989	10.69	20.73	21.81
49	8/3/2016 10:07:18	8.989	10.69	20.73	21.81
50	8/3/2016 10:07:19	8.989	10.75	20.73	21.81
51	8/3/2016 10:07:20	8.989	10.75	20.73	21.81
52	8/3/2016 10:07:21	8.989	10.75	20.73	21.81
53	8/3/2016 10:07:22	8.989	10.75	20.73	21.81
54	8/3/2016 10:07:23	8.989	10.75	20.73	21.81
55	8/3/2016 10:07:24	8.989	10.69	20.73	21.81
56	8/3/2016 10:07:25	8.989	10.69	20.73	21.81
57	8/3/2016 10:07:26	8.989	10.75	20.73	21.81
58	8/3/2016 10:07:27	8.989	10.75	20.73	21.81
59	8/3/2016 10:07:28	8.989	10.75	20.73	21.81
60	8/3/2016 10:07:29	8.989	10.75	20.73	21.81
61	8/3/2016 10:07:30	8.989	10.75	20.73	21.81
62	8/3/2016 10:07:31	8.989	10.75	20.73	21.81
63	8/3/2016 10:07:32	8.989	10.75	20.73	21.81
64	8/3/2016 10:07:33	8.989	10.75	20.73	21.81
65	8/3/2016 10:07:34	8.989	10.75	20.73	21.81
66	8/3/2016 10:07:35	8.989	10.75	20.73	21.81
67	8/3/2016 10:07:36	8.99	10.75	20.74	21.80
68	8/3/2016 10:07:37	8.989	10.75	20.73	21.81
69	8/3/2016 10:07:38	8.989	10.75	20.73	21.81
70	8/3/2016 10:07:39	8.989	10.75	20.73	21.81
71	8/3/2016 10:07:40	8.99	10.75	20.74	21.80
72	8/3/2016 10:07:41	8.99	10.75	20.74	21.80
73	8/3/2016 10:07:42	8.989	10.75	20.73	21.81
74	8/3/2016 10:07:43	8.99	10.75	20.74	21.80
75	8/3/2016 10:07:44	8.99	10.75	20.74	21.80
76	8/3/2016 10:07:45	8.99	10.75	20.74	21.80
77	8/3/2016 10:07:46	8.989	10.75	20.73	21.81
78	8/3/2016 10:07:47	8.989	10.75	20.73	21.81
79	8/3/2016 10:07:48	8.989	10.75	20.73	21.81
80	8/3/2016 10:07:49	8.99	10.75	20.74	21.80
81	8/3/2016 10:07:50	8.989	10.75	20.73	21.81
82	8/3/2016 10:07:51	8.99	10.75	20.74	21.80
83	8/3/2016 10:07:52	8.99	10.75	20.74	21.80
84	8/3/2016 10:07:53	8.989	10.75	20.73	21.81

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-12D
Test: Slug Out 3

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	**21051019**
Sensor Type	**PT2X**
Sensor Name	**Geotech Rental #4577**
File Name	**MW-12D Slug Out 3**
# Records	**98**

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	8.703	10.75
Maximum	9.022	10.81
Mean	8.984	10.8
Variance	0.0016	0.001
Std Deviation	0.04	0.024

Measured DTW (ft btoc) = 21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 10:10:23	8.99	10.75	20.74	21.81
2	8/3/2016 10:10:24	8.99	10.75	20.74	21.81
3	8/3/2016 10:10:25	8.99	10.75	20.74	21.81
4	8/3/2016 10:10:26	8.703	10.75	20.07	22.48
5	8/3/2016 10:10:27	8.723	10.75	20.12	22.43
6	8/3/2016 10:10:28	8.919	10.75	20.57	21.98
7	8/3/2016 10:10:29	9.02	10.75	20.81	21.74
8	8/3/2016 10:10:30	9.022	10.75	20.81	21.74
9	8/3/2016 10:10:31	8.995	10.75	20.75	21.80
10	8/3/2016 10:10:32	8.984	10.75	20.72	21.83
11	8/3/2016 10:10:33	8.986	10.75	20.73	21.82
12	8/3/2016 10:10:34	8.989	10.75	20.73	21.82
13	8/3/2016 10:10:35	8.99	10.75	20.74	21.81
14	8/3/2016 10:10:36	8.989	10.75	20.73	21.82
15	8/3/2016 10:10:37	8.989	10.75	20.73	21.82
16	8/3/2016 10:10:38	8.989	10.75	20.73	21.82
17	8/3/2016 10:10:39	8.989	10.81	20.73	21.82
18	8/3/2016 10:10:40	8.989	10.75	20.73	21.82
19	8/3/2016 10:10:41	8.989	10.81	20.73	21.82
20	8/3/2016 10:10:42	8.989	10.75	20.73	21.82
21	8/3/2016 10:10:43	8.99	10.81	20.74	21.81
22	8/3/2016 10:10:44	8.99	10.81	20.74	21.81
23	8/3/2016 10:10:45	8.989	10.81	20.73	21.82
24	8/3/2016 10:10:46	8.989	10.81	20.73	21.82
25	8/3/2016 10:10:47	8.99	10.75	20.74	21.81
26	8/3/2016 10:10:48	8.989	10.81	20.73	21.82
27	8/3/2016 10:10:49	8.989	10.81	20.73	21.82
28	8/3/2016 10:10:50	8.989	10.81	20.73	21.82
29	8/3/2016 10:10:51	8.989	10.75	20.73	21.82
30	8/3/2016 10:10:52	8.989	10.81	20.73	21.82
31	8/3/2016 10:10:53	8.989	10.81	20.73	21.82
32	8/3/2016 10:10:54	8.989	10.81	20.73	21.82
33	8/3/2016 10:10:55	8.99	10.81	20.74	21.81
34	8/3/2016 10:10:56	8.99	10.81	20.74	21.81
35	8/3/2016 10:10:57	8.99	10.81	20.74	21.81
36	8/3/2016 10:10:58	8.99	10.81	20.74	21.81
37	8/3/2016 10:10:59	8.99	10.81	20.74	21.81
38	8/3/2016 10:11:00	8.99	10.81	20.74	21.81
39	8/3/2016 10:11:01	8.99	10.81	20.74	21.81
40	8/3/2016 10:11:02	8.989	10.81	20.73	21.82
41	8/3/2016 10:11:03	8.99	10.81	20.74	21.81
42	8/3/2016 10:11:04	8.989	10.81	20.73	21.82
43	8/3/2016 10:11:05	8.989	10.81	20.73	21.82
44	8/3/2016 10:11:06	8.99	10.81	20.74	21.81
45	8/3/2016 10:11:07	8.99	10.81	20.74	21.81
46	8/3/2016 10:11:08	8.99	10.81	20.74	21.81
47	8/3/2016 10:11:09	8.99	10.81	20.74	21.81

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 10:11:10	8.99	10.81	20.74	21.81
49	8/3/2016 10:11:11	8.989	10.81	20.73	21.82
50	8/3/2016 10:11:12	8.99	10.81	20.74	21.81
51	8/3/2016 10:11:13	8.99	10.81	20.74	21.81
52	8/3/2016 10:11:14	8.989	10.81	20.73	21.82
53	8/3/2016 10:11:15	8.989	10.81	20.73	21.82
54	8/3/2016 10:11:16	8.989	10.81	20.73	21.82
55	8/3/2016 10:11:17	8.99	10.81	20.74	21.81
56	8/3/2016 10:11:18	8.989	10.81	20.73	21.82
57	8/3/2016 10:11:19	8.989	10.81	20.73	21.82
58	8/3/2016 10:11:20	8.989	10.81	20.73	21.82
59	8/3/2016 10:11:21	8.99	10.81	20.74	21.81
60	8/3/2016 10:11:22	8.989	10.81	20.73	21.82
61	8/3/2016 10:11:23	8.989	10.81	20.73	21.82
62	8/3/2016 10:11:24	8.989	10.81	20.73	21.82
63	8/3/2016 10:11:25	8.99	10.81	20.74	21.81
64	8/3/2016 10:11:26	8.989	10.81	20.73	21.82
65	8/3/2016 10:11:27	8.989	10.81	20.73	21.82
66	8/3/2016 10:11:28	8.989	10.81	20.73	21.82
67	8/3/2016 10:11:29	8.989	10.81	20.73	21.82
68	8/3/2016 10:11:30	8.99	10.81	20.74	21.81
69	8/3/2016 10:11:31	8.989	10.81	20.73	21.82
70	8/3/2016 10:11:32	8.989	10.81	20.73	21.82
71	8/3/2016 10:11:33	8.989	10.81	20.73	21.82
72	8/3/2016 10:11:34	8.989	10.81	20.73	21.82
73	8/3/2016 10:11:35	8.989	10.81	20.73	21.82
74	8/3/2016 10:11:36	8.989	10.81	20.73	21.82
75	8/3/2016 10:11:37	8.989	10.81	20.73	21.82
76	8/3/2016 10:11:38	8.989	10.81	20.73	21.82
77	8/3/2016 10:11:39	8.989	10.81	20.73	21.82
78	8/3/2016 10:11:40	8.989	10.81	20.73	21.82
79	8/3/2016 10:11:41	8.99	10.81	20.74	21.81
80	8/3/2016 10:11:42	8.989	10.81	20.73	21.82
81	8/3/2016 10:11:43	8.989	10.81	20.73	21.82
82	8/3/2016 10:11:44	8.989	10.81	20.73	21.82
83	8/3/2016 10:11:45	8.989	10.81	20.73	21.82
84	8/3/2016 10:11:46	8.989	10.81	20.73	21.82
85	8/3/2016 10:11:47	8.989	10.81	20.73	21.82
86	8/3/2016 10:11:48	8.988	10.81	20.73	21.82
87	8/3/2016 10:11:49	8.989	10.81	20.73	21.82
88	8/3/2016 10:11:50	8.989	10.81	20.73	21.82
89	8/3/2016 10:11:51	8.989	10.81	20.73	21.82
90	8/3/2016 10:11:52	8.989	10.81	20.73	21.82
91	8/3/2016 10:11:53	8.989	10.81	20.73	21.82
92	8/3/2016 10:11:54	8.989	10.81	20.73	21.82
93	8/3/2016 10:11:55	8.99	10.81	20.74	21.81
94	8/3/2016 10:11:56	8.989	10.81	20.73	21.82
95	8/3/2016 10:11:57	8.989	10.81	20.73	21.82
96	8/3/2016 10:11:58	8.989	10.81	20.73	21.82
97	8/3/2016 10:11:59	8.989	10.81	20.73	21.82
98	8/3/2016 10:12:00	8.989	10.81	20.73	21.82

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-13
Test: Slug In

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-13 Slug In
# Records	248

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.209	11.38
Maximum	2.711	12.13
Mean	2.254	11.97
Variance	0.003	0.037
Std Deviation	0.055	0.192

Measured DTW (ft btoc) = 18.85

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 12:24:26	2.209	12	5.10	18.85
2	8/3/2016 12:24:27	2.21	12.06	5.10	18.85
3	8/3/2016 12:24:28	2.21	12.06	5.10	18.85
4	8/3/2016 12:24:29	2.21	12.06	5.10	18.85
5	8/3/2016 12:24:30	2.711	12.13	6.25	17.70
6	8/3/2016 12:24:31	2.553	12.06	5.89	18.06
7	8/3/2016 12:24:32	2.535	12.13	5.85	18.10
8	8/3/2016 12:24:33	2.485	12.13	5.73	18.22
9	8/3/2016 12:24:34	2.449	12.13	5.65	18.30
10	8/3/2016 12:24:35	2.422	12.13	5.59	18.36
11	8/3/2016 12:24:36	2.399	12.13	5.53	18.42
12	8/3/2016 12:24:37	2.382	12.13	5.49	18.46
13	8/3/2016 12:24:38	2.368	12.13	5.46	18.49
14	8/3/2016 12:24:39	2.357	12.13	5.44	18.51
15	8/3/2016 12:24:40	2.347	12.13	5.41	18.54
16	8/3/2016 12:24:41	2.339	12.13	5.40	18.55
17	8/3/2016 12:24:42	2.333	12.13	5.38	18.57
18	8/3/2016 12:24:43	2.328	12.13	5.37	18.58
19	8/3/2016 12:24:44	2.324	12.13	5.36	18.59
20	8/3/2016 12:24:45	2.32	12.13	5.35	18.60
21	8/3/2016 12:24:46	2.316	12.13	5.34	18.61
22	8/3/2016 12:24:47	2.313	12.13	5.34	18.61
23	8/3/2016 12:24:48	2.311	12.13	5.33	18.62
24	8/3/2016 12:24:49	2.308	12.13	5.32	18.63
25	8/3/2016 12:24:50	2.305	12.13	5.32	18.63
26	8/3/2016 12:24:51	2.303	12.13	5.31	18.64
27	8/3/2016 12:24:52	2.302	12.13	5.31	18.64
28	8/3/2016 12:24:53	2.299	12.13	5.30	18.65
29	8/3/2016 12:24:54	2.297	12.13	5.30	18.65
30	8/3/2016 12:24:55	2.295	12.13	5.29	18.66
31	8/3/2016 12:24:56	2.294	12.13	5.29	18.66
32	8/3/2016 12:24:57	2.292	12.13	5.29	18.66
33	8/3/2016 12:24:58	2.291	12.13	5.28	18.67
34	8/3/2016 12:24:59	2.289	12.13	5.28	18.67
35	8/3/2016 12:25:00	2.288	12.13	5.28	18.67
36	8/3/2016 12:25:01	2.287	12.13	5.28	18.67
37	8/3/2016 12:25:02	2.285	12.13	5.27	18.68
38	8/3/2016 12:25:03	2.284	12.13	5.27	18.68
39	8/3/2016 12:25:04	2.283	12.13	5.27	18.68
40	8/3/2016 12:25:05	2.281	12.13	5.26	18.69
41	8/3/2016 12:25:06	2.28	12.13	5.26	18.69
42	8/3/2016 12:25:07	2.279	12.13	5.26	18.69
43	8/3/2016 12:25:08	2.278	12.13	5.25	18.70
44	8/3/2016 12:25:09	2.277	12.13	5.25	18.70
45	8/3/2016 12:25:10	2.275	12.13	5.25	18.70
46	8/3/2016 12:25:11	2.274	12.13	5.25	18.70
47	8/3/2016 12:25:12	2.273	12.13	5.24	18.71

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 12:25:13	2.273	12.13	5.24	18.71
49	8/3/2016 12:25:14	2.271	12.13	5.24	18.71
50	8/3/2016 12:25:15	2.27	12.13	5.24	18.71
51	8/3/2016 12:25:16	2.27	12.13	5.24	18.71
52	8/3/2016 12:25:17	2.269	12.13	5.23	18.72
53	8/3/2016 12:25:18	2.268	12.13	5.23	18.72
54	8/3/2016 12:25:19	2.267	12.13	5.23	18.72
55	8/3/2016 12:25:20	2.266	12.13	5.23	18.72
56	8/3/2016 12:25:21	2.266	12.13	5.23	18.72
57	8/3/2016 12:25:22	2.265	12.13	5.22	18.73
58	8/3/2016 12:25:23	2.265	12.13	5.22	18.73
59	8/3/2016 12:25:24	2.263	12.13	5.22	18.73
60	8/3/2016 12:25:25	2.262	12.13	5.22	18.73
61	8/3/2016 12:25:26	2.262	12.06	5.22	18.73
62	8/3/2016 12:25:27	2.262	12.13	5.22	18.73
63	8/3/2016 12:25:28	2.261	12.06	5.22	18.73
64	8/3/2016 12:25:29	2.26	12.06	5.21	18.74
65	8/3/2016 12:25:30	2.26	12.06	5.21	18.74
66	8/3/2016 12:25:31	2.26	12.13	5.21	18.74
67	8/3/2016 12:25:32	2.259	12.13	5.21	18.74
68	8/3/2016 12:25:33	2.258	12.06	5.21	18.74
69	8/3/2016 12:25:34	2.258	12.06	5.21	18.74
70	8/3/2016 12:25:35	2.258	12.13	5.21	18.74
71	8/3/2016 12:25:36	2.257	12.06	5.21	18.74
72	8/3/2016 12:25:37	2.256	12.13	5.20	18.75
73	8/3/2016 12:25:38	2.256	12.06	5.20	18.75
74	8/3/2016 12:25:39	2.256	12.06	5.20	18.75
75	8/3/2016 12:25:40	2.255	12.06	5.20	18.75
76	8/3/2016 12:25:41	2.255	12.06	5.20	18.75
77	8/3/2016 12:25:42	2.253	12.06	5.20	18.75
78	8/3/2016 12:25:43	2.253	12.06	5.20	18.75
79	8/3/2016 12:25:44	2.252	12.06	5.19	18.76
80	8/3/2016 12:25:45	2.252	12.06	5.19	18.76
81	8/3/2016 12:25:46	2.252	12.06	5.19	18.76
82	8/3/2016 12:25:47	2.251	12.06	5.19	18.76
83	8/3/2016 12:25:48	2.251	12.06	5.19	18.76
84	8/3/2016 12:25:49	2.25	12.06	5.19	18.76
85	8/3/2016 12:25:50	2.25	12.06	5.19	18.76
86	8/3/2016 12:25:51	2.25	12.06	5.19	18.76
87	8/3/2016 12:25:52	2.249	12.06	5.19	18.76
88	8/3/2016 12:25:53	2.249	12.06	5.19	18.76
89	8/3/2016 12:25:54	2.249	12.06	5.19	18.76
90	8/3/2016 12:25:55	2.248	12.06	5.19	18.76
91	8/3/2016 12:25:56	2.248	12.06	5.19	18.76
92	8/3/2016 12:25:57	2.248	12.06	5.19	18.76
93	8/3/2016 12:25:58	2.247	12.06	5.18	18.77
94	8/3/2016 12:25:59	2.247	12.06	5.18	18.77
95	8/3/2016 12:26:00	2.247	12.06	5.18	18.77
96	8/3/2016 12:26:01	2.247	12.06	5.18	18.77
97	8/3/2016 12:26:02	2.246	12.06	5.18	18.77
98	8/3/2016 12:26:03	2.246	12.06	5.18	18.77
99	8/3/2016 12:26:04	2.246	12.06	5.18	18.77
100	8/3/2016 12:26:05	2.246	12.06	5.18	18.77
101	8/3/2016 12:26:06	2.245	12.06	5.18	18.77
102	8/3/2016 12:26:07	2.245	12.06	5.18	18.77
103	8/3/2016 12:26:08	2.245	12.06	5.18	18.77
104	8/3/2016 12:26:09	2.245	12.06	5.18	18.77
105	8/3/2016 12:26:10	2.245	12.06	5.18	18.77
106	8/3/2016 12:26:11	2.245	12.06	5.18	18.77
107	8/3/2016 12:26:12	2.245	12.06	5.18	18.77
108	8/3/2016 12:26:13	2.244	12.06	5.18	18.77
109	8/3/2016 12:26:14	2.244	12.06	5.18	18.77
110	8/3/2016 12:26:15	2.244	12.06	5.18	18.77
111	8/3/2016 12:26:16	2.244	12.06	5.18	18.77
112	8/3/2016 12:26:17	2.244	12.06	5.18	18.77
113	8/3/2016 12:26:18	2.243	12.06	5.17	18.78
114	8/3/2016 12:26:19	2.243	12.06	5.17	18.78
115	8/3/2016 12:26:20	2.243	12.06	5.17	18.78
116	8/3/2016 12:26:21	2.242	12.06	5.17	18.78
117	8/3/2016 12:26:22	2.242	12.06	5.17	18.78
118	8/3/2016 12:26:23	2.242	12.06	5.17	18.78
119	8/3/2016 12:26:24	2.242	12.06	5.17	18.78

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 12:26:25	2.242	12.06	5.17	18.78
121	8/3/2016 12:26:26	2.242	12.06	5.17	18.78
122	8/3/2016 12:26:27	2.242	12	5.17	18.78
123	8/3/2016 12:26:28	2.241	12.06	5.17	18.78
124	8/3/2016 12:26:29	2.241	12.06	5.17	18.78
125	8/3/2016 12:26:30	2.241	12.06	5.17	18.78
126	8/3/2016 12:26:31	2.241	12.06	5.17	18.78
127	8/3/2016 12:26:32	2.24	12	5.17	18.78
128	8/3/2016 12:26:33	2.24	12.06	5.17	18.78
129	8/3/2016 12:26:34	2.24	12.06	5.17	18.78
130	8/3/2016 12:26:35	2.24	12.06	5.17	18.78
131	8/3/2016 12:26:36	2.24	12	5.17	18.78
132	8/3/2016 12:26:37	2.239	12.06	5.16	18.79
133	8/3/2016 12:26:38	2.239	12	5.16	18.79
134	8/3/2016 12:26:39	2.239	12.06	5.16	18.79
135	8/3/2016 12:26:40	2.239	12.06	5.16	18.79
136	8/3/2016 12:26:41	2.238	12	5.16	18.79
137	8/3/2016 12:26:42	2.238	12.06	5.16	18.79
138	8/3/2016 12:26:43	2.239	12	5.16	18.79
139	8/3/2016 12:26:44	2.238	12.06	5.16	18.79
140	8/3/2016 12:26:45	2.238	12	5.16	18.79
141	8/3/2016 12:26:46	2.238	12	5.16	18.79
142	8/3/2016 12:26:47	2.238	12	5.16	18.79
143	8/3/2016 12:26:48	2.238	12	5.16	18.79
144	8/3/2016 12:26:49	2.237	12	5.16	18.79
145	8/3/2016 12:26:50	2.238	12.06	5.16	18.79
146	8/3/2016 12:26:51	2.237	12.06	5.16	18.79
147	8/3/2016 12:26:52	2.237	12	5.16	18.79
148	8/3/2016 12:26:53	2.236	12	5.16	18.79
149	8/3/2016 12:26:54	2.237	12	5.16	18.79
150	8/3/2016 12:26:55	2.237	12	5.16	18.79
151	8/3/2016 12:26:56	2.236	12	5.16	18.79
152	8/3/2016 12:26:57	2.236	12	5.16	18.79
153	8/3/2016 12:26:58	2.236	12	5.16	18.79
154	8/3/2016 12:26:59	2.236	12	5.16	18.79
155	8/3/2016 12:27:00	2.236	12	5.16	18.79
156	8/3/2016 12:27:01	2.236	12	5.16	18.79
157	8/3/2016 12:27:02	2.236	12	5.16	18.79
158	8/3/2016 12:27:03	2.235	12	5.16	18.79
159	8/3/2016 12:27:04	2.235	12	5.16	18.79
160	8/3/2016 12:27:05	2.235	12	5.16	18.79
161	8/3/2016 12:27:06	2.235	12	5.16	18.79
162	8/3/2016 12:27:07	2.235	12	5.16	18.79
163	8/3/2016 12:27:08	2.235	12	5.16	18.79
164	8/3/2016 12:27:09	2.235	12	5.16	18.79
165	8/3/2016 12:27:10	2.235	12	5.16	18.79
166	8/3/2016 12:27:11	2.235	12	5.16	18.79
167	8/3/2016 12:27:12	2.234	12	5.15	18.80
168	8/3/2016 12:27:13	2.235	12	5.16	18.79
169	8/3/2016 12:27:14	2.234	12	5.15	18.80
170	8/3/2016 12:27:15	2.234	12	5.15	18.80
171	8/3/2016 12:27:16	2.234	12	5.15	18.80
172	8/3/2016 12:27:17	2.234	12	5.15	18.80
173	8/3/2016 12:27:18	2.234	12	5.15	18.80
174	8/3/2016 12:27:19	2.234	12	5.15	18.80
175	8/3/2016 12:27:20	2.234	12	5.15	18.80
176	8/3/2016 12:27:21	2.233	12	5.15	18.80
177	8/3/2016 12:27:22	2.234	12	5.15	18.80
178	8/3/2016 12:27:23	2.233	12	5.15	18.80
179	8/3/2016 12:27:24	2.233	12	5.15	18.80
180	8/3/2016 12:27:25	2.233	12	5.15	18.80
181	8/3/2016 12:27:26	2.233	12	5.15	18.80
182	8/3/2016 12:27:27	2.233	12	5.15	18.80
183	8/3/2016 12:27:28	2.233	12	5.15	18.80
184	8/3/2016 12:27:29	2.233	12	5.15	18.80
185	8/3/2016 12:27:30	2.233	12	5.15	18.80
186	8/3/2016 12:27:31	2.232	12	5.15	18.80
187	8/3/2016 12:27:32	2.232	12	5.15	18.80
188	8/3/2016 12:27:33	2.233	12	5.15	18.80
189	8/3/2016 12:27:34	2.232	12	5.15	18.80
190	8/3/2016 12:27:35	2.232	12	5.15	18.80
191	8/3/2016 12:27:36	2.232	12	5.15	18.80

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 12:27:37	2.232	12	5.15	18.80
193	8/3/2016 12:27:38	2.232	12	5.15	18.80
194	8/3/2016 12:27:39	2.232	12	5.15	18.80
195	8/3/2016 12:27:40	2.231	12	5.15	18.80
196	8/3/2016 12:27:41	2.231	12	5.15	18.80
197	8/3/2016 12:27:42	2.231	12	5.15	18.80
198	8/3/2016 12:27:43	2.231	11.94	5.15	18.80
199	8/3/2016 12:27:44	2.231	12	5.15	18.80
200	8/3/2016 12:27:45	2.231	12	5.15	18.80
201	8/3/2016 12:27:55	2.23	11.81	5.14	18.81
202	8/3/2016 12:28:05	2.228	11.75	5.14	18.81
203	8/3/2016 12:28:15	2.228	11.75	5.14	18.81
204	8/3/2016 12:28:25	2.227	11.69	5.14	18.81
205	8/3/2016 12:28:35	2.226	11.69	5.13	18.82
206	8/3/2016 12:28:45	2.225	11.69	5.13	18.82
207	8/3/2016 12:28:55	2.224	11.63	5.13	18.82
208	8/3/2016 12:29:05	2.223	11.63	5.13	18.82
209	8/3/2016 12:29:15	2.222	11.63	5.13	18.82
210	8/3/2016 12:29:25	2.221	11.56	5.12	18.83
211	8/3/2016 12:29:35	2.22	11.56	5.12	18.83
212	8/3/2016 12:29:45	2.219	11.56	5.12	18.83
213	8/3/2016 12:29:55	2.218	11.56	5.12	18.83
214	8/3/2016 12:30:05	2.219	11.69	5.12	18.83
215	8/3/2016 12:30:15	2.217	11.69	5.11	18.84
216	8/3/2016 12:30:25	2.217	11.69	5.11	18.84
217	8/3/2016 12:30:35	2.217	11.75	5.11	18.84
218	8/3/2016 12:30:45	2.215	11.75	5.11	18.84
219	8/3/2016 12:30:55	2.215	11.75	5.11	18.84
220	8/3/2016 12:31:05	2.214	11.75	5.11	18.84
221	8/3/2016 12:31:15	2.214	11.69	5.11	18.84
222	8/3/2016 12:31:25	2.214	11.63	5.11	18.84
223	8/3/2016 12:31:35	2.213	11.56	5.10	18.85
224	8/3/2016 12:31:45	2.213	11.56	5.10	18.85
225	8/3/2016 12:31:55	2.213	11.5	5.10	18.85
226	8/3/2016 12:32:05	2.213	11.5	5.10	18.85
227	8/3/2016 12:32:15	2.213	11.5	5.10	18.85
228	8/3/2016 12:32:25	2.212	11.5	5.10	18.85
229	8/3/2016 12:32:35	2.213	11.44	5.10	18.85
230	8/3/2016 12:32:45	2.212	11.44	5.10	18.85
231	8/3/2016 12:32:55	2.212	11.44	5.10	18.85
232	8/3/2016 12:33:05	2.212	11.44	5.10	18.85
233	8/3/2016 12:33:15	2.211	11.44	5.10	18.85
234	8/3/2016 12:33:25	2.211	11.38	5.10	18.85
235	8/3/2016 12:33:35	2.211	11.38	5.10	18.85
236	8/3/2016 12:33:45	2.211	11.5	5.10	18.85
237	8/3/2016 12:33:55	2.211	11.56	5.10	18.85
238	8/3/2016 12:34:05	2.211	11.56	5.10	18.85
239	8/3/2016 12:34:15	2.21	11.63	5.10	18.85
240	8/3/2016 12:34:25	2.21	11.63	5.10	18.85
241	8/3/2016 12:34:35	2.21	11.63	5.10	18.85
242	8/3/2016 12:34:45	2.21	11.63	5.10	18.85
243	8/3/2016 12:34:55	2.21	11.63	5.10	18.85
244	8/3/2016 12:35:05	2.21	11.63	5.10	18.85
245	8/3/2016 12:35:15	2.21	11.63	5.10	18.85
246	8/3/2016 12:35:25	2.21	11.63	5.10	18.85
247	8/3/2016 12:35:35	2.21	11.63	5.10	18.85
248	8/3/2016 12:35:45	2.21	11.69	5.10	18.85

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-13
Test: Slug Out

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-13 Slug Out
# Records	256

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	1.733	11.13
Maximum	2.209	11.63
Mean	2.161	11.49
Variance	0.0038	0.017
Std Deviation	0.0618	0.131

Measured DTW (ft btoc) = 18.85

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 12:38:06	2.209	11.38	5.10	18.85
2	8/3/2016 12:38:07	2.209	11.44	5.10	18.85
3	8/3/2016 12:38:08	2.209	11.44	5.10	18.85
4	8/3/2016 12:38:09	2.209	11.44	5.10	18.85
5	8/3/2016 12:38:10	2.209	11.44	5.10	18.85
6	8/3/2016 12:38:11	2.209	11.44	5.10	18.85
7	8/3/2016 12:38:12	2.209	11.5	5.10	18.85
8	8/3/2016 12:38:13	2.209	11.5	5.10	18.85
9	8/3/2016 12:38:14	2.209	11.5	5.10	18.85
10	8/3/2016 12:38:15	2.209	11.5	5.10	18.85
11	8/3/2016 12:38:16	2.137	11.5	4.93	19.02
12	8/3/2016 12:38:17	1.785	11.5	4.12	19.83
13	8/3/2016 12:38:18	1.733	11.5	4.00	19.95
14	8/3/2016 12:38:19	1.786	11.5	4.12	19.83
15	8/3/2016 12:38:20	1.843	11.5	4.25	19.70
16	8/3/2016 12:38:21	1.896	11.5	4.37	19.58
17	8/3/2016 12:38:22	1.941	11.5	4.48	19.47
18	8/3/2016 12:38:23	1.978	11.5	4.56	19.39
19	8/3/2016 12:38:24	2.008	11.5	4.63	19.32
20	8/3/2016 12:38:25	2.033	11.5	4.69	19.26
21	8/3/2016 12:38:26	2.05	11.5	4.73	19.22
22	8/3/2016 12:38:27	2.063	11.5	4.76	19.19
23	8/3/2016 12:38:28	2.072	11.5	4.78	19.17
24	8/3/2016 12:38:29	2.082	11.5	4.80	19.15
25	8/3/2016 12:38:30	2.089	11.5	4.82	19.13
26	8/3/2016 12:38:31	2.094	11.5	4.83	19.12
27	8/3/2016 12:38:32	2.099	11.5	4.84	19.11
28	8/3/2016 12:38:33	2.103	11.5	4.85	19.10
29	8/3/2016 12:38:34	2.107	11.5	4.86	19.09
30	8/3/2016 12:38:35	2.111	11.5	4.87	19.08
31	8/3/2016 12:38:36	2.113	11.5	4.87	19.08
32	8/3/2016 12:38:37	2.116	11.56	4.88	19.07
33	8/3/2016 12:38:38	2.119	11.5	4.89	19.06
34	8/3/2016 12:38:39	2.121	11.56	4.89	19.06
35	8/3/2016 12:38:40	2.124	11.56	4.90	19.05
36	8/3/2016 12:38:41	2.125	11.5	4.90	19.05
37	8/3/2016 12:38:42	2.127	11.5	4.91	19.04
38	8/3/2016 12:38:43	2.129	11.5	4.91	19.04
39	8/3/2016 12:38:44	2.13	11.56	4.91	19.04
40	8/3/2016 12:38:45	2.131	11.56	4.92	19.03
41	8/3/2016 12:38:46	2.133	11.56	4.92	19.03
42	8/3/2016 12:38:47	2.134	11.56	4.92	19.03
43	8/3/2016 12:38:48	2.134	11.56	4.92	19.03
44	8/3/2016 12:38:49	2.136	11.56	4.93	19.02
45	8/3/2016 12:38:50	2.137	11.56	4.93	19.02
46	8/3/2016 12:38:51	2.138	11.56	4.93	19.02
47	8/3/2016 12:38:52	2.139	11.56	4.93	19.02

48	8/3/2016 12:38:53	2.139	11.56	4.93	19.02
49	8/3/2016 12:38:54	2.14	11.5	4.94	19.01
50	8/3/2016 12:38:55	2.141	11.56	4.94	19.01
51	8/3/2016 12:38:56	2.142	11.56	4.94	19.01
52	8/3/2016 12:38:57	2.143	11.56	4.94	19.01
53	8/3/2016 12:38:58	2.144	11.5	4.95	19.00
54	8/3/2016 12:38:59	2.144	11.56	4.95	19.00
55	8/3/2016 12:39:00	2.145	11.56	4.95	19.00
56	8/3/2016 12:39:01	2.146	11.56	4.95	19.00
57	8/3/2016 12:39:02	2.146	11.56	4.95	19.00
58	8/3/2016 12:39:03	2.147	11.56	4.95	19.00
59	8/3/2016 12:39:04	2.148	11.56	4.95	19.00
60	8/3/2016 12:39:05	2.148	11.56	4.95	19.00
61	8/3/2016 12:39:06	2.149	11.56	4.96	18.99
62	8/3/2016 12:39:07	2.149	11.56	4.96	18.99
63	8/3/2016 12:39:08	2.15	11.56	4.96	18.99
64	8/3/2016 12:39:09	2.151	11.56	4.96	18.99
65	8/3/2016 12:39:10	2.151	11.56	4.96	18.99
66	8/3/2016 12:39:11	2.151	11.56	4.96	18.99
67	8/3/2016 12:39:12	2.152	11.56	4.96	18.99
68	8/3/2016 12:39:13	2.152	11.56	4.96	18.99
69	8/3/2016 12:39:14	2.152	11.56	4.96	18.99
70	8/3/2016 12:39:15	2.153	11.56	4.97	18.98
71	8/3/2016 12:39:16	2.153	11.56	4.97	18.98
72	8/3/2016 12:39:17	2.154	11.56	4.97	18.98
73	8/3/2016 12:39:18	2.154	11.56	4.97	18.98
74	8/3/2016 12:39:19	2.154	11.56	4.97	18.98
75	8/3/2016 12:39:20	2.156	11.56	4.97	18.98
76	8/3/2016 12:39:21	2.156	11.56	4.97	18.98
77	8/3/2016 12:39:22	2.156	11.56	4.97	18.98
78	8/3/2016 12:39:23	2.156	11.56	4.97	18.98
79	8/3/2016 12:39:24	2.156	11.56	4.97	18.98
80	8/3/2016 12:39:25	2.157	11.56	4.98	18.97
81	8/3/2016 12:39:26	2.158	11.56	4.98	18.97
82	8/3/2016 12:39:27	2.157	11.56	4.98	18.97
83	8/3/2016 12:39:28	2.158	11.56	4.98	18.97
84	8/3/2016 12:39:29	2.159	11.56	4.98	18.97
85	8/3/2016 12:39:30	2.159	11.56	4.98	18.97
86	8/3/2016 12:39:31	2.159	11.56	4.98	18.97
87	8/3/2016 12:39:32	2.16	11.56	4.98	18.97
88	8/3/2016 12:39:33	2.16	11.56	4.98	18.97
89	8/3/2016 12:39:34	2.161	11.56	4.98	18.97
90	8/3/2016 12:39:35	2.161	11.56	4.98	18.97
91	8/3/2016 12:39:36	2.161	11.56	4.98	18.97
92	8/3/2016 12:39:37	2.161	11.56	4.98	18.97
93	8/3/2016 12:39:38	2.162	11.56	4.99	18.96
94	8/3/2016 12:39:39	2.162	11.56	4.99	18.96
95	8/3/2016 12:39:40	2.163	11.56	4.99	18.96
96	8/3/2016 12:39:41	2.163	11.56	4.99	18.96
97	8/3/2016 12:39:42	2.164	11.56	4.99	18.96
98	8/3/2016 12:39:43	2.164	11.56	4.99	18.96
99	8/3/2016 12:39:44	2.164	11.56	4.99	18.96
100	8/3/2016 12:39:45	2.164	11.56	4.99	18.96
101	8/3/2016 12:39:46	2.165	11.56	4.99	18.96
102	8/3/2016 12:39:47	2.165	11.56	4.99	18.96
103	8/3/2016 12:39:48	2.165	11.56	4.99	18.96
104	8/3/2016 12:39:49	2.166	11.56	5.00	18.95
105	8/3/2016 12:39:50	2.166	11.56	5.00	18.95
106	8/3/2016 12:39:51	2.166	11.56	5.00	18.95
107	8/3/2016 12:39:52	2.166	11.56	5.00	18.95
108	8/3/2016 12:39:53	2.167	11.56	5.00	18.95
109	8/3/2016 12:39:54	2.167	11.56	5.00	18.95
110	8/3/2016 12:39:55	2.167	11.56	5.00	18.95
111	8/3/2016 12:39:56	2.168	11.56	5.00	18.95
112	8/3/2016 12:39:57	2.168	11.56	5.00	18.95
113	8/3/2016 12:39:58	2.168	11.56	5.00	18.95
114	8/3/2016 12:39:59	2.168	11.56	5.00	18.95
115	8/3/2016 12:40:00	2.168	11.56	5.00	18.95
116	8/3/2016 12:40:01	2.168	11.56	5.00	18.95
117	8/3/2016 12:40:02	2.169	11.56	5.00	18.95
118	8/3/2016 12:40:03	2.169	11.56	5.00	18.95
119	8/3/2016 12:40:04	2.169	11.56	5.00	18.95
120	8/3/2016 12:40:05	2.169	11.56	5.00	18.95

121	8/3/2016 12:40:06	2.17	11.56	5.01	18.94
122	8/3/2016 12:40:07	2.17	11.56	5.01	18.94
123	8/3/2016 12:40:08	2.17	11.56	5.01	18.94
124	8/3/2016 12:40:09	2.171	11.56	5.01	18.94
125	8/3/2016 12:40:10	2.17	11.56	5.01	18.94
126	8/3/2016 12:40:11	2.171	11.56	5.01	18.94
127	8/3/2016 12:40:12	2.172	11.56	5.01	18.94
128	8/3/2016 12:40:13	2.172	11.63	5.01	18.94
129	8/3/2016 12:40:14	2.172	11.56	5.01	18.94
130	8/3/2016 12:40:15	2.172	11.56	5.01	18.94
131	8/3/2016 12:40:16	2.172	11.56	5.01	18.94
132	8/3/2016 12:40:17	2.172	11.56	5.01	18.94
133	8/3/2016 12:40:18	2.172	11.56	5.01	18.94
134	8/3/2016 12:40:19	2.174	11.56	5.01	18.94
135	8/3/2016 12:40:20	2.174	11.56	5.01	18.94
136	8/3/2016 12:40:21	2.174	11.56	5.01	18.94
137	8/3/2016 12:40:22	2.174	11.63	5.01	18.94
138	8/3/2016 12:40:23	2.175	11.56	5.02	18.93
139	8/3/2016 12:40:24	2.175	11.56	5.02	18.93
140	8/3/2016 12:40:25	2.175	11.63	5.02	18.93
141	8/3/2016 12:40:26	2.175	11.56	5.02	18.93
142	8/3/2016 12:40:27	2.175	11.56	5.02	18.93
143	8/3/2016 12:40:28	2.176	11.56	5.02	18.93
144	8/3/2016 12:40:29	2.176	11.56	5.02	18.93
145	8/3/2016 12:40:30	2.176	11.56	5.02	18.93
146	8/3/2016 12:40:31	2.176	11.56	5.02	18.93
147	8/3/2016 12:40:32	2.176	11.56	5.02	18.93
148	8/3/2016 12:40:33	2.176	11.56	5.02	18.93
149	8/3/2016 12:40:34	2.177	11.56	5.02	18.93
150	8/3/2016 12:40:35	2.176	11.56	5.02	18.93
151	8/3/2016 12:40:36	2.177	11.56	5.02	18.93
152	8/3/2016 12:40:37	2.177	11.56	5.02	18.93
153	8/3/2016 12:40:38	2.177	11.56	5.02	18.93
154	8/3/2016 12:40:39	2.178	11.56	5.02	18.93
155	8/3/2016 12:40:40	2.178	11.56	5.02	18.93
156	8/3/2016 12:40:41	2.178	11.56	5.02	18.93
157	8/3/2016 12:40:42	2.178	11.56	5.02	18.93
158	8/3/2016 12:40:43	2.178	11.56	5.02	18.93
159	8/3/2016 12:40:44	2.178	11.56	5.02	18.93
160	8/3/2016 12:40:45	2.178	11.56	5.02	18.93
161	8/3/2016 12:40:46	2.179	11.56	5.03	18.92
162	8/3/2016 12:40:47	2.179	11.56	5.03	18.92
163	8/3/2016 12:40:48	2.18	11.63	5.03	18.92
164	8/3/2016 12:40:49	2.18	11.56	5.03	18.92
165	8/3/2016 12:40:50	2.18	11.56	5.03	18.92
166	8/3/2016 12:40:51	2.18	11.56	5.03	18.92
167	8/3/2016 12:40:52	2.18	11.63	5.03	18.92
168	8/3/2016 12:40:53	2.18	11.56	5.03	18.92
169	8/3/2016 12:40:54	2.18	11.56	5.03	18.92
170	8/3/2016 12:40:55	2.18	11.56	5.03	18.92
171	8/3/2016 12:40:56	2.18	11.63	5.03	18.92
172	8/3/2016 12:40:57	2.181	11.56	5.03	18.92
173	8/3/2016 12:40:58	2.181	11.56	5.03	18.92
174	8/3/2016 12:40:59	2.181	11.63	5.03	18.92
175	8/3/2016 12:41:00	2.181	11.63	5.03	18.92
176	8/3/2016 12:41:01	2.181	11.56	5.03	18.92
177	8/3/2016 12:41:02	2.182	11.56	5.03	18.92
178	8/3/2016 12:41:03	2.182	11.56	5.03	18.92
179	8/3/2016 12:41:04	2.182	11.56	5.03	18.92
180	8/3/2016 12:41:05	2.182	11.63	5.03	18.92
181	8/3/2016 12:41:06	2.182	11.56	5.03	18.92
182	8/3/2016 12:41:07	2.182	11.56	5.03	18.92
183	8/3/2016 12:41:08	2.182	11.56	5.03	18.92
184	8/3/2016 12:41:09	2.182	11.56	5.03	18.92
185	8/3/2016 12:41:10	2.182	11.56	5.03	18.92
186	8/3/2016 12:41:11	2.183	11.63	5.04	18.91
187	8/3/2016 12:41:12	2.183	11.56	5.04	18.91
188	8/3/2016 12:41:13	2.183	11.56	5.04	18.91
189	8/3/2016 12:41:14	2.184	11.56	5.04	18.91
190	8/3/2016 12:41:15	2.183	11.63	5.04	18.91
191	8/3/2016 12:41:16	2.184	11.56	5.04	18.91
192	8/3/2016 12:41:17	2.183	11.63	5.04	18.91
193	8/3/2016 12:41:18	2.183	11.63	5.04	18.91

194	8/3/2016 12:41:19	2.184	11.56	5.04	18.91
195	8/3/2016 12:41:20	2.184	11.56	5.04	18.91
196	8/3/2016 12:41:21	2.184	11.56	5.04	18.91
197	8/3/2016 12:41:22	2.185	11.56	5.04	18.91
198	8/3/2016 12:41:23	2.185	11.63	5.04	18.91
199	8/3/2016 12:41:24	2.185	11.56	5.04	18.91
200	8/3/2016 12:41:25	2.185	11.56	5.04	18.91
201	8/3/2016 12:41:35	2.186	11.5	5.04	18.91
202	8/3/2016 12:41:45	2.187	11.44	5.04	18.91
203	8/3/2016 12:41:55	2.188	11.44	5.05	18.90
204	8/3/2016 12:42:05	2.189	11.38	5.05	18.90
205	8/3/2016 12:42:15	2.19	11.31	5.05	18.90
206	8/3/2016 12:42:25	2.191	11.31	5.05	18.90
207	8/3/2016 12:42:35	2.192	11.31	5.06	18.89
208	8/3/2016 12:42:45	2.193	11.31	5.06	18.89
209	8/3/2016 12:42:55	2.193	11.31	5.06	18.89
210	8/3/2016 12:43:05	2.194	11.25	5.06	18.89
211	8/3/2016 12:43:15	2.195	11.25	5.06	18.89
212	8/3/2016 12:43:25	2.195	11.25	5.06	18.89
213	8/3/2016 12:43:35	2.196	11.25	5.07	18.88
214	8/3/2016 12:43:45	2.197	11.25	5.07	18.88
215	8/3/2016 12:43:55	2.197	11.25	5.07	18.88
216	8/3/2016 12:44:05	2.198	11.25	5.07	18.88
217	8/3/2016 12:44:15	2.198	11.25	5.07	18.88
218	8/3/2016 12:44:25	2.199	11.19	5.07	18.88
219	8/3/2016 12:44:35	2.2	11.19	5.07	18.88
220	8/3/2016 12:44:45	2.2	11.19	5.07	18.88
221	8/3/2016 12:44:55	2.2	11.19	5.07	18.88
222	8/3/2016 12:45:05	2.2	11.19	5.07	18.88
223	8/3/2016 12:45:15	2.2	11.19	5.07	18.88
224	8/3/2016 12:45:25	2.2	11.19	5.07	18.88
225	8/3/2016 12:45:35	2.2	11.19	5.07	18.88
226	8/3/2016 12:45:45	2.201	11.19	5.08	18.87
227	8/3/2016 12:45:55	2.201	11.19	5.08	18.87
228	8/3/2016 12:46:05	2.201	11.19	5.08	18.87
229	8/3/2016 12:46:15	2.202	11.19	5.08	18.87
230	8/3/2016 12:46:25	2.202	11.19	5.08	18.87
231	8/3/2016 12:46:35	2.202	11.13	5.08	18.87
232	8/3/2016 12:46:45	2.203	11.13	5.08	18.87
233	8/3/2016 12:46:55	2.203	11.19	5.08	18.87
234	8/3/2016 12:47:05	2.203	11.13	5.08	18.87
235	8/3/2016 12:47:15	2.203	11.31	5.08	18.87
236	8/3/2016 12:47:25	2.203	11.31	5.08	18.87
237	8/3/2016 12:47:35	2.204	11.38	5.08	18.87
238	8/3/2016 12:47:45	2.205	11.38	5.09	18.86
239	8/3/2016 12:47:55	2.205	11.38	5.09	18.86
240	8/3/2016 12:48:05	2.205	11.44	5.09	18.86
241	8/3/2016 12:48:15	2.205	11.44	5.09	18.86
242	8/3/2016 12:48:25	2.205	11.44	5.09	18.86
243	8/3/2016 12:48:35	2.204	11.44	5.08	18.87
244	8/3/2016 12:48:45	2.205	11.31	5.09	18.86
245	8/3/2016 12:48:55	2.205	11.25	5.09	18.86
246	8/3/2016 12:49:05	2.205	11.25	5.09	18.86
247	8/3/2016 12:49:15	2.205	11.25	5.09	18.86
248	8/3/2016 12:49:25	2.206	11.25	5.09	18.86
249	8/3/2016 12:49:35	2.206	11.19	5.09	18.86
250	8/3/2016 12:49:45	2.205	11.19	5.09	18.86
251	8/3/2016 12:49:55	2.206	11.19	5.09	18.86
252	8/3/2016 12:50:05	2.206	11.19	5.09	18.86
253	8/3/2016 12:50:15	2.206	11.19	5.09	18.86
254	8/3/2016 12:50:25	2.206	11.19	5.09	18.86
255	8/3/2016 12:50:35	2.206	11.19	5.09	18.86
256	8/3/2016 12:50:45	2.207	11.19	5.09	18.86

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-15
Test: Slug In

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-15 Slug In
# Records	243

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	2.316	11.5
Maximum	2.946	12.44
Mean	2.36	12.14
Variance	0.0048	0.06
Std Deviation	0.0696	0.245

Measured DTW (ft btoc) = 17.41

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 14:27:33	2.318	12.44	5.35	17.41
2	8/3/2016 14:27:34	2.318	12.44	5.35	17.41
3	8/3/2016 14:27:35	2.319	12.44	5.35	17.41
4	8/3/2016 14:27:36	2.946	12.44	6.80	15.96
5	8/3/2016 14:27:37	2.76	12.44	6.37	16.39
6	8/3/2016 14:27:38	2.682	12.44	6.19	16.57
7	8/3/2016 14:27:39	2.662	12.44	6.14	16.62
8	8/3/2016 14:27:40	2.619	12.44	6.04	16.72
9	8/3/2016 14:27:41	2.586	12.44	5.97	16.79
10	8/3/2016 14:27:42	2.559	12.44	5.90	16.86
11	8/3/2016 14:27:43	2.535	12.44	5.85	16.91
12	8/3/2016 14:27:44	2.515	12.44	5.80	16.96
13	8/3/2016 14:27:45	2.499	12.44	5.76	17.00
14	8/3/2016 14:27:46	2.484	12.44	5.73	17.03
15	8/3/2016 14:27:47	2.472	12.44	5.70	17.06
16	8/3/2016 14:27:48	2.461	12.44	5.68	17.08
17	8/3/2016 14:27:49	2.452	12.44	5.66	17.10
18	8/3/2016 14:27:50	2.444	12.44	5.64	17.12
19	8/3/2016 14:27:51	2.436	12.44	5.62	17.14
20	8/3/2016 14:27:52	2.43	12.44	5.61	17.15
21	8/3/2016 14:27:53	2.425	12.44	5.59	17.17
22	8/3/2016 14:27:54	2.421	12.44	5.58	17.18
23	8/3/2016 14:27:55	2.418	12.44	5.58	17.18
24	8/3/2016 14:27:56	2.413	12.44	5.57	17.19
25	8/3/2016 14:27:57	2.41	12.44	5.56	17.20
26	8/3/2016 14:27:58	2.407	12.44	5.55	17.21
27	8/3/2016 14:27:59	2.405	12.38	5.55	17.21
28	8/3/2016 14:28:00	2.403	12.44	5.54	17.22
29	8/3/2016 14:28:01	2.4	12.44	5.54	17.22
30	8/3/2016 14:28:02	2.398	12.38	5.53	17.23
31	8/3/2016 14:28:03	2.397	12.38	5.53	17.23
32	8/3/2016 14:28:04	2.396	12.44	5.53	17.23
33	8/3/2016 14:28:05	2.393	12.38	5.52	17.24
34	8/3/2016 14:28:06	2.392	12.38	5.52	17.24
35	8/3/2016 14:28:07	2.39	12.38	5.51	17.25
36	8/3/2016 14:28:08	2.389	12.38	5.51	17.25
37	8/3/2016 14:28:09	2.388	12.38	5.51	17.25
38	8/3/2016 14:28:10	2.386	12.38	5.50	17.26
39	8/3/2016 14:28:11	2.385	12.38	5.50	17.26
40	8/3/2016 14:28:12	2.384	12.38	5.50	17.26
41	8/3/2016 14:28:13	2.383	12.38	5.50	17.26
42	8/3/2016 14:28:14	2.382	12.38	5.49	17.27
43	8/3/2016 14:28:15	2.382	12.38	5.49	17.27
44	8/3/2016 14:28:16	2.381	12.38	5.49	17.27
45	8/3/2016 14:28:17	2.38	12.38	5.49	17.27
46	8/3/2016 14:28:18	2.379	12.38	5.49	17.27
47	8/3/2016 14:28:19	2.378	12.38	5.49	17.27

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 14:28:20	2.377	12.38	5.48	17.28
49	8/3/2016 14:28:21	2.377	12.38	5.48	17.28
50	8/3/2016 14:28:22	2.376	12.38	5.48	17.28
51	8/3/2016 14:28:23	2.375	12.38	5.48	17.28
52	8/3/2016 14:28:24	2.374	12.38	5.48	17.28
53	8/3/2016 14:28:25	2.374	12.38	5.48	17.28
54	8/3/2016 14:28:26	2.373	12.38	5.47	17.29
55	8/3/2016 14:28:27	2.373	12.31	5.47	17.29
56	8/3/2016 14:28:28	2.372	12.31	5.47	17.29
57	8/3/2016 14:28:29	2.372	12.31	5.47	17.29
58	8/3/2016 14:28:30	2.371	12.31	5.47	17.29
59	8/3/2016 14:28:31	2.37	12.38	5.47	17.29
60	8/3/2016 14:28:32	2.37	12.38	5.47	17.29
61	8/3/2016 14:28:33	2.369	12.38	5.46	17.30
62	8/3/2016 14:28:34	2.368	12.31	5.46	17.30
63	8/3/2016 14:28:35	2.368	12.31	5.46	17.30
64	8/3/2016 14:28:36	2.367	12.31	5.46	17.30
65	8/3/2016 14:28:37	2.367	12.31	5.46	17.30
66	8/3/2016 14:28:38	2.366	12.31	5.46	17.30
67	8/3/2016 14:28:39	2.366	12.31	5.46	17.30
68	8/3/2016 14:28:40	2.365	12.31	5.46	17.30
69	8/3/2016 14:28:41	2.364	12.31	5.45	17.31
70	8/3/2016 14:28:42	2.363	12.31	5.45	17.31
71	8/3/2016 14:28:43	2.363	12.31	5.45	17.31
72	8/3/2016 14:28:44	2.362	12.31	5.45	17.31
73	8/3/2016 14:28:45	2.361	12.31	5.45	17.31
74	8/3/2016 14:28:46	2.361	12.31	5.45	17.31
75	8/3/2016 14:28:47	2.36	12.31	5.44	17.32
76	8/3/2016 14:28:48	2.36	12.31	5.44	17.32
77	8/3/2016 14:28:49	2.359	12.31	5.44	17.32
78	8/3/2016 14:28:50	2.358	12.31	5.44	17.32
79	8/3/2016 14:28:51	2.358	12.31	5.44	17.32
80	8/3/2016 14:28:52	2.357	12.31	5.44	17.32
81	8/3/2016 14:28:53	2.357	12.25	5.44	17.32
82	8/3/2016 14:28:54	2.356	12.25	5.43	17.33
83	8/3/2016 14:28:55	2.356	12.25	5.43	17.33
84	8/3/2016 14:28:56	2.355	12.31	5.43	17.33
85	8/3/2016 14:28:57	2.355	12.25	5.43	17.33
86	8/3/2016 14:28:58	2.354	12.31	5.43	17.33
87	8/3/2016 14:28:59	2.354	12.25	5.43	17.33
88	8/3/2016 14:29:00	2.354	12.25	5.43	17.33
89	8/3/2016 14:29:01	2.353	12.25	5.43	17.33
90	8/3/2016 14:29:02	2.353	12.25	5.43	17.33
91	8/3/2016 14:29:03	2.353	12.25	5.43	17.33
92	8/3/2016 14:29:04	2.351	12.25	5.42	17.34
93	8/3/2016 14:29:05	2.351	12.25	5.42	17.34
94	8/3/2016 14:29:06	2.351	12.25	5.42	17.34
95	8/3/2016 14:29:07	2.35	12.25	5.42	17.34
96	8/3/2016 14:29:08	2.35	12.25	5.42	17.34
97	8/3/2016 14:29:09	2.349	12.25	5.42	17.34
98	8/3/2016 14:29:10	2.349	12.25	5.42	17.34
99	8/3/2016 14:29:11	2.349	12.25	5.42	17.34
100	8/3/2016 14:29:12	2.349	12.25	5.42	17.34
101	8/3/2016 14:29:13	2.348	12.25	5.42	17.34
102	8/3/2016 14:29:14	2.348	12.25	5.42	17.34
103	8/3/2016 14:29:15	2.346	12.19	5.41	17.35
104	8/3/2016 14:29:16	2.347	12.25	5.41	17.35
105	8/3/2016 14:29:17	2.347	12.25	5.41	17.35
106	8/3/2016 14:29:18	2.345	12.19	5.41	17.35
107	8/3/2016 14:29:19	2.345	12.19	5.41	17.35
108	8/3/2016 14:29:20	2.344	12.25	5.41	17.35
109	8/3/2016 14:29:21	2.344	12.19	5.41	17.35
110	8/3/2016 14:29:22	2.344	12.19	5.41	17.35
111	8/3/2016 14:29:23	2.344	12.19	5.41	17.35
112	8/3/2016 14:29:24	2.343	12.19	5.40	17.36
113	8/3/2016 14:29:25	2.343	12.19	5.40	17.36
114	8/3/2016 14:29:26	2.342	12.19	5.40	17.36
115	8/3/2016 14:29:27	2.342	12.19	5.40	17.36
116	8/3/2016 14:29:28	2.342	12.19	5.40	17.36
117	8/3/2016 14:29:29	2.342	12.19	5.40	17.36
118	8/3/2016 14:29:30	2.341	12.19	5.40	17.36
119	8/3/2016 14:29:31	2.341	12.19	5.40	17.36

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 14:29:32	2.341	12.19	5.40	17.36
121	8/3/2016 14:29:33	2.341	12.19	5.40	17.36
122	8/3/2016 14:29:34	2.34	12.19	5.40	17.36
123	8/3/2016 14:29:35	2.34	12.19	5.40	17.36
124	8/3/2016 14:29:36	2.34	12.19	5.40	17.36
125	8/3/2016 14:29:37	2.339	12.19	5.40	17.36
126	8/3/2016 14:29:38	2.339	12.13	5.40	17.36
127	8/3/2016 14:29:39	2.339	12.19	5.40	17.36
128	8/3/2016 14:29:40	2.338	12.19	5.39	17.37
129	8/3/2016 14:29:41	2.338	12.13	5.39	17.37
130	8/3/2016 14:29:42	2.338	12.13	5.39	17.37
131	8/3/2016 14:29:43	2.338	12.19	5.39	17.37
132	8/3/2016 14:29:44	2.337	12.13	5.39	17.37
133	8/3/2016 14:29:45	2.338	12.13	5.39	17.37
134	8/3/2016 14:29:46	2.337	12.13	5.39	17.37
135	8/3/2016 14:29:47	2.337	12.13	5.39	17.37
136	8/3/2016 14:29:48	2.337	12.13	5.39	17.37
137	8/3/2016 14:29:49	2.337	12.13	5.39	17.37
138	8/3/2016 14:29:50	2.337	12.13	5.39	17.37
139	8/3/2016 14:29:51	2.337	12.13	5.39	17.37
140	8/3/2016 14:29:52	2.336	12.13	5.39	17.37
141	8/3/2016 14:29:53	2.336	12.13	5.39	17.37
142	8/3/2016 14:29:54	2.336	12.13	5.39	17.37
143	8/3/2016 14:29:55	2.335	12.13	5.39	17.37
144	8/3/2016 14:29:56	2.335	12.13	5.39	17.37
145	8/3/2016 14:29:57	2.336	12.13	5.39	17.37
146	8/3/2016 14:29:58	2.335	12.13	5.39	17.37
147	8/3/2016 14:29:59	2.335	12.13	5.39	17.37
148	8/3/2016 14:30:00	2.335	12.13	5.39	17.37
149	8/3/2016 14:30:01	2.334	12.13	5.38	17.38
150	8/3/2016 14:30:02	2.334	12.13	5.38	17.38
151	8/3/2016 14:30:03	2.334	12.13	5.38	17.38
152	8/3/2016 14:30:04	2.333	12.13	5.38	17.38
153	8/3/2016 14:30:05	2.334	12.13	5.38	17.38
154	8/3/2016 14:30:06	2.334	12.13	5.38	17.38
155	8/3/2016 14:30:07	2.334	12.13	5.38	17.38
156	8/3/2016 14:30:08	2.333	12.13	5.38	17.38
157	8/3/2016 14:30:09	2.333	12.13	5.38	17.38
158	8/3/2016 14:30:10	2.333	12.13	5.38	17.38
159	8/3/2016 14:30:11	2.333	12.06	5.38	17.38
160	8/3/2016 14:30:12	2.333	12.06	5.38	17.38
161	8/3/2016 14:30:13	2.332	12.06	5.38	17.38
162	8/3/2016 14:30:14	2.332	12.13	5.38	17.38
163	8/3/2016 14:30:15	2.332	12.06	5.38	17.38
164	8/3/2016 14:30:16	2.332	12.06	5.38	17.38
165	8/3/2016 14:30:17	2.332	12.06	5.38	17.38
166	8/3/2016 14:30:18	2.332	12.06	5.38	17.38
167	8/3/2016 14:30:19	2.332	12.06	5.38	17.38
168	8/3/2016 14:30:20	2.332	12.06	5.38	17.38
169	8/3/2016 14:30:21	2.331	12.06	5.38	17.38
170	8/3/2016 14:30:22	2.332	12.06	5.38	17.38
171	8/3/2016 14:30:23	2.331	12.06	5.38	17.38
172	8/3/2016 14:30:24	2.331	12.06	5.38	17.38
173	8/3/2016 14:30:25	2.331	12.06	5.38	17.38
174	8/3/2016 14:30:26	2.33	12.06	5.37	17.39
175	8/3/2016 14:30:27	2.331	12.06	5.38	17.38
176	8/3/2016 14:30:28	2.331	12.06	5.38	17.38
177	8/3/2016 14:30:29	2.33	12.06	5.37	17.39
178	8/3/2016 14:30:30	2.33	12.06	5.37	17.39
179	8/3/2016 14:30:31	2.331	12.06	5.38	17.38
180	8/3/2016 14:30:32	2.33	12.06	5.37	17.39
181	8/3/2016 14:30:33	2.33	12.06	5.37	17.39
182	8/3/2016 14:30:34	2.33	12	5.37	17.39
183	8/3/2016 14:30:35	2.33	12.06	5.37	17.39
184	8/3/2016 14:30:36	2.33	12.06	5.37	17.39
185	8/3/2016 14:30:37	2.33	12.06	5.37	17.39
186	8/3/2016 14:30:38	2.329	12.06	5.37	17.39
187	8/3/2016 14:30:39	2.329	12	5.37	17.39
188	8/3/2016 14:30:40	2.329	12	5.37	17.39
189	8/3/2016 14:30:41	2.329	12.06	5.37	17.39
190	8/3/2016 14:30:42	2.328	12.06	5.37	17.39
191	8/3/2016 14:30:43	2.329	12.06	5.37	17.39

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 14:30:44	2.329	12.06	5.37	17.39
193	8/3/2016 14:30:45	2.329	12	5.37	17.39
194	8/3/2016 14:30:46	2.328	12.06	5.37	17.39
195	8/3/2016 14:30:47	2.328	12	5.37	17.39
196	8/3/2016 14:30:48	2.328	12	5.37	17.39
197	8/3/2016 14:30:49	2.328	12	5.37	17.39
198	8/3/2016 14:30:50	2.328	12	5.37	17.39
199	8/3/2016 14:30:51	2.328	12	5.37	17.39
200	8/3/2016 14:30:52	2.328	12	5.37	17.39
201	8/3/2016 14:31:02	2.327	11.88	5.37	17.39
202	8/3/2016 14:31:12	2.326	11.81	5.37	17.39
203	8/3/2016 14:31:22	2.325	11.75	5.36	17.40
204	8/3/2016 14:31:32	2.323	11.75	5.36	17.40
205	8/3/2016 14:31:42	2.322	11.75	5.36	17.40
206	8/3/2016 14:31:52	2.322	11.69	5.36	17.40
207	8/3/2016 14:32:02	2.322	11.69	5.36	17.40
208	8/3/2016 14:32:12	2.322	11.63	5.36	17.40
209	8/3/2016 14:32:22	2.321	11.63	5.35	17.41
210	8/3/2016 14:32:32	2.322	11.63	5.36	17.40
211	8/3/2016 14:32:42	2.321	11.63	5.35	17.41
212	8/3/2016 14:32:52	2.321	11.63	5.35	17.41
213	8/3/2016 14:33:02	2.319	11.56	5.35	17.41
214	8/3/2016 14:33:12	2.32	11.56	5.35	17.41
215	8/3/2016 14:33:22	2.319	11.56	5.35	17.41
216	8/3/2016 14:33:32	2.318	11.56	5.35	17.41
217	8/3/2016 14:33:42	2.318	11.56	5.35	17.41
218	8/3/2016 14:33:52	2.318	11.56	5.35	17.41
219	8/3/2016 14:34:02	2.318	11.56	5.35	17.41
220	8/3/2016 14:34:12	2.317	11.5	5.34	17.42
221	8/3/2016 14:34:22	2.317	11.63	5.34	17.42
222	8/3/2016 14:34:32	2.318	11.69	5.35	17.41
223	8/3/2016 14:34:42	2.318	11.69	5.35	17.41
224	8/3/2016 14:34:52	2.318	11.75	5.35	17.41
225	8/3/2016 14:35:02	2.317	11.75	5.34	17.42
226	8/3/2016 14:35:12	2.317	11.75	5.34	17.42
227	8/3/2016 14:35:22	2.316	11.75	5.34	17.42
228	8/3/2016 14:35:32	2.317	11.75	5.34	17.42
229	8/3/2016 14:35:42	2.317	11.75	5.34	17.42
230	8/3/2016 14:35:52	2.317	11.81	5.34	17.42
231	8/3/2016 14:36:02	2.317	11.81	5.34	17.42
232	8/3/2016 14:36:12	2.317	11.75	5.34	17.42
233	8/3/2016 14:36:22	2.317	11.75	5.34	17.42
234	8/3/2016 14:36:32	2.317	11.81	5.34	17.42
235	8/3/2016 14:36:42	2.316	11.69	5.34	17.42
236	8/3/2016 14:36:52	2.317	11.63	5.34	17.42
237	8/3/2016 14:37:02	2.318	11.69	5.35	17.41
238	8/3/2016 14:37:12	2.317	11.75	5.34	17.42
239	8/3/2016 14:37:22	2.317	11.75	5.34	17.42
240	8/3/2016 14:37:32	2.317	11.75	5.34	17.42
241	8/3/2016 14:37:42	2.317	11.75	5.34	17.42
242	8/3/2016 14:37:52	2.317	11.75	5.34	17.42
243	8/3/2016 14:38:02	2.317	11.75	5.34	17.42

Site: Hartland 36 Gas Plant
Date: August 3, 2016
Monitor Well: MW-15
Test: Slug Out

Advanced Calibration Data		Cal Date	m2	m1	m0	b3	b2	b1	b0
	Block 0	8/6/2014 14:00	0	-1.30E-05	1.007681	3589.014	1.30E-05	4.93E-04	-8.41E-02
	Block 1	unknown	0	0	0	0	0	0	125

Field Calibration Data		Slope	Offset	Cal Date
	Pressure	1.003793955	-0.159000009	7/18/2016 11:35
	Temperature	1	0	4/6/2010 9:18

Sensor SN	21051019
Sensor Type	PT2X
Sensor Name	Geotech Rental #4577
File Name	MW-15 Slug Out
# Records	285

Statistical Data	Pressure(psi)	Temperature(degC)
Sensor Range	30 psig	-40 - +125 degC
Minimum	1.787	11.13
Maximum	2.319	11.69
Mean	2.281	11.53
Variance	0.0047	0.034
Std Deviation	0.0683	0.185

Measured DTW (ft btoc) = 17.41

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
1	8/3/2016 14:40:33	2.316	11.56	5.34	17.41
2	8/3/2016 14:40:34	2.316	11.56	5.34	17.41
3	8/3/2016 14:40:35	2.317	11.56	5.34	17.41
4	8/3/2016 14:40:36	2.316	11.63	5.34	17.41
5	8/3/2016 14:40:37	2.316	11.63	5.34	17.41
6	8/3/2016 14:40:38	2.317	11.56	5.34	17.41
7	8/3/2016 14:40:39	2.316	11.63	5.34	17.41
8	8/3/2016 14:40:40	2.317	11.63	5.34	17.41
9	8/3/2016 14:40:41	2.317	11.63	5.34	17.41
10	8/3/2016 14:40:42	2.317	11.63	5.34	17.41
11	8/3/2016 14:40:43	1.809	11.63	4.17	18.58
12	8/3/2016 14:40:44	1.787	11.63	4.12	18.63
13	8/3/2016 14:40:45	1.858	11.63	4.29	18.46
14	8/3/2016 14:40:46	1.923	11.63	4.44	18.31
15	8/3/2016 14:40:47	1.979	11.63	4.56	18.19
16	8/3/2016 14:40:48	2.028	11.63	4.68	18.07
17	8/3/2016 14:40:49	2.064	11.63	4.76	17.99
18	8/3/2016 14:40:50	2.093	11.63	4.83	17.92
19	8/3/2016 14:40:51	2.115	11.63	4.88	17.87
20	8/3/2016 14:40:52	2.134	11.63	4.92	17.83
21	8/3/2016 14:40:53	2.149	11.69	4.96	17.79
22	8/3/2016 14:40:54	2.161	11.63	4.98	17.77
23	8/3/2016 14:40:55	2.173	11.63	5.01	17.74
24	8/3/2016 14:40:56	2.182	11.63	5.03	17.72
25	8/3/2016 14:40:57	2.19	11.63	5.05	17.70
26	8/3/2016 14:40:58	2.197	11.63	5.07	17.68
27	8/3/2016 14:40:59	2.203	11.63	5.08	17.67
28	8/3/2016 14:41:00	2.209	11.63	5.10	17.65
29	8/3/2016 14:41:01	2.213	11.63	5.10	17.65
30	8/3/2016 14:41:02	2.217	11.69	5.11	17.64
31	8/3/2016 14:41:03	2.222	11.63	5.13	17.62
32	8/3/2016 14:41:04	2.226	11.63	5.13	17.62
33	8/3/2016 14:41:05	2.229	11.69	5.14	17.61
34	8/3/2016 14:41:06	2.231	11.69	5.15	17.60
35	8/3/2016 14:41:07	2.234	11.69	5.15	17.60
36	8/3/2016 14:41:08	2.236	11.63	5.16	17.59
37	8/3/2016 14:41:09	2.239	11.69	5.16	17.59
38	8/3/2016 14:41:10	2.241	11.69	5.17	17.58
39	8/3/2016 14:41:11	2.243	11.63	5.17	17.58
40	8/3/2016 14:41:12	2.245	11.69	5.18	17.57
41	8/3/2016 14:41:13	2.246	11.63	5.18	17.57
42	8/3/2016 14:41:14	2.248	11.69	5.19	17.56
43	8/3/2016 14:41:15	2.249	11.69	5.19	17.56
44	8/3/2016 14:41:16	2.25	11.63	5.19	17.56
45	8/3/2016 14:41:17	2.252	11.69	5.19	17.56
46	8/3/2016 14:41:18	2.253	11.63	5.20	17.55
47	8/3/2016 14:41:19	2.254	11.69	5.20	17.55

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
48	8/3/2016 14:41:20	2.256	11.63	5.20	17.55
49	8/3/2016 14:41:21	2.256	11.69	5.20	17.55
50	8/3/2016 14:41:22	2.257	11.63	5.21	17.54
51	8/3/2016 14:41:23	2.258	11.69	5.21	17.54
52	8/3/2016 14:41:24	2.259	11.63	5.21	17.54
53	8/3/2016 14:41:25	2.26	11.63	5.21	17.54
54	8/3/2016 14:41:26	2.261	11.63	5.22	17.53
55	8/3/2016 14:41:27	2.261	11.69	5.22	17.53
56	8/3/2016 14:41:28	2.262	11.63	5.22	17.53
57	8/3/2016 14:41:29	2.263	11.69	5.22	17.53
58	8/3/2016 14:41:30	2.264	11.63	5.22	17.53
59	8/3/2016 14:41:31	2.265	11.69	5.22	17.53
60	8/3/2016 14:41:32	2.265	11.63	5.22	17.53
61	8/3/2016 14:41:33	2.266	11.69	5.23	17.52
62	8/3/2016 14:41:34	2.267	11.69	5.23	17.52
63	8/3/2016 14:41:35	2.269	11.69	5.23	17.52
64	8/3/2016 14:41:36	2.269	11.69	5.23	17.52
65	8/3/2016 14:41:37	2.27	11.69	5.24	17.51
66	8/3/2016 14:41:38	2.271	11.63	5.24	17.51
67	8/3/2016 14:41:39	2.271	11.69	5.24	17.51
68	8/3/2016 14:41:40	2.272	11.69	5.24	17.51
69	8/3/2016 14:41:41	2.272	11.69	5.24	17.51
70	8/3/2016 14:41:42	2.273	11.63	5.24	17.51
71	8/3/2016 14:41:43	2.274	11.69	5.25	17.50
72	8/3/2016 14:41:44	2.274	11.69	5.25	17.50
73	8/3/2016 14:41:45	2.274	11.63	5.25	17.50
74	8/3/2016 14:41:46	2.276	11.69	5.25	17.50
75	8/3/2016 14:41:47	2.276	11.69	5.25	17.50
76	8/3/2016 14:41:48	2.276	11.69	5.25	17.50
77	8/3/2016 14:41:49	2.276	11.63	5.25	17.50
78	8/3/2016 14:41:50	2.277	11.69	5.25	17.50
79	8/3/2016 14:41:51	2.277	11.69	5.25	17.50
80	8/3/2016 14:41:52	2.278	11.69	5.25	17.50
81	8/3/2016 14:41:53	2.278	11.69	5.25	17.50
82	8/3/2016 14:41:54	2.279	11.69	5.26	17.49
83	8/3/2016 14:41:55	2.28	11.69	5.26	17.49
84	8/3/2016 14:41:56	2.28	11.63	5.26	17.49
85	8/3/2016 14:41:57	2.28	11.69	5.26	17.49
86	8/3/2016 14:41:58	2.281	11.69	5.26	17.49
87	8/3/2016 14:41:59	2.281	11.69	5.26	17.49
88	8/3/2016 14:42:00	2.282	11.63	5.26	17.49
89	8/3/2016 14:42:01	2.282	11.69	5.26	17.49
90	8/3/2016 14:42:02	2.282	11.69	5.26	17.49
91	8/3/2016 14:42:03	2.283	11.69	5.27	17.48
92	8/3/2016 14:42:04	2.283	11.69	5.27	17.48
93	8/3/2016 14:42:05	2.283	11.69	5.27	17.48
94	8/3/2016 14:42:06	2.284	11.63	5.27	17.48
95	8/3/2016 14:42:07	2.284	11.69	5.27	17.48
96	8/3/2016 14:42:08	2.285	11.69	5.27	17.48
97	8/3/2016 14:42:09	2.285	11.69	5.27	17.48
98	8/3/2016 14:42:10	2.285	11.69	5.27	17.48
99	8/3/2016 14:42:11	2.285	11.69	5.27	17.48
100	8/3/2016 14:42:12	2.286	11.63	5.27	17.48
101	8/3/2016 14:42:13	2.286	11.63	5.27	17.48
102	8/3/2016 14:42:14	2.286	11.69	5.27	17.48
103	8/3/2016 14:42:15	2.287	11.69	5.28	17.47
104	8/3/2016 14:42:16	2.287	11.63	5.28	17.47
105	8/3/2016 14:42:17	2.288	11.69	5.28	17.47
106	8/3/2016 14:42:18	2.288	11.69	5.28	17.47
107	8/3/2016 14:42:19	2.288	11.63	5.28	17.47
108	8/3/2016 14:42:20	2.289	11.69	5.28	17.47
109	8/3/2016 14:42:21	2.289	11.63	5.28	17.47
110	8/3/2016 14:42:22	2.289	11.69	5.28	17.47
111	8/3/2016 14:42:23	2.289	11.63	5.28	17.47
112	8/3/2016 14:42:24	2.289	11.69	5.28	17.47
113	8/3/2016 14:42:25	2.289	11.63	5.28	17.47
114	8/3/2016 14:42:26	2.29	11.63	5.28	17.47
115	8/3/2016 14:42:27	2.29	11.63	5.28	17.47
116	8/3/2016 14:42:28	2.291	11.63	5.28	17.47
117	8/3/2016 14:42:29	2.291	11.63	5.28	17.47
118	8/3/2016 14:42:30	2.291	11.69	5.28	17.47
119	8/3/2016 14:42:31	2.291	11.69	5.28	17.47

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
120	8/3/2016 14:42:32	2.292	11.63	5.29	17.46
121	8/3/2016 14:42:33	2.292	11.63	5.29	17.46
122	8/3/2016 14:42:34	2.292	11.63	5.29	17.46
123	8/3/2016 14:42:35	2.292	11.63	5.29	17.46
124	8/3/2016 14:42:36	2.293	11.63	5.29	17.46
125	8/3/2016 14:42:37	2.293	11.63	5.29	17.46
126	8/3/2016 14:42:38	2.293	11.69	5.29	17.46
127	8/3/2016 14:42:39	2.294	11.63	5.29	17.46
128	8/3/2016 14:42:40	2.294	11.69	5.29	17.46
129	8/3/2016 14:42:41	2.294	11.63	5.29	17.46
130	8/3/2016 14:42:42	2.295	11.63	5.29	17.46
131	8/3/2016 14:42:43	2.295	11.63	5.29	17.46
132	8/3/2016 14:42:44	2.295	11.69	5.29	17.46
133	8/3/2016 14:42:45	2.295	11.63	5.29	17.46
134	8/3/2016 14:42:46	2.295	11.63	5.29	17.46
135	8/3/2016 14:42:47	2.295	11.63	5.29	17.46
136	8/3/2016 14:42:48	2.296	11.63	5.30	17.45
137	8/3/2016 14:42:49	2.296	11.63	5.30	17.45
138	8/3/2016 14:42:50	2.296	11.63	5.30	17.45
139	8/3/2016 14:42:51	2.297	11.63	5.30	17.45
140	8/3/2016 14:42:52	2.297	11.63	5.30	17.45
141	8/3/2016 14:42:53	2.297	11.63	5.30	17.45
142	8/3/2016 14:42:54	2.297	11.63	5.30	17.45
143	8/3/2016 14:42:55	2.297	11.63	5.30	17.45
144	8/3/2016 14:42:56	2.298	11.63	5.30	17.45
145	8/3/2016 14:42:57	2.298	11.63	5.30	17.45
146	8/3/2016 14:42:58	2.298	11.63	5.30	17.45
147	8/3/2016 14:42:59	2.298	11.63	5.30	17.45
148	8/3/2016 14:43:00	2.298	11.63	5.30	17.45
149	8/3/2016 14:43:01	2.298	11.63	5.30	17.45
150	8/3/2016 14:43:02	2.299	11.69	5.30	17.45
151	8/3/2016 14:43:03	2.299	11.63	5.30	17.45
152	8/3/2016 14:43:04	2.299	11.63	5.30	17.45
153	8/3/2016 14:43:05	2.3	11.63	5.31	17.44
154	8/3/2016 14:43:06	2.299	11.63	5.30	17.45
155	8/3/2016 14:43:07	2.3	11.63	5.31	17.44
156	8/3/2016 14:43:08	2.3	11.63	5.31	17.44
157	8/3/2016 14:43:09	2.3	11.63	5.31	17.44
158	8/3/2016 14:43:10	2.3	11.63	5.31	17.44
159	8/3/2016 14:43:11	2.301	11.63	5.31	17.44
160	8/3/2016 14:43:12	2.301	11.63	5.31	17.44
161	8/3/2016 14:43:13	2.301	11.63	5.31	17.44
162	8/3/2016 14:43:14	2.301	11.63	5.31	17.44
163	8/3/2016 14:43:15	2.301	11.63	5.31	17.44
164	8/3/2016 14:43:16	2.302	11.63	5.31	17.44
165	8/3/2016 14:43:17	2.301	11.63	5.31	17.44
166	8/3/2016 14:43:18	2.301	11.63	5.31	17.44
167	8/3/2016 14:43:19	2.302	11.63	5.31	17.44
168	8/3/2016 14:43:20	2.302	11.63	5.31	17.44
169	8/3/2016 14:43:21	2.302	11.63	5.31	17.44
170	8/3/2016 14:43:22	2.302	11.63	5.31	17.44
171	8/3/2016 14:43:23	2.302	11.63	5.31	17.44
172	8/3/2016 14:43:24	2.302	11.63	5.31	17.44
173	8/3/2016 14:43:25	2.303	11.63	5.31	17.44
174	8/3/2016 14:43:26	2.303	11.63	5.31	17.44
175	8/3/2016 14:43:27	2.303	11.63	5.31	17.44
176	8/3/2016 14:43:28	2.303	11.63	5.31	17.44
177	8/3/2016 14:43:29	2.303	11.63	5.31	17.44
178	8/3/2016 14:43:30	2.303	11.63	5.31	17.44
179	8/3/2016 14:43:31	2.303	11.63	5.31	17.44
180	8/3/2016 14:43:32	2.303	11.63	5.31	17.44
181	8/3/2016 14:43:33	2.303	11.63	5.31	17.44
182	8/3/2016 14:43:34	2.303	11.63	5.31	17.44
183	8/3/2016 14:43:35	2.304	11.63	5.31	17.44
184	8/3/2016 14:43:36	2.304	11.63	5.31	17.44
185	8/3/2016 14:43:37	2.304	11.63	5.31	17.44
186	8/3/2016 14:43:38	2.304	11.63	5.31	17.44
187	8/3/2016 14:43:39	2.304	11.63	5.31	17.44
188	8/3/2016 14:43:40	2.304	11.63	5.31	17.44
189	8/3/2016 14:43:41	2.305	11.63	5.32	17.43
190	8/3/2016 14:43:42	2.305	11.63	5.32	17.43
191	8/3/2016 14:43:43	2.304	11.63	5.31	17.44

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
192	8/3/2016 14:43:44	2.305	11.63	5.32	17.43
193	8/3/2016 14:43:45	2.305	11.63	5.32	17.43
194	8/3/2016 14:43:46	2.305	11.63	5.32	17.43
195	8/3/2016 14:43:47	2.305	11.63	5.32	17.43
196	8/3/2016 14:43:48	2.306	11.63	5.32	17.43
197	8/3/2016 14:43:49	2.305	11.63	5.32	17.43
198	8/3/2016 14:43:50	2.306	11.63	5.32	17.43
199	8/3/2016 14:43:51	2.305	11.63	5.32	17.43
200	8/3/2016 14:43:52	2.305	11.63	5.32	17.43
201	8/3/2016 14:44:02	2.307	11.44	5.32	17.43
202	8/3/2016 14:44:12	2.307	11.44	5.32	17.43
203	8/3/2016 14:44:22	2.308	11.38	5.32	17.43
204	8/3/2016 14:44:32	2.309	11.38	5.33	17.42
205	8/3/2016 14:44:42	2.31	11.38	5.33	17.42
206	8/3/2016 14:44:52	2.31	11.31	5.33	17.42
207	8/3/2016 14:45:02	2.311	11.31	5.33	17.42
208	8/3/2016 14:45:12	2.312	11.31	5.33	17.42
209	8/3/2016 14:45:22	2.311	11.31	5.33	17.42
210	8/3/2016 14:45:32	2.312	11.25	5.33	17.42
211	8/3/2016 14:45:42	2.313	11.25	5.34	17.41
212	8/3/2016 14:45:52	2.313	11.25	5.34	17.41
213	8/3/2016 14:46:02	2.313	11.25	5.34	17.41
214	8/3/2016 14:46:12	2.314	11.25	5.34	17.41
215	8/3/2016 14:46:22	2.314	11.25	5.34	17.41
216	8/3/2016 14:46:32	2.315	11.25	5.34	17.41
217	8/3/2016 14:46:42	2.315	11.25	5.34	17.41
218	8/3/2016 14:46:52	2.315	11.19	5.34	17.41
219	8/3/2016 14:47:02	2.315	11.19	5.34	17.41
220	8/3/2016 14:47:12	2.315	11.19	5.34	17.41
221	8/3/2016 14:47:22	2.315	11.19	5.34	17.41
222	8/3/2016 14:47:32	2.315	11.19	5.34	17.41
223	8/3/2016 14:47:42	2.315	11.19	5.34	17.41
224	8/3/2016 14:47:52	2.315	11.19	5.34	17.41
225	8/3/2016 14:48:02	2.315	11.19	5.34	17.41
226	8/3/2016 14:48:12	2.316	11.19	5.34	17.41
227	8/3/2016 14:48:22	2.315	11.19	5.34	17.41
228	8/3/2016 14:48:32	2.316	11.19	5.34	17.41
229	8/3/2016 14:48:42	2.317	11.19	5.34	17.41
230	8/3/2016 14:48:52	2.317	11.19	5.34	17.41
231	8/3/2016 14:49:02	2.317	11.13	5.34	17.41
232	8/3/2016 14:49:12	2.318	11.13	5.35	17.40
233	8/3/2016 14:49:22	2.317	11.13	5.34	17.41
234	8/3/2016 14:49:32	2.318	11.13	5.35	17.40
235	8/3/2016 14:49:42	2.319	11.19	5.35	17.40
236	8/3/2016 14:49:52	2.318	11.13	5.35	17.40
237	8/3/2016 14:50:02	2.318	11.13	5.35	17.40
238	8/3/2016 14:50:12	2.317	11.13	5.34	17.41
239	8/3/2016 14:50:22	2.318	11.19	5.35	17.40
240	8/3/2016 14:50:32	2.318	11.13	5.35	17.40
241	8/3/2016 14:50:42	2.318	11.13	5.35	17.40
242	8/3/2016 14:50:52	2.317	11.19	5.34	17.41
243	8/3/2016 14:51:02	2.317	11.19	5.34	17.41
244	8/3/2016 14:51:12	2.317	11.19	5.34	17.41
245	8/3/2016 14:51:22	2.317	11.19	5.34	17.41
246	8/3/2016 14:51:32	2.316	11.19	5.34	17.41
247	8/3/2016 14:51:42	2.316	11.19	5.34	17.41
248	8/3/2016 14:51:52	2.317	11.19	5.34	17.41
249	8/3/2016 14:52:02	2.317	11.19	5.34	17.41
250	8/3/2016 14:52:12	2.317	11.19	5.34	17.41
251	8/3/2016 14:52:22	2.317	11.25	5.34	17.41
252	8/3/2016 14:52:32	2.317	11.19	5.34	17.41
253	8/3/2016 14:52:42	2.317	11.19	5.34	17.41
254	8/3/2016 14:52:52	2.317	11.25	5.34	17.41
255	8/3/2016 14:53:02	2.317	11.25	5.34	17.41
256	8/3/2016 14:53:12	2.317	11.25	5.34	17.41
257	8/3/2016 14:53:22	2.317	11.25	5.34	17.41
258	8/3/2016 14:53:32	2.316	11.25	5.34	17.41
259	8/3/2016 14:53:42	2.317	11.31	5.34	17.41
260	8/3/2016 14:53:52	2.317	11.25	5.34	17.41
261	8/3/2016 14:54:02	2.317	11.25	5.34	17.41
262	8/3/2016 14:54:12	2.317	11.31	5.34	17.41
263	8/3/2016 14:54:22	2.317	11.25	5.34	17.41

Rec #	Date/Time	Pressure(psi)	Temperature(degC)	psi to ft H2O	Adj. DTW (ft btoc)
264	8/3/2016 14:54:32	2.317	11.31	5.34	17.41
265	8/3/2016 14:54:42	2.317	11.31	5.34	17.41
266	8/3/2016 14:54:52	2.317	11.31	5.34	17.41
267	8/3/2016 14:55:02	2.317	11.31	5.34	17.41
268	8/3/2016 14:55:12	2.317	11.31	5.34	17.41
269	8/3/2016 14:55:22	2.316	11.31	5.34	17.41
270	8/3/2016 14:55:32	2.317	11.31	5.34	17.41
271	8/3/2016 14:55:42	2.316	11.31	5.34	17.41
272	8/3/2016 14:55:52	2.316	11.31	5.34	17.41
273	8/3/2016 14:56:02	2.316	11.38	5.34	17.41
274	8/3/2016 14:56:12	2.317	11.31	5.34	17.41
275	8/3/2016 14:56:22	2.317	11.38	5.34	17.41
276	8/3/2016 14:56:32	2.317	11.38	5.34	17.41
277	8/3/2016 14:56:42	2.317	11.38	5.34	17.41
278	8/3/2016 14:56:52	2.317	11.38	5.34	17.41
279	8/3/2016 14:57:02	2.317	11.38	5.34	17.41
280	8/3/2016 14:57:12	2.316	11.38	5.34	17.41
281	8/3/2016 14:57:22	2.315	11.5	5.34	17.41
282	8/3/2016 14:57:32	2.316	11.56	5.34	17.41
283	8/3/2016 14:57:42	2.315	11.63	5.34	17.41
284	8/3/2016 14:57:52	2.315	11.63	5.34	17.41
285	8/3/2016 14:58:02	2.315	11.63	5.34	17.41

11-Aug-2016

Sean Craven
Merit Energy
1510 Thomas Rd
PO Box 910
Kalkaska, MI 49646

Re: **ECT (Merit 36- Hartland Proj 130685)** Work Order: **1608304**

Dear Sean,

ALS Environmental received 15 samples on 05-Aug-2016 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 31.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Gary Byar

Electronically approved by: Gary Byar

Gary Byar
Project Manager

Certificate No: MI: 0022

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 11-Aug-16

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
Work Order: **1608304**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1608304-01	MW-8	Water		8/3/2016 10:55	8/5/2016 10:00	☐
1608304-02	MW-15	Water		8/3/2016 11:05	8/5/2016 10:00	☐
1608304-02	MW-15	Water		8/3/2016 11:05	8/5/2016 10:00	☐
1608304-03	MW-16	Water		8/3/2016 12:20	8/5/2016 10:00	☐
1608304-04	MW-9	Water		8/3/2016 12:45	8/5/2016 10:00	☐
1608304-05	MW-6d	Water		8/3/2016 13:35	8/5/2016 10:00	☐
1608304-06	Dup 1	Water		8/3/2016	8/5/2016 10:00	☐
1608304-07	MW-10	Water		8/3/2016 14:15	8/5/2016 10:00	☐
1608304-08	MW-6	Water		8/3/2016 14:40	8/5/2016 10:00	☐
1608304-09	MW-4	Water		8/3/2016 15:25	8/5/2016 10:00	☐
1608304-10	MW-12d	Water		8/3/2016 15:55	8/5/2016 10:00	☐
1608304-11	MW-7	Water		8/3/2016 16:50	8/5/2016 10:00	☐
1608304-12	MW-12s	Water		8/3/2016 17:05	8/5/2016 10:00	☐
1608304-12	MW-12s	Water		8/3/2016 17:05	8/5/2016 10:00	☐
1608304-13	FB-1	Water		8/4/2016 09:30	8/5/2016 10:00	☐
1608304-14	MW-11	Water		8/4/2016 10:15	8/5/2016 10:00	☐
1608304-15	MW-13	Water		8/4/2016 11:15	8/5/2016 10:00	☐
1608304-15	MW-13	Water		8/4/2016 11:15	8/5/2016 10:00	☐

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-8 **Lab ID:** 1608304-01
Collection Date: 8/3/2016 10:55 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 06:39 AM
Surr: 2,4,6-Tribromophenol	*56.8*		*38-115*	*%REC*	1	8/9/2016 06:39 AM
Surr: 2-Fluorobiphenyl	*58.2*		*32-100*	*%REC*	1	8/9/2016 06:39 AM
Surr: 2-Fluorophenol	*26.5*		*22-59*	*%REC*	1	8/9/2016 06:39 AM
Surr: 4-Terphenyl-d14	*86.4*		*23-112*	*%REC*	1	8/9/2016 06:39 AM
Surr: Nitrobenzene-d5	*56.5*		*31-93*	*%REC*	1	8/9/2016 06:39 AM
Surr: Phenol-d6	*14.8*		*13-36*	*%REC*	1	8/9/2016 06:39 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
Work Order: 1608304
Sample ID: MW-15
Lab ID: 1608304-02
Collection Date: 8/3/2016 11:05 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3005A / 8/8/16	Analyst: **JEC**
Manganese	**0.011**		**0.0050**	**mg/L**	1	8/9/2016 09:52 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 06:59 AM
Surr: 2,4,6-Tribromophenol	*58.4*		*38-115*	*%REC*	1	8/9/2016 06:59 AM
Surr: 2-Fluorobiphenyl	*55.8*		*32-100*	*%REC*	1	8/9/2016 06:59 AM
Surr: 2-Fluorophenol	*26.3*		*22-59*	*%REC*	1	8/9/2016 06:59 AM
Surr: 4-Terphenyl-d14	*80.3*		*23-112*	*%REC*	1	8/9/2016 06:59 AM
Surr: Nitrobenzene-d5	*54.1*		*31-93*	*%REC*	1	8/9/2016 06:59 AM
Surr: Phenol-d6	*15.3*		*13-36*	*%REC*	1	8/9/2016 06:59 AM
CHEMICAL OXYGEN DEMAND			**E410.4 R2.0**			Analyst: **JJG**
Chemical Oxygen Demand	**12**		**5.0**	**mg/L**	1	8/5/2016 02:25 PM
FERROUS IRON			**A3500-FE B-11**			Analyst: **JB**
Ferrous Iron (laboratory)	ND		0.050	mg/L	1	8/5/2016 12:30 PM
NITROGEN, NITRATE-NITRITE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate-Nitrite	**3.5**		**0.020**	**mg/L**	1	8/5/2016 12:07 PM
SULFATE			**A4500-SO4 E-97**			Analyst: **ED**
Sulfate	**20**		**1.0**	**mg/L**	1	8/8/2016 05:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
Work Order: 1608304
Sample ID: MW-16
Lab ID: 1608304-03
Collection Date: 8/3/2016 12:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 07:19 AM
Surr: 2,4,6-Tribromophenol	*59.6*		*38-115*	*%REC*	1	8/9/2016 07:19 AM
Surr: 2-Fluorobiphenyl	*71.0*		*32-100*	*%REC*	1	8/9/2016 07:19 AM
Surr: 2-Fluorophenol	*29.7*		*22-59*	*%REC*	1	8/9/2016 07:19 AM
Surr: 4-Terphenyl-d14	*80.5*		*23-112*	*%REC*	1	8/9/2016 07:19 AM
Surr: Nitrobenzene-d5	*71.9*		*31-93*	*%REC*	1	8/9/2016 07:19 AM
Surr: Phenol-d6	*15.9*		*13-36*	*%REC*	1	8/9/2016 07:19 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-9 **Lab ID:** 1608304-04
Collection Date: 8/3/2016 12:45 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 07:39 AM
Surr: 2,4,6-Tribromophenol	*59.4*		*38-115*	*%REC*	1	8/9/2016 07:39 AM
Surr: 2-Fluorobiphenyl	*61.8*		*32-100*	*%REC*	1	8/9/2016 07:39 AM
Surr: 2-Fluorophenol	*30.8*		*22-59*	*%REC*	1	8/9/2016 07:39 AM
Surr: 4-Terphenyl-d14	*93.6*		*23-112*	*%REC*	1	8/9/2016 07:39 AM
Surr: Nitrobenzene-d5	*56.3*		*31-93*	*%REC*	1	8/9/2016 07:39 AM
Surr: Phenol-d6	*14.3*		*13-36*	*%REC*	1	8/9/2016 07:39 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-6d **Lab ID:** 1608304-05
Collection Date: 8/3/2016 01:35 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 07:59 AM
Surr: 2,4,6-Tribromophenol	*53.2*		*38-115*	*%REC*	1	8/9/2016 07:59 AM
Surr: 2-Fluorobiphenyl	*52.7*		*32-100*	*%REC*	1	8/9/2016 07:59 AM
Surr: 2-Fluorophenol	*26.6*		*22-59*	*%REC*	1	8/9/2016 07:59 AM
Surr: 4-Terphenyl-d14	*79.5*		*23-112*	*%REC*	1	8/9/2016 07:59 AM
Surr: Nitrobenzene-d5	*54.6*		*31-93*	*%REC*	1	8/9/2016 07:59 AM
Surr: Phenol-d6	*15.2*		*13-36*	*%REC*	1	8/9/2016 07:59 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: Dup 1 **Lab ID:** 1608304-06
Collection Date: 8/3/2016 **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 08:20 AM
Surr: 2,4,6-Tribromophenol	*52.4*		*38-115*	*%REC*	1	8/9/2016 08:20 AM
Surr: 2-Fluorobiphenyl	*54.0*		*32-100*	*%REC*	1	8/9/2016 08:20 AM
Surr: 2-Fluorophenol	*26.5*		*22-59*	*%REC*	1	8/9/2016 08:20 AM
Surr: 4-Terphenyl-d14	*90.5*		*23-112*	*%REC*	1	8/9/2016 08:20 AM
Surr: Nitrobenzene-d5	*54.4*		*31-93*	*%REC*	1	8/9/2016 08:20 AM
Surr: Phenol-d6	*13.8*		*13-36*	*%REC*	1	8/9/2016 08:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-10 **Lab ID:** 1608304-07
Collection Date: 8/3/2016 02:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 08:40 AM
Surr: 2,4,6-Tribromophenol	*60.4*		*38-115*	*%REC*	1	8/9/2016 08:40 AM
Surr: 2-Fluorobiphenyl	*65.0*		*32-100*	*%REC*	1	8/9/2016 08:40 AM
Surr: 2-Fluorophenol	*30.1*		*22-59*	*%REC*	1	8/9/2016 08:40 AM
Surr: 4-Terphenyl-d14	*90.4*		*23-112*	*%REC*	1	8/9/2016 08:40 AM
Surr: Nitrobenzene-d5	*66.7*		*31-93*	*%REC*	1	8/9/2016 08:40 AM
Surr: Phenol-d6	*14.8*		*13-36*	*%REC*	1	8/9/2016 08:40 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-6 **Lab ID:** 1608304-08
Collection Date: 8/3/2016 02:40 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 05:31 AM
Surr: 2,4,6-Tribromophenol	*56.5*		*38-115*	*%REC*	1	8/9/2016 05:31 AM
Surr: 2-Fluorobiphenyl	*56.1*		*32-100*	*%REC*	1	8/9/2016 05:31 AM
Surr: 2-Fluorophenol	*26.2*		*22-59*	*%REC*	1	8/9/2016 05:31 AM
Surr: 4-Terphenyl-d14	*79.2*		*23-112*	*%REC*	1	8/9/2016 05:31 AM
Surr: Nitrobenzene-d5	*56.0*		*31-93*	*%REC*	1	8/9/2016 05:31 AM
Surr: Phenol-d6	*14.0*		*13-36*	*%REC*	1	8/9/2016 05:31 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-4 **Lab ID:** 1608304-09
Collection Date: 8/3/2016 03:25 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 09:00 AM
Surr: 2,4,6-Tribromophenol	*59.5*		*38-115*	*%REC*	1	8/9/2016 09:00 AM
Surr: 2-Fluorobiphenyl	*62.4*		*32-100*	*%REC*	1	8/9/2016 09:00 AM
Surr: 2-Fluorophenol	*32.9*		*22-59*	*%REC*	1	8/9/2016 09:00 AM
Surr: 4-Terphenyl-d14	*83.1*		*23-112*	*%REC*	1	8/9/2016 09:00 AM
Surr: Nitrobenzene-d5	*61.7*		*31-93*	*%REC*	1	8/9/2016 09:00 AM
Surr: Phenol-d6	*16.6*		*13-36*	*%REC*	1	8/9/2016 09:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
Work Order: 1608304
Sample ID: MW-12d
Lab ID: 1608304-10
Collection Date: 8/3/2016 03:55 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 09:21 AM
Surr: 2,4,6-Tribromophenol	*52.5*		*38-115*	*%REC*	1	8/9/2016 09:21 AM
Surr: 2-Fluorobiphenyl	*54.2*		*32-100*	*%REC*	1	8/9/2016 09:21 AM
Surr: 2-Fluorophenol	*27.3*		*22-59*	*%REC*	1	8/9/2016 09:21 AM
Surr: 4-Terphenyl-d14	*82.6*		*23-112*	*%REC*	1	8/9/2016 09:21 AM
Surr: Nitrobenzene-d5	*51.8*		*31-93*	*%REC*	1	8/9/2016 09:21 AM
Surr: Phenol-d6	*14.9*		*13-36*	*%REC*	1	8/9/2016 09:21 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
Work Order: 1608304
Sample ID: MW-12s
Lab ID: 1608304-12
Collection Date: 8/3/2016 05:05 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3005A / 8/8/16	Analyst: **JEC**
Manganese	**0.0063**		**0.0050**	**mg/L**	1	8/9/2016 09:57 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 09:41 AM
Surr: 2,4,6-Tribromophenol	*59.6*		*38-115*	*%REC*	1	8/9/2016 09:41 AM
Surr: 2-Fluorobiphenyl	*56.0*		*32-100*	*%REC*	1	8/9/2016 09:41 AM
Surr: 2-Fluorophenol	*26.2*		*22-59*	*%REC*	1	8/9/2016 09:41 AM
Surr: 4-Terphenyl-d14	*75.6*		*23-112*	*%REC*	1	8/9/2016 09:41 AM
Surr: Nitrobenzene-d5	*56.3*		*31-93*	*%REC*	1	8/9/2016 09:41 AM
Surr: Phenol-d6	*13.4*		*13-36*	*%REC*	1	8/9/2016 09:41 AM
CHEMICAL OXYGEN DEMAND			**E410.4 R2.0**			Analyst: **JJG**
Chemical Oxygen Demand	**12**		**5.0**	**mg/L**	1	8/5/2016 02:25 PM
FERROUS IRON			**A3500-FE B-11**			Analyst: **JB**
Ferrous Iron (laboratory)	ND		0.050	mg/L	1	8/5/2016 12:30 PM
NITROGEN, NITRATE-NITRITE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate-Nitrite	**5.6**		**0.020**	**mg/L**	1	8/5/2016 12:07 PM
SULFATE			**A4500-SO4 E-97**			Analyst: **ED**
Sulfate	**21**		**2.0**	**mg/L**	2	8/8/2016 05:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: FB-1 **Lab ID:** 1608304-13
Collection Date: 8/4/2016 09:30 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 10:02 AM
Surr: 2,4,6-Tribromophenol	*63.6*		*38-115*	*%REC*	1	8/9/2016 10:02 AM
Surr: 2-Fluorobiphenyl	*75.5*		*32-100*	*%REC*	1	8/9/2016 10:02 AM
Surr: 2-Fluorophenol	*29.3*		*22-59*	*%REC*	1	8/9/2016 10:02 AM
Surr: 4-Terphenyl-d14	*88.4*		*23-112*	*%REC*	1	8/9/2016 10:02 AM
Surr: Nitrobenzene-d5	*70.9*		*31-93*	*%REC*	1	8/9/2016 10:02 AM
Surr: Phenol-d6	*16.7*		*13-36*	*%REC*	1	8/9/2016 10:02 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-11 **Lab ID:** 1608304-14
Collection Date: 8/4/2016 10:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/9/2016 10:22 AM
Surr: 2,4,6-Tribromophenol	*66.4*		*38-115*	*%REC*	1	8/9/2016 10:22 AM
Surr: 2-Fluorobiphenyl	*67.5*		*32-100*	*%REC*	1	8/9/2016 10:22 AM
Surr: 2-Fluorophenol	*33.2*		*22-59*	*%REC*	1	8/9/2016 10:22 AM
Surr: 4-Terphenyl-d14	*93.3*		*23-112*	*%REC*	1	8/9/2016 10:22 AM
Surr: Nitrobenzene-d5	*63.4*		*31-93*	*%REC*	1	8/9/2016 10:22 AM
Surr: Phenol-d6	*15.3*		*13-36*	*%REC*	1	8/9/2016 10:22 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *11-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685) **Work Order:** 1608304
Sample ID: MW-13 **Lab ID:** 1608304-15
Collection Date: 8/4/2016 11:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP			**SW846 6010C**		Prep: SW3005A / 8/8/16	Analyst: **JEC**
Manganese	**2.2**		**0.0050**	**mg/L**	1	8/9/2016 10:03 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/8/16	Analyst: **RM**
Sulfolane	**6,600**		**200**	**µg/L**	20	8/9/2016 01:10 PM
Surr: 2,4,6-Tribromophenol	*75.4*		*38-115*	*%REC*	1	8/9/2016 10:43 AM
Surr: 2-Fluorobiphenyl	*85.4*		*32-100*	*%REC*	1	8/9/2016 10:43 AM
Surr: 2-Fluorophenol	*35.3*		*22-59*	*%REC*	1	8/9/2016 10:43 AM
Surr: 4-Terphenyl-d14	*89.0*		*23-112*	*%REC*	1	8/9/2016 10:43 AM
Surr: Nitrobenzene-d5	*73.4*		*31-93*	*%REC*	1	8/9/2016 10:43 AM
Surr: Phenol-d6	*23.0*		*13-36*	*%REC*	1	8/9/2016 10:43 AM
CHEMICAL OXYGEN DEMAND			**E410.4 R2.0**			Analyst: **JJG**
Chemical Oxygen Demand	**62**		**50**	**mg/L**	1	8/5/2016 02:10 PM
FERROUS IRON			**A3500-FE B-11**			Analyst: **JB**
Ferrous Iron (laboratory)	ND		0.050	mg/L	1	8/5/2016 12:30 PM
NITROGEN, NITRATE-NITRITE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate-Nitrite	**0.14**		**0.020**	**mg/L**	1	8/5/2016 12:07 PM
SULFATE			**A4500-SO4 E-97**			Analyst: **ED**
Sulfate	**34**		**1.0**	**mg/L**	1	8/8/2016 05:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 11-Aug-16

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
Work Order: 1608304

Case Narrative

Batch 89769 The MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Client Sample ID MW-7 - Amber liter was received broken at the laboratory. ECT was notified upon receipt.

ALS Group USA, Corp

Date: 11-Aug-16

Client: Merit Energy

Work Order: 1608304

Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **89769** Instrument ID: **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-89769-89769** Units: **mg/L** Analysis Date: **8/9/2016 08:23 PM**

Client ID: Run ID: **ICP2_160809A** SeqNo: **3969880** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	ND	0.0050								

MBLK Sample ID: **MBLK-89763-89769** Units: **mg/L** Analysis Date: **8/9/2016 08:34 PM**

Client ID: Run ID: **ICP2_160809A** SeqNo: **3969882** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	ND	0.0050								

LCS Sample ID: **LCS-89769-89769** Units: **mg/L** Analysis Date: **8/9/2016 08:29 PM**

Client ID: Run ID: **ICP2_160809A** SeqNo: **3969881** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	0.09599	0.0050	0.1	0	96	80-120	0			

LCS Sample ID: **LCS-89763-89769** Units: **mg/L** Analysis Date: **8/9/2016 08:40 PM**

Client ID: Run ID: **ICP2_160809A** SeqNo: **3969883** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	0.09844	0.0050	0.1	0	98.4	80-120	0			

MS Sample ID: **16071546-01AMS** Units: **mg/L** Analysis Date: **8/9/2016 08:56 PM**

Client ID: Run ID: **ICP2_160809A** SeqNo: **3969886** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	0.2242	0.0050	0.1	1.305	-1080	75-125	0			SO

MSD Sample ID: **16071546-01AMSD** Units: **mg/L** Analysis Date: **8/9/2016 09:02 PM**

Client ID: Run ID: **ICP2_160809A** SeqNo: **3969887** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	0.2327	0.0050	0.1	1.305	-1070	75-125	0.2242	3.73	20	SO

The following samples were analyzed in this batch: 1608304-02C 1608304-12C 1608304-15C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **89745** Instrument ID: **SVMS8** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-89745-89745** Units: **µg/L** Analysis Date: **8/8/2016 09:54 PM**
Client ID: Run ID: **SVMS8_160808A** SeqNo: **3968853** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	ND	10								
Surr: 2,4,6-Tribromophenol	*35.19*	0	*50*	0	*70.4*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*39.32*	0	*50*	0	*78.6*	*32-100*	0			
Surr: 2-Fluorophenol	*21.89*	0	*50*	0	*43.8*	*22-59*	0			
Surr: 4-Terphenyl-d14	*47.91*	0	*50*	0	*95.8*	*23-112*	0			
Surr: Nitrobenzene-d5	*39.66*	0	*50*	0	*79.3*	*31-93*	0			
Surr: Phenol-d6	*10.94*	0	*50*	0	*21.9*	*13-36*	0			

LCS Sample ID: **SLCSW1-89745-89745** Units: **µg/L** Analysis Date: **8/8/2016 10:15 PM**
Client ID: Run ID: **SVMS8_160808A** SeqNo: **3968854** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	11.15	10	20	0	55.8	30-100	0			
Surr: 2,4,6-Tribromophenol	*36.65*	0	*50*	0	*73.3*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*40.54*	0	*50*	0	*81.1*	*32-100*	0			
Surr: 2-Fluorophenol	*21.95*	0	*50*	0	*43.9*	*22-59*	0			
Surr: 4-Terphenyl-d14	*47.31*	0	*50*	0	*94.6*	*23-112*	0			
Surr: Nitrobenzene-d5	*39.8*	0	*50*	0	*79.6*	*31-93*	0			
Surr: Phenol-d6	*11.74*	0	*50*	0	*23.5*	*13-36*	0			

MS Sample ID: **1608304-08AMS** Units: **µg/L** Analysis Date: **8/9/2016 04:50 AM**
Client ID: **MW-6** Run ID: **SVMS8_160808A** SeqNo: **3968871** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	11.53	10	20	0	57.6	30-100	0			
Surr: 2,4,6-Tribromophenol	*29.72*	0	*50*	0	*59.4*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*30.91*	0	*50*	0	*61.8*	*32-100*	0			
Surr: 2-Fluorophenol	*14.98*	0	*50*	0	*30*	*22-59*	0			
Surr: 4-Terphenyl-d14	*40.22*	0	*50*	0	*80.4*	*23-112*	0			
Surr: Nitrobenzene-d5	*30.85*	0	*50*	0	*61.7*	*31-93*	0			
Surr: Phenol-d6	*7.83*	0	*50*	0	*15.7*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **89745** Instrument ID: **SVMS8** Method: **SW846 8270D**

MSD Sample ID: **1608304-08AMSD** Units: **µg/L** Analysis Date: **8/9/2016 05:11 AM**
Client ID: **MW-6** Run ID: **SVMS8_160808A** SeqNo: **3968872** Prep Date: **8/8/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	11.19	10	20	0	56	30-100	11.53	2.99	50	
Surr: 2,4,6-Tribromophenol	*31.07*	0	*50*	0	*62.1*	*38-115*	29.72	*4.44*	*40*	
Surr: 2-Fluorobiphenyl	*31.43*	0	*50*	0	*62.9*	*32-100*	30.91	*1.67*	*40*	
Surr: 2-Fluorophenol	*13.26*	0	*50*	0	*26.5*	*22-59*	14.98	*12.2*	*40*	
Surr: 4-Terphenyl-d14	*35.92*	0	*50*	0	*71.8*	*23-112*	40.22	*11.3*	*40*	
Surr: Nitrobenzene-d5	*31.34*	0	*50*	0	*62.7*	*31-93*	30.85	*1.58*	*40*	
Surr: Phenol-d6	*7.25*	0	*50*	0	*14.5*	*13-36*	7.83	*7.69*	*40*	

The following samples were analyzed in this batch:

1608304-01A	1608304-02A	1608304-03A
1608304-04A	1608304-05A	1608304-06A
1608304-07A	1608304-08A	1608304-09A
1608304-10A	1608304-12A	1608304-13A
1608304-14A	1608304-15A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **R193195** Instrument ID: **WETCHEM** Method: **A3500-FE B-11**

MBLK Sample ID: **WBLKW1-160805-R193195** Units: **mg/L** Analysis Date: **8/5/2016 12:30 PM**
Client ID: Run ID: **WETCHEM_160805G** SeqNo: **3964502** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron (laboratory)	ND	0.050								

DUP Sample ID: **1608304-02B DUP** Units: **mg/L** Analysis Date: **8/5/2016 12:30 PM**
Client ID: **MW-15** Run ID: **WETCHEM_160805G** SeqNo: **3964504** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ferrous Iron (laboratory)	ND	0.050	0	0	0		0	0	20	

The following samples were analyzed in this batch: 1608304-02B 1608304-12B 1608304-15B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **R193259** Instrument ID: **LACHAT2** Method: **E353.2 R2.0**

MBLK Sample ID: **MBLK-R193259** Units: **mg/L** Analysis Date: **8/5/2016 12:07 PM**
Client ID: Run ID: **LACHAT2_160805E** SeqNo: **3965848** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	ND	0.020								

LCS Sample ID: **LCS-R193259** Units: **mg/L** Analysis Date: **8/5/2016 12:07 PM**
Client ID: Run ID: **LACHAT2_160805E** SeqNo: **3965849** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	5.157	0.020	5	0	103	80-120	0			

MS Sample ID: **1608129-01B MS** Units: **mg/L** Analysis Date: **8/5/2016 12:07 PM**
Client ID: Run ID: **LACHAT2_160805E** SeqNo: **3965853** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	7.506	0.020	5	2.783	94.5	75-125	0			

MS Sample ID: **1608304-15D MS** Units: **mg/L** Analysis Date: **8/5/2016 12:07 PM**
Client ID: **MW-13** Run ID: **LACHAT2_160805E** SeqNo: **3965898** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	5.044	0.020	5	0.1422	98	75-125	0			

MSD Sample ID: **1608129-01B MSD** Units: **mg/L** Analysis Date: **8/5/2016 12:07 PM**
Client ID: Run ID: **LACHAT2_160805E** SeqNo: **3965854** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	7.507	0.020	5	2.783	94.5	75-125	7.506	0.0133	20	

MSD Sample ID: **1608304-15D MSD** Units: **mg/L** Analysis Date: **8/5/2016 12:07 PM**
Client ID: **MW-13** Run ID: **LACHAT2_160805E** SeqNo: **3965899** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	5.071	0.020	5	0.1422	98.6	75-125	5.044	0.534	20	

The following samples were analyzed in this batch: 1608304-02D 1608304-12D 1608304-15D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **R193320** Instrument ID: **GALLERY** Method: **A4500-SO4 E-97**

MBLK Sample ID: **WBLKW2-160808-R193320** Units: **mg/L** Analysis Date: **8/8/2016 05:15 PM**
Client ID: Run ID: **GALLERY_160808C** SeqNo: **3967226** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	ND	1.0								

MS Sample ID: **1608304-15E MS** Units: **mg/L** Analysis Date: **8/8/2016 05:15 PM**
Client ID: **MW-13** Run ID: **GALLERY_160808C** SeqNo: **3967246** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	84.16	1.0	50	34.3	99.7	75-125	0			

MSD Sample ID: **1608304-15E MSD** Units: **mg/L** Analysis Date: **8/8/2016 05:15 PM**
Client ID: **MW-13** Run ID: **GALLERY_160808C** SeqNo: **3967247** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	88.84	1.0	50	34.3	109	75-125	84.16	5.41	20	

LCS1 Sample ID: **WLCS1W2-160808-R193320** Units: **mg/L** Analysis Date: **8/8/2016 05:15 PM**
Client ID: Run ID: **GALLERY_160808C** SeqNo: **3967227** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	11.39	1.0	10	0	114	80-120	0			

LCS2 Sample ID: **WLCS2W2-160808-R193320** Units: **mg/L** Analysis Date: **8/8/2016 05:15 PM**
Client ID: Run ID: **GALLERY_160808C** SeqNo: **3967230** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	55.81	1.0	50	0	112	80-120	0			

The following samples were analyzed in this batch: 1608304-02E 1608304-12E 1608304-15E

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **R193327** Instrument ID: **WETCHEM** Method: **E410.4 R2.0**

MBLK Sample ID: **CCB/MBLANK-R193327** Units: **mg/L** Analysis Date: **8/5/2016 02:10 PM**
Client ID: Run ID: **WETCHEM_160805U** SeqNo: **3967465** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	ND	50								

LCS Sample ID: **CCV/LCS-R193327** Units: **mg/L** Analysis Date: **8/5/2016 02:10 PM**
Client ID: Run ID: **WETCHEM_160805U** SeqNo: **3967464** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	606.8	50	600	0	101	90-110	0			

MS Sample ID: **1608127-01C MS** Units: **mg/L** Analysis Date: **8/5/2016 02:10 PM**
Client ID: Run ID: **WETCHEM_160805U** SeqNo: **3967468** Prep Date: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	636	100	600	19.82	103	90-110	0			

MS Sample ID: **1608304-02D MS** Units: **mg/L** Analysis Date: **8/5/2016 02:10 PM**
Client ID: **MW-15** Run ID: **WETCHEM_160805U** SeqNo: **3967489** Prep Date: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	663.9	100	600	26.8	106	90-110	0			

MSD Sample ID: **1608127-01C MSD** Units: **mg/L** Analysis Date: **8/5/2016 02:10 PM**
Client ID: Run ID: **WETCHEM_160805U** SeqNo: **3967469** Prep Date: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	626.6	100	600	19.82	101	90-110	636	1.48	25	

MSD Sample ID: **1608304-02D MSD** Units: **mg/L** Analysis Date: **8/5/2016 02:10 PM**
Client ID: **MW-15** Run ID: **WETCHEM_160805U** SeqNo: **3967490** Prep Date: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	659.2	100	600	26.8	105	90-110	663.9	0.704	25	

The following samples were analyzed in this batch: 1608304-02D 1608304-15D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608304
Project: ECT (Merit 36- Hartland Proj 130685)

QC BATCH REPORT

Batch ID: **R193329** Instrument ID: **WETCHEM** Method: **E410.4 R2.0**

MBLK Sample ID: **CCB/MBLANK-R193329** Units: **mg/L** Analysis Date: **8/5/2016 02:25 PM**
Client ID: Run ID: **WETCHEM_160805V** SeqNo: **3967553** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	ND	5.0								

LCS Sample ID: **CCV/LCS-R193329** Units: **mg/L** Analysis Date: **8/5/2016 02:25 PM**
Client ID: Run ID: **WETCHEM_160805V** SeqNo: **3967552** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	27.59	5.0	30	0	92	90-110	0			

MS Sample ID: **1608304-02D MS** Units: **mg/L** Analysis Date: **8/5/2016 02:25 PM**
Client ID: **MW-15** Run ID: **WETCHEM_160805V** SeqNo: **3967556** Prep Date: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	40.7	10	30	11.66	96.8	90-110	0			

MSD Sample ID: **1608304-02D MSD** Units: **mg/L** Analysis Date: **8/5/2016 02:25 PM**
Client ID: **MW-15** Run ID: **WETCHEM_160805V** SeqNo: **3967557** Prep Date: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	39.96	10	30	11.66	94.3	90-110	40.7	1.83	25	

The following samples were analyzed in this batch: 1608304-02D 1608304-12D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Group USA, Corp

Date: 11-Aug-16

Client: Merit Energy
Project: ECT (Merit 36- Hartland Proj 130685)
WorkOrder: **1608304**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit backgr or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **MERITENERGY** Date/Time Received: **05-Aug-16 10:00**

Work Order: **1608304** Received by: **MEB**

Checklist completed by Meghan Broadbent 05-Aug-16 Reviewed by: Gary Byar 05-Aug-16
eSignature Date eSignature Date

Matrices: water
Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.0/4.0 3.6/3.6	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/5/2016 11:24:46 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes: Sample MW-7 liter received broken per MB - GRB

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction

Chain of Custody Form

ALS Environmental

Page 1 of 2

COC ID: 123456

☐ Cincinnati, OH +1 513 733 5336 ☒ Holland, MI +1 616 399 6070 ☐ Salt Lake City, UT +1 801 266 7700
☐ Everett, WA +1 425 356 2600 ☐ Houston, TX +1 281 530 5656 ☐ Spring City, PA +1 610 948 4903
☐ Fort Collins, CO +1 970 490 1511 ☐ Middletown, PA +1 717 944 5541 ☐ York, PA +1 717 505 5280

ALS Project Manager: | Work Order #: 1608304

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Merit #36-Holland	A	Sulfolane
Work Order		Project Number	130685, 2000	B	Ferrous Iron
Company Name	ECT, Inc.	Bill To Company	ECT-Traverse City	C	Manganese
Send Report To	Jeremy Lewandowski	Invoice Attn.		D	COD, Nitrate
Address	3399 Veterans Drive Traverse City MI	Address		E	Sulfate
City/State/Zip	Traverse City, 49684	City/State/Zip		F	
Phone	231-946-8200	Phone		G	
Fax		Fax		H	
e-Mail Address	jlewandowski@ectinc.com	e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-8	8/3/16	1055	Water	—	1	X										
2	MW-15		1105		1,2,3	5		X	X	X	X						
3	MW-16		1220		—	1											
4	MW-9		1245			1											
5	MW-6d		1335			1											
6	Dup 1		—			1											
7	MW-10		1415			1											
8	MW-6		1440			1											
9	MW-6 MS		1440			1											
↓	MW-6 MSD	↓	1440	↓	↓	1	↓										

Sampler(s): Please Print & Sign: Jason Bartholomew

Shipment Method: cooler-UPS

Required Turnaround Time: ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
	8/3/16	1915	ECT storage	
Relinquished by: ECT storage	8/4/16	1430	Received by (Laboratory): 8/5/16 1020	Cooler Temp.
Logged by (Laboratory): MB	Date: 8/5/16	Time: 1113	Checked by (Laboratory): GRB	4.0
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035				3.6

QC Package: (Check Box Below)

- ☐ Level II: Standard QC
- ☐ Level III: Std QC + Raw Data
- ☐ Level IV: SW846 CLP-Like
- ☐ Other: _____

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

ALS Environmental

Chain of Custody Form

Page 2 of 2

COC ID: 123456

- ☐ Cincinnati, OH +1 513 733 5336
- ☒ Holland, MI +1 616 399 6070
- ☐ Salt Lake City, UT +1 801 266 7700
- ☐ Everett, WA +1 425 356 2600
- ☐ Houston, TX +1 281 530 5656
- ☐ Spring City, PA +1 610 948 4903
- ☐ Fort Collins, CO +1 970 490 1511
- ☐ Middletown, PA +1 717 944 5541
- ☐ York, PA +1 717 505 5280

ALS Project Manager:		Work Order #:	1608304

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Merit #36-Hartland	A	Sulfolane
Work Order		Project Number	130685.2000	B	Ferrous Iron
Company Name	ECT, Inc.	Bill To Company	ECT-Traverse City	C	Manganese
Send Report To	J. Lewandarski	Invoice Attn.		D	COD, Nitrate
Address	See Pg 1	Address		E	Sulfate
				F	
City/State/Zip	↓	City/State/Zip		G	
Phone		Phone		H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
9 (1)	MW-4	8/3/16	1525	water	–	1	X										
10 (2)	MW-12d	↓	1555	↓	↓	1	↓										
11 (3)	MW-7	↓	1650	↓	↓	1	↓										
12 (4)	MW-12s	↓	1705	↓	1,2,3	5	↓	X	X	X	X						
13 (5)	FB-1	8/4/16	0930	↓	–	1	↓										
14 (6)	MW-11	↓	1015	↓	↓	1	↓										
15 (7)	MW-13	↓	1115	↓	1,2,3	6	↓	X	X	X	X						
8																	
9																	
10																	

**Liter for MW-7 Received broken. GRB

Sampler(s): Please Print & Sign: Jason Battaglia / [signature]

Shipment Method: cooler-UPS

Required Turnaround Time: ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other ____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
[signature]	8/3/16	1915	ECT storage	
Relinquished by: ECT storage	8/4/16	1430	Received by (Laboratory): M Brassett 8/5/16 1000	Cooler Temp.: 4.0 / 3.6
Logged by (Laboratory): MB	8/5/16	1113	Checked by (Laboratory): GRB	

QC Package: (Check Box Below)
- Level II: Standard QC
- Level III: Std QC + Raw Data
- Level IV: SW846 CLP-Like
- Other: ____

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

FROM:
LISA ZUBER
(517) 272-9200
ECT, INC.
3125 SOVEREIGN DRIVE
LANSING MI 48911-4240

55 LBS 1 OF 1

MI 495 9-04

UPS NEXT DAY AIR **1**
TRACKING #: 1Z V54 9W4 01 5074 2947

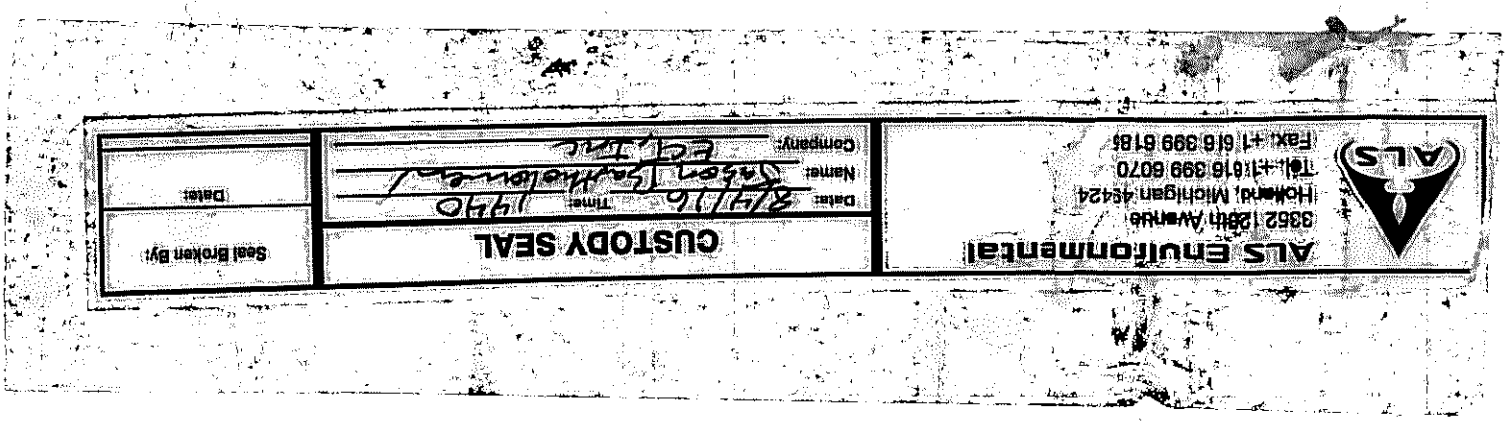
SHIP TO:
SAMPLE RECEIVING
(616) 399-6070
ALS LABORATORY GROUP
3352 128TH AVENUE
HOLLAND MI 49424-9263

REF 1:130685, 2000

BILLING: 3RD PARTY

WS 19.0.24 Xerox WorkCen 78.0A 07/2016

Fold here and place in label pouch



FROM:
LISA ZUBER
(517) 272-9200
ECT, INC.
3125 SOVEREIGN DRIVE
LANSING MI 48911-4240

50 LBS **1 OF 1**

MI 495 9-04

UPS NEXT DAY AIR
TRACKING #: 1Z V54 9W4 01 5282 0135

1

SHIP TO:

SAMPLE RECEIVING
(616) 399-6070
ALS LABORATORY GROUP
3352 128TH AVENUE
HOLLAND MI 49424-9263

REF 1:130685, 2000

BILLING: 3RD PARTY

WS 19.0.24 Xerox WorkCen 78.0A 07/2018

Fold here and place in label pouch

19-Aug-2016

Sean Craven
Merit Energy
1510 Thomas Rd
PO Box 910
Kalkaska, MI 49646

Re: **ECT (Merit 36 - Hartland 130685.2000)** Work Order: **1608806**

Dear Sean,

ALS Environmental received 1 sample on 13-Aug-2016 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Gary Byar

Electronically approved by: Gary Byar

Gary Byar
Project Manager

Certificate No: MI: 0022

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 19-Aug-16

Client: Merit Energy
Project: ECT (Merit 36 - Hartland 130685.2000)
Work Order: **1608806**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1608806-01	MW-7	Water		8/11/2016 15:15	8/13/2016 10:00	☐

ALS Group USA, Corp

Date: *19-Aug-16*

Client: Merit Energy
Project: ECT (Merit 36 - Hartland 130685.2000) **Work Order:** 1608806
Sample ID: MW-7 **Lab ID:** 1608806-01
Collection Date: 8/11/2016 03:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW846 8270D**		Prep: SW3510 / 8/17/16	Analyst: **RM**
Sulfolane	ND		10	µg/L	1	8/18/2016 03:35 PM
Surr: 2,4,6-Tribromophenol	*76.8*		*38-115*	*%REC*	1	8/18/2016 03:35 PM
Surr: 2-Fluorobiphenyl	*73.8*		*32-100*	*%REC*	1	8/18/2016 03:35 PM
Surr: 2-Fluorophenol	*40.3*		*22-59*	*%REC*	1	8/18/2016 03:35 PM
Surr: 4-Terphenyl-d14	*100*		*23-112*	*%REC*	1	8/18/2016 03:35 PM
Surr: Nitrobenzene-d5	*66.3*		*31-93*	*%REC*	1	8/18/2016 03:35 PM
Surr: Phenol-d6	*22.8*		*13-36*	*%REC*	1	8/18/2016 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Aug-16

Client: Merit Energy

Work Order: 1608806

Project: ECT (Merit 36 - Hartland 130685.2000)

QC BATCH REPORT

Batch ID: **90176** Instrument ID: **SVMS8** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-90176-90176** Units: **µg/L** Analysis Date: **8/18/2016 02:33 PM**

Client ID: Run ID: **SVMS8_160818A** SeqNo: **3985257** Prep Date: **8/17/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	ND	10								
Surr: 2,4,6-Tribromophenol	*45.73*	0	*50*	0	*91.5*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*42.4*	0	*50*	0	*84.8*	*32-100*	0			
Surr: 2-Fluorophenol	*25.29*	0	*50*	0	*50.6*	*22-59*	0			
Surr: 4-Terphenyl-d14	*55.71*	0	*50*	0	*111*	*23-112*	0			
Surr: Nitrobenzene-d5	*39.78*	0	*50*	0	*79.6*	*31-93*	0			
Surr: Phenol-d6	*15.15*	0	*50*	0	*30.3*	*13-36*	0			

LCS Sample ID: **SLCSW1-90176-90176** Units: **µg/L** Analysis Date: **8/18/2016 02:54 PM**

Client ID: Run ID: **SVMS8_160818A** SeqNo: **3985258** Prep Date: **8/17/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	61.72	10	100	0	61.7	30-100	0			
Surr: 2,4,6-Tribromophenol	*44.5*	0	*50*	0	*89*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*43.12*	0	*50*	0	*86.2*	*32-100*	0			
Surr: 2-Fluorophenol	*23.87*	0	*50*	0	*47.7*	*22-59*	0			
Surr: 4-Terphenyl-d14	*54.53*	0	*50*	0	*109*	*23-112*	0			
Surr: Nitrobenzene-d5	*40.09*	0	*50*	0	*80.2*	*31-93*	0			
Surr: Phenol-d6	*14.04*	0	*50*	0	*28.1*	*13-36*	0			

MS Sample ID: **1608806-01A MS** Units: **µg/L** Analysis Date: **8/18/2016 03:14 PM**

Client ID: **MW-7** Run ID: **SVMS8_160818A** SeqNo: **3985259** Prep Date: **8/17/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	61.41	10	100	0	61.4	30-100	0			
Surr: 2,4,6-Tribromophenol	*41.99*	0	*50*	0	*84*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*39.32*	0	*50*	0	*78.6*	*32-100*	0			
Surr: 2-Fluorophenol	*20.47*	0	*50*	0	*40.9*	*22-59*	0			
Surr: 4-Terphenyl-d14	*50.9*	0	*50*	0	*102*	*23-112*	0			
Surr: Nitrobenzene-d5	*35.86*	0	*50*	0	*71.7*	*31-93*	0			
Surr: Phenol-d6	*12.21*	0	*50*	0	*24.4*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Merit Energy
Work Order: 1608806
Project: ECT (Merit 36 - Hartland 130685.2000)

QC BATCH REPORT

Batch ID: **90176** Instrument ID: **SVMS8** Method: **SW846 8270D**

DUP Sample ID: **1608866-01B DUP** Units: **µg/L** Analysis Date: **8/18/2016 03:56 PM**

Client ID: Run ID: **SVMS8_160818A** SeqNo: **3985261** Prep Date: **8/17/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfolane	ND	10	0	0	0		0	0	30	
Surr: 2,4,6-Tribromophenol	*37.28*	0	*50*	0	*74.6*	*38-115*	42.71	*13.6*	*40*	
Surr: 2-Fluorobiphenyl	*31.76*	0	*50*	0	*63.5*	*32-100*	42.66	*29.3*	*40*	
Surr: 2-Fluorophenol	*16.05*	0	*50*	0	*32.1*	*22-59*	23.24	*36.6*	*40*	
Surr: 4-Terphenyl-d14	*43.2*	0	*50*	0	*86.4*	*23-112*	53.84	*21.9*	*40*	
Surr: Nitrobenzene-d5	*29.43*	0	*50*	0	*58.9*	*31-93*	39.35	*28.8*	*40*	
Surr: Phenol-d6	*9.07*	0	*50*	0	*18.1*	*13-36*	13.44	*38.8*	*40*	

The following samples were analyzed in this batch: 1608806-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Group USA, Corp

Date: 19-Aug-16

Client: Merit Energy
Project: ECT (Merit 36 - Hartland 130685.2000)
WorkOrder: **1608806**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit backgr or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **MERITENERGY** Date/Time Received: **13-Aug-16 10:00**

Work Order: **1608806** Received by: **JR**

Checklist completed by J oseph R ibar 13-Aug-16 Reviewed by: G ary B yar 15-Aug-16
eSignature Date eSignature Date

Matrices: water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.8c/1.8c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	8/13/2016 11:21:47 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction

Chain of Custody Form

ALS Environmental

Page 1 of 1

COC ID: 123456

☐ Cincinnati, OH +1 513 733 5336 ☒ Holland, MI +1 616 399 6070 ☐ Salt Lake City, UT +1 801 266 7700
☐ Everett, WA +1 425 356 2600 ☐ Houston, TX +1 281 530 5656 ☐ Spring City, PA +1 610 948 4903
☐ Fort Collins, CO +1 970 490 1511 ☐ Middletown, PA +1 717 944 5541 ☐ York, PA +1 717 505 5280

1608806 MISC.

ALS Project Manager: Cary Byar | Work Order #: Merit Energy

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Merit #36-Holland	A	Sulfolane
Work Order		Project Number	130685, 2000	B	
Company Name	ECT, Inc.	Bill To Company	Merit	C	
Send Report To	J. Lewandowski, Sean Craven	Invoice Attn.		D	
Address	Traverse City office	Address		E	
				F	
City/State/Zip		City/State/Zip		G	
Phone	231-946-8200	Phone		H	
Fax		Fax		I	
e-Mail Address	jlewandowski@ectinc.com	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-7	8/11/16	1515	water	-	2	X										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: Jason Bartholomew / [signature]

Shipment Method: Cooler-Fed Ex

Required Turnaround Time: ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
[signature]	8/11/16	1910	ECT Storage
Relinquished by: ECT storage	Date: 8/12/16	Time: 1430	Received by (Laboratory): [signature]
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): GR3

Notes:

Cooler Temp. 1.8C

QC Package: (Check Box Below)
- ☐ Level II: Standard QC
- ☐ Level III: Std QC + Raw Data
- ☐ Level IV: SW846 CLP-Like
- ☐ Other: _____

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

FedEx Saturday Delivery

SL

ORIGIN ID:LANA (517) 272-9200
JASON BARTHOLOMEW
ECT, INC.
3125 SOVEREIGN DR
SUITE 9C
LANSING, MI 48911
UNITED STATES US

SHIP DATE: 12AUG16
ACTWGT: 12.00 LB
CAD: 2264840/INET3790
DIMS: 13x18x16 IN

BILL SENDER

TO SAMPLE RECEIVING
ALS LABORATORY GROUP
3352 128TH AVENUE

HOLLAND MI 49424

(616) 399-6070
INV
PO

REF REBILLABLE MERIT
DEPT

FedEx Express

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 9201 7769 8304 4493

49424
MI-US GRR

68 HLMA

RT 769 5 12.00 A
ST 10 4493 08.13